BUILDING CAPACITY

CENTRE FOR AUTISM
MIDDLETOWN
2007–2017

CONFERENCE 2017

BUILDING CAPACITY

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CONTENTS

INTRODUCTION

This is the twenty third Research Bulletin produced by Middletown Centre for Autism and it provides summaries of ten articles spanning from 2011-2017.

This is a special edition of the Research Bulletin that has been prepared to complement the Centre's second International Conference on 12 and 13 May 2017. The Conference and the Bulletin address the area of capacity building in autism. Capacity building refers to the process of fostering efficacy, confidence and capability in people with autism, their families, schools and communities.

Middletown Centre through its intervention, support, research and training has been building capacity throughout Ireland and Northern Ireland since 2007.

This Bulletin is part of the ongoing process of providing the conditions and the tools for growth, strength and fostering positive change in the lives of people with autism, their families and communities.

The Bulletin commences with biographies and interviews with the Conference speakers: Dr. Temple Grandin, Dr. Jed Baker, Gina Davies and Michelle Garcia Winner.

Each speaker has contributed to the process of building capacity and growing communities worldwide.

Please note that the views represented in this document do not necessarily reflect the views of Middletown Centre for Autism. Reviewers have, where possible, used the original language of the article, which may differ from UK and Ireland usage and the usage of a range of terminologies for autism.

DR TEMPLE GRANDIN

www.templegrandin.com

Temple Grandin was born in Boston, Massachusetts. At the age of two she had no speech and displayed signs of autism. Many hours of speech therapy and intensive teaching enabled Temple to learn speech. As a teenager, life was hard with constant teasing. Mentoring by her high school science teacher and her aunt on her ranch in Arizona motivated Temple to study and pursue a career as a scientist and livestock equipment designer.

As an individual with autism, Dr Grandin has had many remarkable achievements. Firstly, she has been a pioneer in improving the handling and welfare of farm animals. She has also been instrumental in implementing animal welfare auditing programmes that are used by McDonald's, Wendy's, Whole Foods and other corporations. Temple has appeared on numerous TV shows such as 20/20, Larry King Live and Prime Time. Her books include: Thinking in Pictures, Livestock Handling and Transport and The Autistic Brain. Her book Animals in Translation has been on the New York Times Bestseller List.

Dr Grandin has received numerous awards including the Meritorious Achievement Award from the Livestock Conservation Institute. She was named a Distinguished Alumni at Franklin Pierce College and received honorary doctorates from McGill University, University of Illinois,

Texas A&M, Carnegie Mellon University and Duke University. She has also won prestigious industry awards including the Richard L Knowlton Award from Meat Marketing and Technology Magazine, the Industry Advancement Award from the American Meat Institute, the Beef Top 40 industry leaders and the Lifetime Achievement Award from The National Cattlemen's Beef Association.

In 2015, she was given the Distinguished Service Award by the American Farm Bureau Federation and Meritorious Award from the OIE. Home Box Office (HBO) has premiered a movie about Temple's early life and career with the livestock industry. The movie received seven Emmy awards, a Golden Globe and a Peabody Award. In 2016, Temple was inducted into the American Academy of Arts and Sciences.

DR JED BAKER

Dr Jed Baker is the director of the Social Skills Training Project, an organisation serving individuals with autism and social communication problems. He is on the professional advisory board of Autism Today, ASPEN, ANSWER, YAI, the Kelberman Center and several other autism organisations. In addition, he writes, lectures and provides training internationally on the topic of social skills training and managing challenging behaviours.

He is an award-winning author of eight books on social skills training and managing challenging behaviours. His work has also been featured on ABC World News, Nightline, Fox News, the CBS Early Show and the Discovery Health Channel.

GINA DAVIES

Gina Davies is a Specialist Speech and Language Therapist. She has turned her passion for communication development into practical and joyful intervention strategies for parents and professionals dealing with autism. She has worked with hundreds of children with autism in schools, nurseries and residential settings, and directly with parents, carers and families.

As well as being an accomplished conference speaker and highly acclaimed practitioner in autism, Gina has established parent groups, social skills groups and language and communication services. She has set up and run programmes in specialist and mainstream schools, working closely within the educational framework.

MICHELLE GARCIA WINNER

Michelle Garcia Winner, MA, CCC is a Speech Language Pathologist who specialises in the treatment of individuals with social learning challenges. She is the founder of Social Thinking® with the mission to help people develop their social competencies to better connect with others and live happier, more meaningful lives.

Michelle helps educators, mental health professionals and parents appreciate how social thinking and related social skills are integral to a person's success – be it in relationships, at school, in the community or in their career, and teaches strategies and treatment frameworks to strengthen social competencies. Michelle has a private practice, The Center for Social Thinking in Santa Clara, California, where she works with clients who continue to teach and inspire her.

She travels around the world teaching courses on the Social Thinking Methodology, consulting with families and schools, assisting in the development of educational programmes, and training a range of professionals, parents, business people and politicians. She is a prolific writer and has written and/or co-authored numerous books and articles about the Social Thinking Methodology. Michelle receives accolades for her energetic and educational conference presentations, as well as her practical, down-to-earth approach to teaching social thinking and related social skills.

The strength of Michelle's work is her ability to break down abstract social concepts and teach them in practical, concrete ways to help people develop their social competence.

AN INTERVIEW WITH DR TEMPLE GRANDIN

What is the most important consideration for parents and professionals working and living with children and young people with autism?

Early educational treatment for very young children.

How can communities better support children and young people with autism, their parents and families?

Fully verbal teenagers should get and keep jobs BEFORE they graduate from high school.

How can parents and professionals empower children and young people with autism to maximise their potential?

Develop the child's strengths into employable skills.

How can policy makers build the capacity of parents and professionals to support children and young people with autism?

Parents need respite time when they have a child with severe autism.
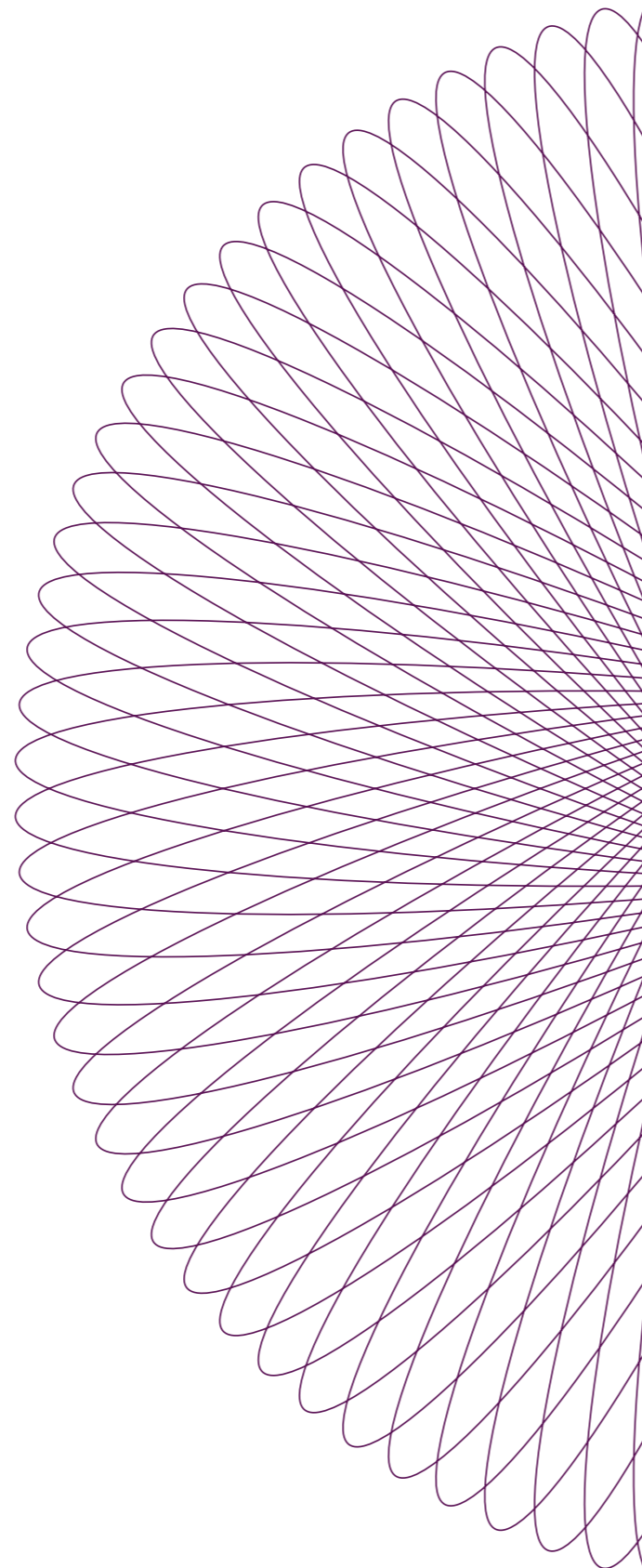
AN INTERVIEW WITH DR JED BAKER

How do social skills training and anxiety management strategies complement each other?

One of the key components of effective social skills teaching is establishing motivation to learn and use skills. High levels of social anxiety can interfere with the desire to utilise skills. Avoidance of social situations can lead to temporary relief despite longer term problems. Thus, it is critical to work together with clients to gradually face fears that may hold them back from achieving life goals.

How can parents and teachers use social skills and anxiety management strategies to build capacity for children and young people?

I think one of the most crucial things parents and educators can do is to provide hope that goals can be achieved. Without hope, students will not put effort into leaning skills and facing fears. Once there is motivation to learn, relevant social skills can be targeted, taught and practiced; and fears can be gradually overcome. The great wisdom of parents and teachers is to show children what can be accomplished with the two main ingredients of success: effort and willingness to get help!

How can parents and professionals empower children and young people with autism to maximise their potential?

The model I use for success is threefold: (1) build hope, (2) provide the right social and behavioural supports, and (3) provide opportunities for work, play and residential life. The first two I find easier to achieve as a clinician. Early on with a client, I spend lots of time trying to create a vision of hope and build motivation to learn and seek help as necessary. From there, we can target social skills and provide the right behavioural supports at home and in school to reduce frustration and anxiety. The third issue focused on creating opportunities for individuals beyond school years often depends on policy makers to create funding sources and programmes available to young adults for job training, employment opportunities, residential programmes, and social-recreational activities.

How can policy makers build the capacity of parents and professionals to support children and young people with autism?

Policy makers can help provide funding sources for critical training of caregivers (parents and educators) to help them teach social skills and provide behavioural supports at home and in school. They can help establish critical laws that protect our vulnerable population and ensure they have access to an appropriate education and protection from harassment and bullying. As children age out of school, policy makers can help steer funding and programmes to create opportunities for young adults to receive job training, employment opportunities, social-recreational activities and safe and comfortable residential options.

AN INTERVIEW WITH GINA DAVIES

How does the Attention Autism (AA) programme contribute towards building the capacity of schools to support the attention and communication of pupils with autism?

The Attention Autism Programme has developed through hands-on direct use of ideas and strategies that have evolved over 20 years into the current format. The intention was to find a way of developing an effective intervention that provided a vehicle for applying ideas and research findings current in the field of autism. The Attention Autism Programme is designed to be practical, affordable and do-able. It can be used by a wide range of people in home, clinic and education settings. The programme provides a clear and simple set of strategies delivered through a programme with four stages. The programme allows the adults delivering the programme to develop confidence and expertise in using, "good practice" such as an autism friendly set up to sessions, visually supported communication, structure and modified language whilst the student accesses meaningful intervention. The adults learn through hands-on delivery of the programme how to weave curriculum and learning objectives through activities that engage the pupils in an irresistible invitation to learn. The programme requires few specialist resources and can be set up after two days of training or following a series of coaching sessions direct with the students. In this way, the programme can become, for example, something school based staff can run on an ongoing basis within their setting.

How does the (AA) programme contribute towards building the capacity of parents to support their child's attention and communication goals?

The principles that underpin the Attention Autism Programme are shared with parents and the same core strategies and principles of intervention can be applied by the parents at home even if they do not run the programme themselves.

How can parents and professionals empower children and young people with autism to maximise their potential?

Each child with autism has potential but the long-term success of intervention depends on the successful application of autism specific strategies for learning and the fluency with which these are used across each day. Initially, it is the adults living and working with the children and young people who are responsible for identifying, applying, personalising and adapting the strategies to make them meaningful and practical for that individual. As the young person matures so should the strategies and the focus involves supporting the young person to take responsibility for their maintenance as they live their lives. We should be seeking to develop strategies that work lifelong and are both welcomed and individualised for and by each person on the spectrum.

How can policy makers build the capacity of parents and professionals to support children and young people with autism?

It is important to recognise that autism is a lifelong condition and requires specific intervention. Appropriate scoping of the problem as it presents in pre-schools, schools and in adult life is needed to guide budget allocation. This has been carried out in Scotland with effective information gathered to drive long-term plans and funding. Policy making can set the expectations and intent in broad terms.

AN INTERVIEW WITH MICHELLE GARCIA WINNER

How can social support systems be used for building capacity in children and young people with autism?

Persons with autism are not a homogeneous group. And having a diagnostic label is not a definitive indicator of a treatment path. The characteristics used to define autism or Asperger's syndrome exist on a continuum from those with limited verbal, IQ, and theory of mind capacities to individuals with brilliant academic abilities and strong vocabulary yet who still struggle with understanding the nuances of social interaction, and forming and maintaining peer relationships. Given this wide array of individuals and needs, an important first step in any social support system is to have the means to accurately assess the strengths and weaknesses of an individual, to include their social learning, sensory and communication abilities.

From there, we need to be aware of the student's developmental age versus developmental abilities, their temperament, and most importantly, the individual's own social goals (if they have the capacity to share that information). Armed with this knowledge we can move to treatment planning and create programmes that accommodate the individual learner's needs and are sensitive to the spectrum nature of autism. Accordingly, parents and professionals benefit from understanding the difference between teaching social competencies and "social skills" and being knowledgeable about the different types of social learning supports and curricula to meet differing social learning needs of an individual. These supports include but are not limited to developing the ability to communicate with another person (verbally and nonverbally), determining the context to understand different ideas and perspectives in that context, self-regulating behaviour and emotions, managing their sensory regulation system, etc.

Ultimately, individual social growth will require the skilled guidance of professionals, para-professionals and parents who can teach students to engage in the social learning process by providing frameworks and strategies to learn socially-based problem solving and related social responses. When taken together these steps will help individuals of all ages build longer term social competencies to achieve their personal goals.

How can Social Thinking Methodology build capacities within classroom learning environments for children and young people with autism?

I began developing Social Thinking's treatment concepts and methodology in a public school setting, while working with teenagers, who all had solid to strong spontaneous language skills and academic learning abilities. Many had the book smarts to succeed and all my students were overwhelmed by the implicit social expectations that surrounded them. I realised I needed to set aside assumptions about what it means to teach and learn within a classroom environment and begin by teaching them explicitly about different aspects of social engagement and social learning to help them improve in their social capacities. This was the beginning of teaching students about their own and others' "social thinking" – a term I coined to help my students understand that a thinking process is involved in all our daily interactions and related social academic responses. Social thinking is a mental process where we each are expected to think socially about our own thoughts and those of others around us, to consider that people have different thoughts, ideas, perspectives, intentions

and motivations, and then use all this good information to both figure out how to adapt our behaviour (words, actions, nonverbal behaviour, etc.) to meet our own social goals.

I also noticed that I could predict my students' level of engagement in socially based academic tasks, such as reading comprehension of literature and written expression, based on their social thinking and related social skills. This led me to take the teachings about each of our social thinking one step deeper. When we are in an educational learning environment (e.g. a classroom) we have to not only think socially about the people in the class but also use our social thinking within academics. For instance, it's our social thinking that helps us go beyond reading the "facts" about characters in a novel to appreciate why they act the way they do or how their personalities and intentions affect the outcome of a story, and it's this same social thinking that helps our students gain a wider understanding of people in history, interpret the scenario unfolding in a complex math problem, or be able to compare or contrast elements within social studies to explore social thinking within a group or society. All of this socially based information is also used when engaging in the process of explaining our self in writing to an audience (e.g. written expression).

As I studied the different elements that work synergistically and dynamically during the social learning process, I found that it would be helpful for my students and their parents and professionals to have a common vocabulary that would help us all provide explicit understanding of social expectations. I recognised that most cultures use language to direct social behaviour, but that our social instructions require active social interpretation on the part of our students.

For example, we commonly tell our students to "be cooperative", "be friendly", "negotiate", "pay attention"… yet stop and consider that we don't specifically define for our students what "friendly" means, or what "cooperative" looks like from one situation to another. Since most of my students demonstrated weak abilities to infer meaning, I began to create social language that would explicitly teach our collective social expectations within specific situations. Rather than teach students to use eye-contact, be nice and behave, within the Social Thinking Methodology we teach students how to "think with their eyes", "keep their body in the group", "keep their brain in the group", use "smart guesses" or be "social detectives" to look for clues and cues in the situation they are in. Many other concepts also make up what we call Social Thinking Vocabulary. The Vocabulary and the specific teachings and frameworks that are part of the larger Social Thinking Methodology are all designed to help students understand the many ways in which our social interpretations lead us to better social-academic interpretations as well as help us determine related social responses that allow us to meet our social goals (e.g. be friendly, work well in a group, play well with other kids on the playground, etc). Our concepts and materials are now being adopted for use in many classrooms around the world with students with ASD, ADHD and other related diagnoses. Parents, teachers, counsellors, social workers, SLPs and other professionals are finding the concepts and strategies powerful tools for use with all mainstreamed students. Social Thinking's teachings help guide all individuals' social emotional and social academic learning. We use this same core teaching information for our many adult clients who continue to benefit from social learning as they age and their life experiences broaden.

How can parents and professionals empower children and young people with autism to maximise their potential?

In a nutshell, the best way to motivate and empower our students is to focus on helping them learn about and meet their own personal social goals. And, I believe we need to be honest in helping individuals understand that people in society hold unspoken social expectations for how people around them are to manage themselves within specific contexts. To help our children and young people interact with others in their world and improve in their social understanding and related social skills, they need to become more aware of the "hidden" social expectations that surround them. These are often the same social expectations persons with Autism Spectrum Disorders have for those who interact and share space with them.

How can policy makers build the capacity of parents and professionals to support children and young people with autism?

We need to first establish a common definition for what it means to teach "social skills" or more broadly define it as teaching "social competencies". Most treatment providers teach "social skills" and policy makers talk about teaching "social skills" or "soft skills" but don't know how to define what these are or if they are attached to deeper learning. Then policy makers need to learn about the different typologies of autism. It is difficult to establish treatment needs if we don't share common definitions and goals for what needs to be addressed based on the individual's presenting social strengths and weaknesses. Next, given that neither the parents nor professionals are explicitly taught how to teach individuals with autism or other social emotional learning challenges to improve their social competencies, it would make

sense for policy makers to create new learning pathways for interventionists to learn a variety of ways to teach social learning and related social skills based on the specific typologies of autism. Then, and only then, will we have enough trained professionals to help the aging population of people with social learning challenges achieve their personal fullest potential.
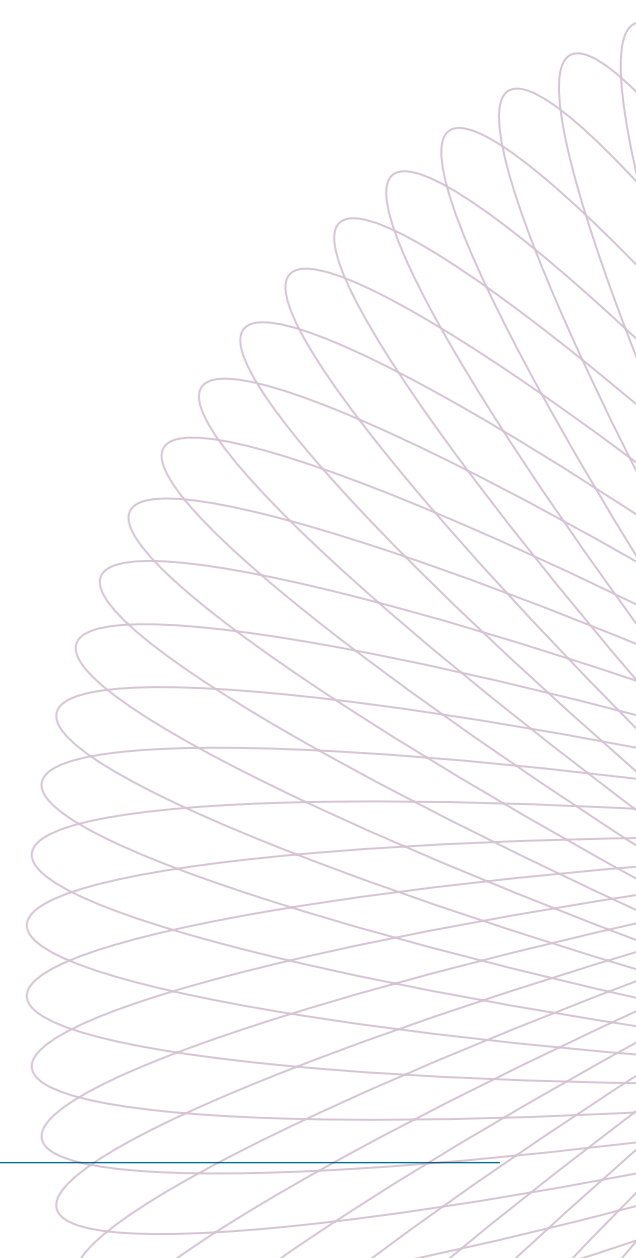
INTEGRATING FAMILY CAPACITY-BUILDING AND CHILD OUTCOMES TO SUPPORT SOCIAL COMMUNICATION DEVELOPMENT IN YOUNG CHILDREN WITH AUTISM SPECTRUM DISORDER

RESEARCH AIM

The article aims to review the current research and practice of speech-language pathologists working with children with autism to provide a deeper understanding of (a) the relationship between parent-implemented social communication interventions for young children with autism and family centred practice, (b) the role of family centred practice in building capacity with families within their natural environments, and (c) adult learning principles that build the family's capacity to meet their child's social communication needs.

FINDINGS

(a) The relationship between parent-implemented social communication interventions for young children with autism and family centred practice

Research studies have consistently shown parent-implemented interventions to promote development and gains in children's social communication skills across areas of functional communication, joint attention and comprehensive treatment models.

The literature encompasses a variety of approaches used by parents such as developmental, behavioural intervention approaches and blended approaches. Parents' role varied from being trained to implement an intervention to being a team member within family centred interventions. The context for intervention within the research studies was primarily play and the training settings were most frequently clinical.

Clinical based studies have demonstrated improvement in children's joint attention however, generalisation to natural contexts has not been shown. Other studies have reviewed broader social communication intervention to increase participation and engagement in natural routines in home contexts. Results showed significant improvements in both initiating and responding to joint attention.

(b) The role of family centred practice in building capacity with families within their natural environments

Several studies using developmental features blended with contemporary behavioural strategies, showed promising results for maintenance and generalisation of the parents' strategy in the setting and context in which intervention occurred. The findings of the studies reviewed within this article offer important preliminary data for developmental interventions:

- Provides evidence that naturalistic teaching strategies lead to improvements in core social communication difficulties in children with autism.

- Evidence that parents can learn multiple strategies aimed at their child's attentional focus and generalise the use of these strategies across routines in natural environments.

- Evidence of the positive impact of parent-implemented strategies on communication outcomes for children with autism.

(c) Adult learning principles that build the family's capacity to meet their child's social communication needs

The aim of family capacity-building is to increase parents' competency and feelings of confidence in implementing strategies to improve their children's development. Several adult learning principles which build family capacity have been identified such as using the families' natural environments as the intervention context, addressing information needs of caregivers and engaging parents to be active participants within the intervention process.

Research findings have shown that generalisation and maintenance of parent-implemented intervention occurs at the highest rates when the intervention contexts are the preferred natural activities and routines of the child and family. The context component of natural environments includes everyday experiences with familiar people in everyday routines and activities.

It is typical for parents/carers to have different reactions and emotions around the diagnosis of their child and their expectations of interventions. Research has shown that the relationship between professionals and parents is critical, it is the foundation for providing information which will meet the learning styles and emotional needs of the parents. This includes listening to parents, discussing options honestly and respectfully, checking on understanding and acknowledging their emotions.

Engaging caregivers in the intervention process should begin before the first intervention session and is a continuous process. Promoting caregiver participation is an integral component of family-centred services and should include seeking out and respecting parental views; ensuring equal participation of caregivers in the decision-making process; recognising their views even if these differ to the professional's opinions and affirming the role of culture, values and family beliefs in their community.

IMPLICATIONS FOR PRACTICE
(by the authors)

- The studies reviewed present a collective view that parent-implemented interventions are feasible. Results show positive changes and improvements in core social communication difficulties of children with autism having received parent-implemented intervention in all the studies presented.

- The key principles of family-centred intervention act as a guide for building capacity of parents and families to support social communication development. Crucial elements include that intervention is delivered within natural environments for the child, information needs of the family are addressed and parents are viewed as active participants in the intervention process.

- Further research is required on methods of coaching caregivers within these collaborative approaches.

Full Reference

Woods, J. J. and Brown, J. A. (2011). Integrating Family Capacity-Building and Child Outcomes to Support Social Communication Development in Young Children with Autism Spectrum Disorder. *Topics in Language Disorders,* 31(3), p. 235-246.

TRAINING TEACHERS IN EVIDENCE-BASED PRACTICE FOR INDIVIDUALS WITH AUTISM SPECTRUM DISORDER: A REVIEW OF THE LITERATURE

BACKGROUND

Due to the increase in prevalence rates of children with autism in the classroom and associated legislation, there is a greater need for teachers to adopt evidence-based practices (EBPs) within their teaching skills and classroom management styles to provide for the specific needs of children with autism.

RESEARCH AIMS

This research aims to review the current literature on the training being provided for teachers to answer the following questions:

- Does this available training include EBPs?
- Are there suitable, effective and readily obtainable resources available to teachers to embed their learning?
- Can the teachers easily incorporate the learned strategies?
- Does the training meet the needs of the teachers?
- Does the training meet the needs of the students with autism?

REVIEW METHODS

The researchers conducted an electronic search using PsycINFO and ERIC online databases using a variety of terms associated with autism, ASD, Asperger's syndrome, developmental disorder, to name a few and other terms relating to Teacher Training, Teacher, Practitioner, Educator, Training, Staff Development and Professional Development. Furthermore, a search was conducted in the Journals, "Teacher Education" and "Special Education". From this, 23 articles were selected for inclusion in this review.

ARTICLES REVIEWED

From the 23 articles, gender, cognitive ability and diagnosis of the 586 identified children and 335 adult participants were identified. A total of 93% of participants were classified as female. Amongst participants, 322 were classified as teachers, with 91% identifying themselves as special education teachers, the remaining 13 participants were categorised as students or assistant teachers.

Within 13 studies, 78% of teacher participants had specific academic qualifications for working with children with special educational needs. Of the 14 studies that examined teacher qualifications, 43% held master's degrees in special education, 14% held master's degrees in other fields, and seven percent were working towards a master's degree in special education. Eighty-three percent of the studies were categorised by the strategy they aimed to teach.

Only five out of a possible identified 16 EBPs were evaluated by the 23 articles.

1. Behavioural Intervention Strategies.
2. Naturalistic Interventions.
3. Discrete Trial Training (DTT).
4. Positive Behavioural Support Strategies.
5. Pivotal Response Training.

Thus, as stated by the authors, the five EBPs evaluated are not representative of the number and variety of strategies available to teachers. This limits the generalisability of the study. There are other options found to be empirically supported for working with children and students with autism, for example, video modelling, visual strategies and work systems, open to teachers but not evaluated through these articles.

RESEARCH FINDINGS

There is still much work to be completed around professional development for teachers of children and students with autism. As the number of children and students with autism increases, the need to continue to evaluate trainings offered to ensure that they meet high-quality standards was emphasised. There are various forms and formats of training options available to teachers from self-instruction through hourly information sessions to intense five-day practical and examination based formal qualifications. This study reported that merely attending or participating in isolation, such training does not ensure that teachers have the necessary skill set to deliver individually tailored programmes.

It was felt that if teachers had the chance to be paired with someone in a similar position as themselves, they could bounce ideas, interventions, strategies and modifications off one another allowing for peer support when developing individual programmes. Training that includes not just support but mentoring with effective constructive feedback is more likely to lead to confidence in adopting EBPs.

As autism and the child with autism can be complex, knowing about autism and having training in autism was not enough to equip the busy teacher. It was found that teachers needed to extend their skills into the areas of modifying or managing challenging behaviour, working with those who present as non-or pre-verbal, or who may also have a learning difficulty, mild, moderate, severe or profound, as each will impact on the provision for the child with autism and the strategies and EBPs used.

IMPLICATIONS FOR PRACTICE
(by the authors)

Further research into the provision of training both pre-service and continuing professional development is needed to support teachers of children with autism. Training must:

- Consider the holistic nature of teaching as well as the holistic development of children.
- Not be isolated to understanding autism, but widened to understand the child with autism and the complexities that he/she faces.
- Understand the nature of challenging behaviours of children with autism with a focus on evaluating a functional analysis.
- Support the teacher as he/she derives the best goals for each individual child and using that information to help the teacher map and evaluate development while examining future student outcomes.
- Take the form of a variety of media including role play, video modelling and peer feedback.
- Provide support for colleagues facing many similar situations.
- Use technology which may be supportive of teachers who are geographically isolated from support mechanisms e.g. teleconferencing and online learning.

Full Reference

Alexander, L. J., Ayres, K. M. and Smith, K. A. (2015). Training Teachers in Evidence-Based Practice for Individuals with Autism Spectrum Disorder: A Review of the Literature. *Teacher Education and Special Education,* 38(1), p. 13–27.

SUPPORT, INCLUSION AND SPECIAL EDUCATION TEACHERS' ATTITUDES TOWARD THE EDUCATION OF STUDENTS WITH AUTISM SPECTRUM DISORDERS

BACKGROUND

Teaching pupils with autism can be complex due to the severity and pervasiveness of associated difficulties. Positive teacher attitudes are an important predictor of successful educational outcomes for pupils with autism. Research has shown that teachers' attitudes are influenced by a range of variables including teacher experience, training received and perceived availability of educational resources and support. Teachers involved in the education of pupils with autism are usually favourably engaged and those who work in special education schools with greater provision of resources and staff have more positive attitudes. Mainstream schools may not have sufficient resources to meet the educational needs of pupils with autism and the lack of these resources negatively affects teacher attitudes.

RESEARCH AIMS

The aim of this study was to assess special education teachers' attitudes to teaching pupils who had autism and their current support needs and investigating the factors associated with developing positive attitudes towards the pupils and their education, specifically the educational placement and the provision of support available.

REVIEW METHODS

Sixty-nine special education teachers (19% male, 81% female) participated in an interview and completed two Likert Scale questionnaires – the "Teacher Attitude" questionnaire and a "Needs" questionnaire. The Teacher Attitude questionnaire focused on three things:

1. The evaluation and perception of the pupils' parents and reflected teacher perceptions of parents' relationships both with each other and with the teacher.

2. The expectations of the child's chances of making significant improvements.

3. The emotional response to working with children with autism.

The Needs questionnaire focused on asking teachers about their perceived needs in relation to the specific education of the current pupils with autism in their class.

RESEARCH FINDINGS

Teacher Attitudes

Analysis showed that positive teacher attitudes can be reliably distinguished by number of years' experience a teacher has (1/2/3+ years), membership of an autism network (yes/no) and type of school placement (special/mainstream). However, membership of a support network was the only reliable predictor of positive teacher attitudes.

Teacher Needs

Analysis showed that the differences in terms of teacher needs was statistically significant depending on the educational setting (special/mainstream) and in explaining teacher needs and highlighting the teachers' perceived need for social support. Analysis further showed that type of school (special/mainstream) reliably predicts a teacher's need for information.

IMPLICATIONS FOR PRACTICE
(by the authors)

- Teaching children with autism requires a greater degree of specialisation so additional training has to be made available to teachers.

- Mainstream schools are a demanding environment that require constant training and update on the part of the teacher in comparison to special educational contexts.

- Inclusion of pupils with autism in mainstream settings is a considerable challenge for those involved and requires specific support.

- There is a greater need for information on how to teach pupils with autism in mainstream settings.

- Teachers often report that the greatest need is concentrated on information and availability of social support.

Full Reference
Rodriguez, I. R., Saldana, D. and Moreno, F. J. (2012). Support, Inclusion and Special Education Teachers' Attitudes toward the Education of Students with Autism Spectrum Disorders. *Autism Research and Treatment,* p. 1-8.
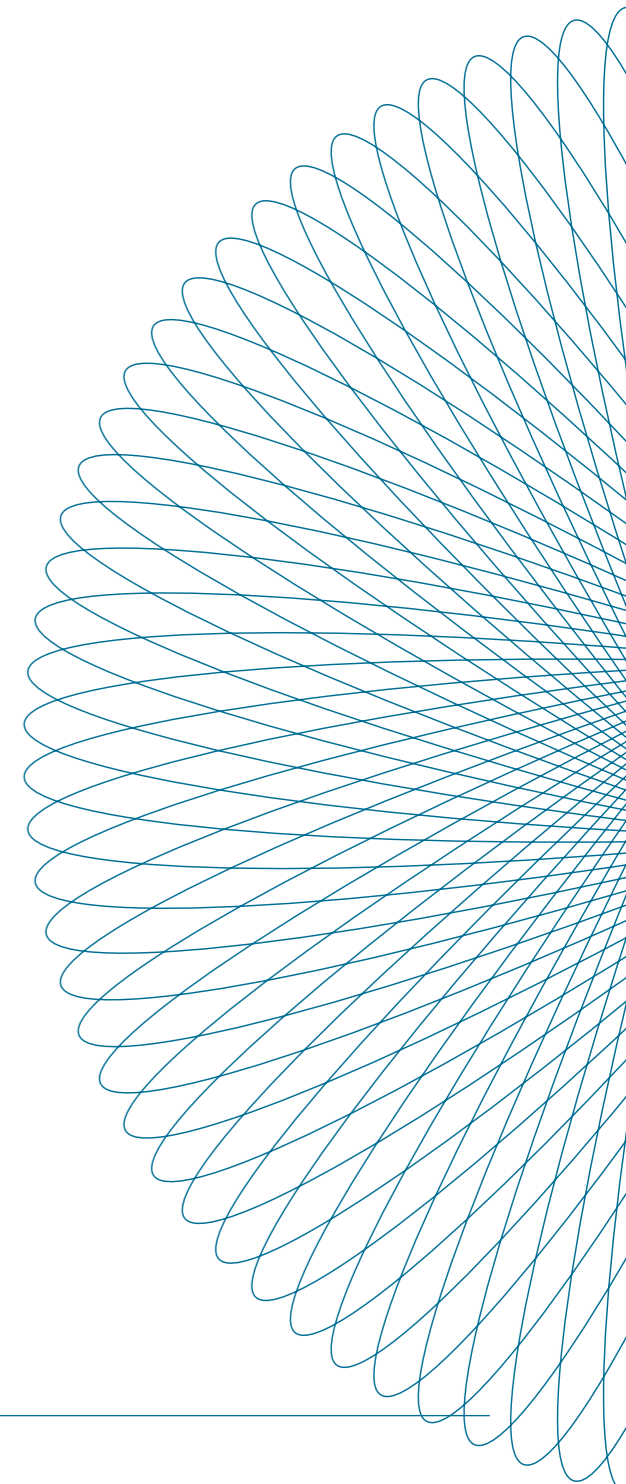
SPECIAL EDUCATION TEACHERS SERVING STUDENTS WITH AUTISM: A DESCRIPTIVE STUDY OF THE CHARACTERISTICS AND SELF-REPORTED KNOWLEDGE AND PRACTICES EMPLOYED

RESEARCH AIMS

With the growing number of children diagnosed with autism and being part of the education system, it was imperative to assess if teachers felt confident in meeting the children's diverse needs. With a growing number of interventions and strategies available influencing the teacher's classroom management and the methods used to deliver the curriculum, this study aimed to:

1. Determine the teacher, environmental, and student related characteristics of special education teachers who serve students with autism.
2. Identify the self-reported knowledge of effective teaching practices for students with autism.
3. Identify the self-reported implementation of effective teaching practices for students with autism.

RESEARCH CONTEXT

The authors designed a "Needs Assessment of Special Educators who serve students with autism" based on the "Virginia Skills Competencies for Professionals and Paraprofessionals Supporting Individuals with Autism Across the Lifespan".

The Virginia Skill Competencies recognises that if teachers are to provide effectively and competently for children with autism in the classroom, they need to have experience or knowledge in the following six areas, each seen as equally important and then further subdivided into knowledge based and specialised skills:

1. **General autism:** What is autism?
2. **Individualisation and support strategies:** Do teachers have the appropriate skills to design specific programmes?
3. **Communication:** How can the class teacher support the development of communication and language?

4. **Social skills:** What supports are needed to design and deliver specific social skills training?
5. **Behaviour:** Analysing the messages communicated by behaviours and developing positive plans to teach new skills and reduce problem behaviour.
6. **Sensory motor development:** What sensory motor skills activities are needed to support the child with autism?

RESEARCH METHODS

The authors identified 15 education regions and 2,334 special education teachers, whom they wished to target for the purposes of this study. A link to a web based survey was emailed to the teachers, asking for their participation and giving them a deadline of three weeks to complete. From this format, the researchers received 498 completed surveys. This was considered reflective of the number of teachers, 86.7% of whom hold licences to teach children with special educational needs, who work specifically with students with autism rather than those who work with children who experienced other special educational needs.

RESEARCH FINDINGS

It was crucial to see if the teachers delivering the curriculum to children with autism felt that they have the knowledge and practice to deliver appropriately and successfully. The teachers in the study came from a variety of backgrounds, settings and experiences, offering a broad demographic for the study. Years of teaching service ranged from one to 36 years and although the majority of teachers taught in suburban areas, a third reported that their school was in a rural area.

Most of the children taught by the group of respondents had autism and some were taught in an autism specific classroom but most were educated in a general special educational needs room.

After analysis, the teachers reported the greatest knowledge regarding General Autism Awareness. They did, however, also report a paucity of knowledge in the field of Sensory Motor Development followed by Social Skills, which was reflected in the practices they used or felt comfortable using in the classroom. Teachers felt empowered to deliver Individualised Supports and Strategies but least comfortable implementing Social Skills sessions and those designed to support Sensory Motor Development.

Although many teachers felt that they had a sound theoretical understanding of autism and some of the associated difficulties experienced by the children, they did not have the expertise and confidence to meet all the children's needs. The teachers were employing strategies from their general teacher training and experience but were not confident to extend the teaching and learning experience to incorporate specific strategies designed specifically for children with autism.

IMPLICATIONS FOR PRACTICE
(by the authors)

- Some children with autism are being taught by teachers who have little experience in either the field of education or special educational needs and may not have the training to meet such specific needs. Support must be offered to these teachers to ensure they have an array of strategies that they can readily call upon in a busy and diverse classroom.
- Teachers need autism specific environments if they are to provide the best education for the children. It is extremely difficult to meet the needs of all the children if the areas are not structured and consideration is not given to sensory differences.
- Teachers with the interest in and motivation for teaching children with autism must be

supported in acquiring the necessary skill set that addresses all aspects of autism. The children in their classroom have a diverse set of needs and therefore, teachers must be afforded education, training, competency and experience in a range of interventions and strategies as well as time to differentiate the curriculum considering the individuality of each child.
- The needs of the children include addressing academic, social, communication, behaviour, sensory and motor needs and therefore, teachers must be empowered by being allowed time to carry out research and evaluate best practice, which will inform and modify their personal classroom practice.
- With the increase in prevalence, it may be worthy to note that autism should be included into teacher training courses. Children with autism can appear in any classroom, mainstream, special education, early years, primary or post primary. As the children grow and develop, their needs change and teachers must be prepared, at the earliest possible time, with the skills of inclusion and differentiation.
- In-service training should be reflective of the school population and therefore, all staff and teachers need to be prepared for their interactions with and the inclusion of children with autism, through intensive and ongoing workshops, mentoring, supervision and constructive feedback, with ideas that can be easily incorporated into their current practice.

Full Reference
Hendricks, D. (2011). Special Education Teachers Serving Students with Autism: A Descriptive Study of the Characteristics and Self-Reported Knowledge and Practices Employed. *Journal of Vocational Rehabilitation,* 35, p. 37–50.

BUILDING CAPACITY TO DELIVER SEX EDUCATION TO INDIVIDUALS WITH AUTISM

BACKGROUND

The need for providing support to individuals with autism in many areas such as social skills, daily living skills and communication is widely recognised however, the need for sexuality support remains controversial. Early studies reported that individuals with autism had no interest in intimate relationships with others however, recent studies counter this and report that individuals with autism do want intimate relationships. It is also believed that sexuality education may reduce inappropriate sexual behaviour and be a protective factor against sexual abuse. Among the general population, sexuality is typically learned through three channels: parents, friends and teachers. Because individuals with autism struggle with learning informally and understanding social relationships and social context, the typical channels may not be available and this can result in misinformation or misunderstanding. This suggests an essential need for formal sexuality education support for individuals with autism. Despite this, previous studies show that the need often goes unmet.

RESEARCH AIMS

The aim of this study was to examine a process to build capacity for individuals with autism to receive sexuality education by providing professional development and resources to practitioners through a one day workshop and providing ongoing education online. The authors examined the reasons participants attended the workshop, their surrounding issues of sexuality education for individuals with autism, the extent to which the training changed instructional behaviour and perceptions of readiness, and the effectiveness of follow-up education based on online delivery modality e.g. Facebook update or email message.

RESEARCH METHODS

"The Birds and The Bees" programme was chosen to address teaching sexuality. The workshop was designed to provide content and models for teaching as well as linking educators to additional resources, facilitate exploration of educator's own values and experiences and to provide participants with time to plan how they would use these skills in the future.

Due to a lack of reliable and valid sexuality measures, a tool was developed to specifically target the goals of "The Birds and The Bees". The measurement tool underwent a cognitive interview process to reduce social cognitive problems with survey design. It was also reviewed by experts teaching sexuality to individuals with autism who found the tool to be valid and comprehensive.

When participants registered for the workshop, they were invited to participate in the study. Respondents were required to use email, Facebook and to work with individuals with autism. Fifty-nine respondents were sent a pre-test survey and were randomly assigned to either email or Facebook ongoing support: 43 individuals completed the second survey resulting in the email support group consisting of 21 and 23 in the Facebook support group.

Data was collected on areas such as: participant's background, instructional climate, programme outcomes in terms of developing expertise and readiness to teach and satisfaction with the online component of the training.

Data was collected from participants via an online survey before they took part in the workshop and one month after the workshop. During the interim, participants were sent updates that included additional information about teaching sexuality for individuals with autism via a link to a website: asdsexed.org. Due to the differences in best practices for email and Facebook delivery, content was the same but timing was slightly different.

ARTICLES REVIEWED

"The Birds and The Bees" programme was based on a transformative learning process. The authors cite previous studies that found a transformative learning process to be critical for the delivery of sexuality education to individuals with autism.

Several studies have examined teacher training and found it to be inadequate and that teachers' beliefs on what should be taught was a predictor to what was taught. Also, previous research only looked at special educator training, but other practitioners such as social workers, adult service providers, therapists and case managers also provide sexuality education however, little is known about their professional development experiences on this topic.

RESEARCH FINDINGS

The authors found that individuals interested in learning how to teach sexuality to individuals with autism came from a variety of backgrounds. They also found that there were many reasons why participants attended the training e.g. professional development or extension of knowledge. The authors felt this indicated an awareness that when supporting an individual with autism it is important to understand them as a person including a sexual person.

Despite the climate to teach sexuality to individuals with autism, only 12 of the participants were teaching the subject. One month post-test, participants showed greater efforts in terms of knowledge seeking and collaborating as well feeling ready to teach however, they did not report that they were actually providing more human sexuality education.

Most of the challenges identified were in relation to the individual with autism rather than structural, personal or institutional challenges. The authors recognise that some of the challenges cited pose genuine difficulty but felt the perception of the challenge may be creating barriers rather than the challenge itself. The authors suggest further research to explore the challenges and how educators could overcome them.

Providing sexuality education within schools is important. Until the structural barriers limiting classroom based sexuality education is addressed, other avenues, such as community based service providers, may be able to fill the deficit.

Participants reported they were ready to teach human sexuality at the end of the study. The authors felt this was due to increased knowledge on sexuality topics due to collaboration.

There were no significant differences in terms of the interactions with treatment conditions, however, participants receiving email updates were more likely to engage with additional content. This suggests email may be a more effective avenue for delivering educational content however, in this study, the modality did not affect any other outcomes.

Some participants reported they could not see how the content could be used with individuals with intellectual impairments even though the content was coming directly from instruction.

The authors acknowledged that some of the impairments cited posed genuine difficulties, but that the perception of the impairment may create barriers rather than the impairment itself.

IMPLICATIONS FOR PRACTICE
(by the authors)

- Despite participants attending a workshop and availing of additional support resources, this did not increase the delivery of the sexuality education to individuals with autism.

- When educators are faced with challenges, they should explore the challenge and ensure it is a real challenge and not the perception of the challenge that is creating the barrier.

- Providing sexuality education to individuals with autism is important however, if school educators cannot deliver it, community based service providers should be considered.

Full Reference
Curtiss, S. L. and Ebata, A. T. (2016). Building Capacity to Deliver Sex Education to Individuals with Autism. *Sexuality and Disability,* 34(1), p. 27-47.

BUILDING CAPACITY FOR RIGOROUS CONTROLLED TRIALS IN AUTISM: THE IMPORTANCE OF MEASURING TREATMENT ADHERENCE

BACKGROUND

The demand for diagnostic services and interventions has increased in line with increased and earlier recognition of autism. Internationally, current healthcare systems have a very uneven profile in terms of their expertise and capacity to support families of children and young people with autism. This often leads to marginalisation from society in areas where services are limited.

Across Europe, there are many challenges, which face the potential for joint research into the evaluation of early intervention. These include the choice of intervention model, selecting important outcomes, translation of tools for measurement, cultural differences in evaluation of appropriate patterns of parent-child interaction and how to reliably achieve joint training in measurements within varied languages.

A significant number of scientific methodologies are now being utilised to answer important questions about autism. Research groups across Europe, brought together by a European Co-operation in Science and Technology (COST) Action "Enhancing the Scientific Study of Early Autism" (ESSEA), are now vigorously engaging in networking with each other as a means of sharing information and ideas regarding research into preschool children with autism. The aim of this is to improve the collaboration between the basic strands of research about preschool children with autism to enable development in clinical practice and policy which are informed by a rigorous evidence base.

RESEARCH AIMS

This papers aims to describe preliminary work to develop capacity for future multi-site randomised controlled trials of early intervention, specifically focusing on the need to measure treatment adherence when therapy is delivered by parents. Specifically, the paper focuses on one of the Action's work group topics, testing early intervention approaches in autism using rigorous controlled trials. The paper also centres on a review of the adherence measurement in parent-mediated intervention studies and considers the best practice in this aspect of trial management.

RESEARCH CONTEXT

The authors of this paper assessed reviews from published studies including those e.g. within a Cochrane Collaboration review which reviewed parent mediated early intervention trials published in 2002 whereby only two randomised controlled trials (RCTs) were reported compared to 17 studies which were reviewed in 2013. The authors further identified and reviewed meta-analysis studies and/or reviews that were concerned about early comprehension behaviourally based interventions that were published in peer reviewed journals between 2005 and 2012.

As part of this study, a mapping exercise was implemented to map all published studies conducted across Europe since 2002.

RESEARCH METHODS

In terms of early intervention studies and the quality of evidence, the authors highlighted that the number of well-designed evaluation studies currently published has increased. However, most reviews reported a mixed quality of evidence. In the case of RCTs and quasi-RCTs, common limitations included small sample sizes, a risk of bias from attrition and selective reporting a variation in outcome measures which made interpretation of results difficult.

In assessing the activities of the COST ESSEA work group on intervention, it was found that the difficulties of conducting rigorous controlled trials set the agenda for the early intervention work group. The main goal was therefore to facilitate multi-site trials as a means of increasing sample sizes and improve the quality of evidence of effective intervention which required in-depth groundwork. Obstacles such as national and regional differences in assessment tools, diagnostic practices, quality and quantity of treatment and services available for young children as well as language barriers were highlighted as having an impact on studies. The paper revealed that across Europe there is potential to have multi-site trials of early interventions in autism however, there are many methodological challenges to be resolved.

Many research groups are currently active in evaluating early intervention in autism. The main models which often involve parents tend to be early-intensive behavioural interventions and reciprocity-focused interventions. In an attempt towards enhancing the methods employed to scientifically measure the study of intervention, including how to measure regular services received and interaction between parent and child, a European Network is working towards addressing these areas. In reviewing the level of parent adherence, published evidence suggests that on average, parents of children with autism can be effectively taught to use a range of intervention strategies.

In fact, reviews of early intervention studies concluded that the time spent and quality of parent-mediated delivery of intervention strategies to their children was typically not reported. A review of studies indicated that there were limited methods for measuring and monitoring parent adherence of strategies taught by professional therapists.

IMPLICATIONS FOR PRACTICE
(by the authors)

- RCTs which include a modification in outcomes which impact the interpretation of findings has implications for policy and practice. For example, in the UK, this limited the conclusions of the UK National Institute for Health and Care Excellence published guidance in the management and care of children and young people with autism and hence impacted similar guidelines across Europe.

- An important challenge for early intervention research, as cited by the authors, is to commence the identification of parent or family characteristics that may link ability to implement the intervention so parents who may be likely to struggle may be provided with additional support.

- Future studies should also incorporate multiple measures of fidelity to identify which measures provide appropriate balance of participant burden against accuracy. To develop these measures parent-mediated intervention literature could draw on studies of therapist-led intervention for models. As the process of monitoring all the steps in fidelity adds additional complexity to the study of early autism intervention, larger sample numbers are imperative in order to be able to explain multiple interacting efforts. This requirement supports the work of the COST ESSEA network in building capacity for international multi-site trials in research and clinical sites across Europe.

Full Reference
McConachie, H., Fletcher-Watson, S. and Working Group 4, COST Action "Enhancing the Scientific Study of early Autism". (2014). Building Capacity for Rigorous Controlled Trials in Autism: The Importance of Measuring Treatment Adherence. *Child Care, Health and Development,* 41(2), p. 169-177.

BUILDING A RESEARCH-COMMUNITY COLLABORATIVE TO IMPROVE COMMUNITY CARE FOR INFANTS AND TODDLERS AT-RISK FOR AUTISM SPECTRUM DISORDERS

BACKGROUND

Community-based participatory research (CBPR) is a term which refers to a partnership between researchers and community-based organisations, such as health services. It aims to develop greater reciprocal work between researchers and practitioners. It assists in the establishment of evidence-based practices (EBPs) by supporting organisations to implement these practices and provide ongoing research into their effectiveness. It is therefore, a two-way process and ensures that the EBPs recommended by the researchers are the most appropriate for each community's specific needs. This paper examines one such CBPR called the BRIDGE Collaborative. It focused on the development of an evidence-based intervention model for very young children with early indicators of autism.

Early intervention is recognised as the most effective method of intervention for children presenting with early indicators of autism or who have already received a diagnosis of autism. Intervention between the ages of nine months and 36 months will have the greatest impact on social-emotional and communicative development as this is the period when skills expand most rapidly. It is also the stage at which intervention is most likely to change the brain circuitry and therefore lead to long-term improvements. This also has an impact on service provision as individuals who have received early intervention are less likely to need health services later in life.

Intervention which focuses on a combination of behaviour, social, communication and regulation factors will cause the greatest improvements in intelligence levels and academic grades for individuals with autism. Blended interventions based on the principles of behaviour analysis and parent-implemented interventions are particularly recommended for very young children at risk for autism.

RESEARCH AIMS

The authors list the following research aims:

1. To describe the BRIDGE Collaborative, which is an example of a partnership between researchers, practitioners, families and funding agency representatives and is based on the principles of CBPR. It is a Southern Californian project for infants and toddlers at risk for autism.

2. To assess the proximal outcomes of the BRIDGE Collaborative which are partnership synergy, intermediate goal attainment and tangible products.

3. To assess sustainability of the BRIDGE Collaborative.

REVIEW METHODS

A group of researchers, clinicians, family members and funding agency representatives initially met informally to discuss the intervention needs of young children with risk for autism and how services could be funded and improved. A CBPR group developed with 14 members and met monthly.

The group named itself SoCal BRIDGE Collaborative and agreed its mission statement was "To build a community dedicated to improving the earliest intervention for children with challenges in relating and communicating".

Leadership consisted of a researcher, a community provider and a parent. Subgroups were established for specific tasks, such as literature review, training and assessment. Evaluation of the process was carried out by a researcher and a community provider.

It was agreed that the BRIDGE Collaborative would target services for children aged 12-24 months presenting with early features of autism as defined in "First Signs" and "Zero to Three" (2005). The group decided to select an evidence-based intervention which would support the parent-child relationship.

RESEARCH FINDINGS

There were three constructs for outcome measures:

1. **Partnership synergy**
A partnership functioning survey was carried out with all 14 members of the BRIDGE Collaborative evaluating the six domains of general satisfaction, impact, trust, collaborative decision making, the research team, structure of meetings and communication. Responses were positive and ratings significantly improved over the four years of the project. BRIDGE was reported to have a high impact in the community.

Adherence to participatory research elements was also measured. Most group members felt that researchers had equal input to the decision-making processes and it was felt that decisions were truly collaborative. Seventy-five percent felt that they were partners in the development of evaluation methods while 25% felt that the researchers designed the methods and they were then implemented by community members.

Fifty percent of group members felt that measures primarily looked at research outcomes but included skill development in planning for evaluation. The other 50% confirmed that research findings informed intervention planning and that they had improved their research knowledge. The group reported that they felt the programmes would be sustained when research funding ended and some felt that new programmes would be initiated and funded.

2. **Intermediate goal attainment**
One of the intermediate goals was to use participatory research methods to select a suitable evidence-based intervention. BRIDGE members established that an intervention should be parent-implemented, evidence-based for children with autism, have a focus across developmental areas and broad applicability for a range of users. Interventions were systematically reviewed and three interventions were selected for further examination, based on best practice guidelines. The programmes selected were Enhanced Milieu Teaching, the PLAY project and Teaching Social Communication. Presentations were then given on each of these programmes and feedback was received from a group of parents and community providers. The Teaching Social Communication (TSC) programme was finally selected, following evaluation of the feedback and examination of the quality, availability, usability and suitability for the current community practice.

Another intermediate goal had been to carry out a pilot study of the selected intervention programme and this was also successfully completed. The BRIDGE Collaborative has trained 15 people in the programme and is providing intervention to 21 children and their families. Fidelity in training and implementing the intervention was reached, families reported satisfaction with the programme and early evaluation indicates improvements in the children's communication and engagement skills.

3. Creation of tangible products
   Several tangible products have been created, including publications, presentations, awards, grants, conferences and marketing tools.

In addition, participation at BRIDGE meetings has increased to 85% and all 14 members remain active participants.

IMPLICATIONS FOR PRACTICE
(by the authors)

- Research-community partnerships may be an effective way of selecting evidence-based intervention methods, implementing them and then providing an ongoing evaluation of the intervention.

- This was the first time that a CBPR had been used and evaluated in the field of early intervention for autism. The BRIDGE Collaborative model could be replicated in other services working with young children at risk for autism or already diagnosed with autism.

- The BRIDGE Collaborative provides a model for the systematic selection of evidence-based intervention which could be replicated elsewhere.

- Researchers, practitioners and parents should work in partnership to select appropriate intervention models. This will ensure that interventions are based on the best evidence available and that they also fit with the specific needs of each community.

- A partnership with researchers allows ongoing evaluation and adaptation of intervention programmes, which improves outcomes for children with autism and their families, and can also secure ongoing funding of projects.

- A CBPR approach may help to transfer evidence-based interventions into practice quickly.

- A CBPR approach involves all members of the community in decision-making processes in intervention.

- A CBPR approach provides clear outcome measures which can be used to demonstrate the effectiveness of a service and/or intervention approach.

Full Reference
Brookman-Frazee, L., Stahmer, A. C., Lewis, K., Feder, J. D. and Reed, S. (2012). Building a Research-Community Collaborative to Improve Community Care for Infants and Toddlers at-risk for Autism Spectrum Disorders. *Journal of Community Psychology,* 40, p. 715-734.
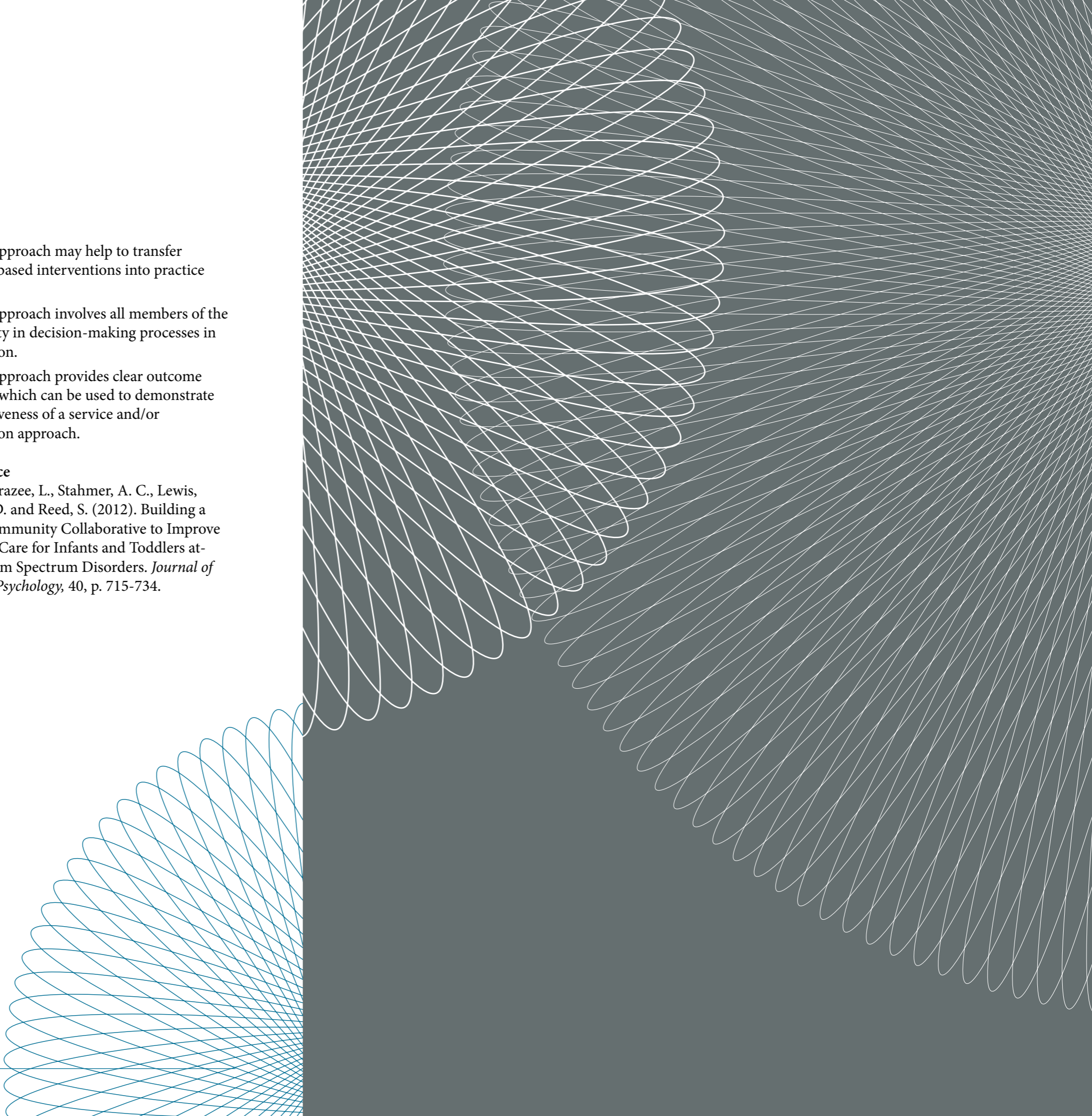
INCREASING COLLEGE-GOING RATE, PARENT INVOLVEMENT AND COMMUNITY PARTICIPATION IN RURAL COMMUNITIES

BACKGROUND

Previous research has shown that several factors play a role in rural students' decision to attend college e.g. the student's family, their education levels, previous experiences and support. The family's financial resources and knowledge of how to obtain financial aid also influence the student's decision. Given that the college-going rate of high school graduates in rural areas such as Appalachia in Mississippi was found to be lower (35-55%) than that of high school graduates nationwide (60%), a number of private programmes have since been developed to help increase the number of rural students choosing to attend college. In 2000, the Appalachian Higher Education Network (AHEN) set up grant funded project centres across the region whose mission was to increase the college-going rate and raise the education attainment levels of students. Research conducted since these centres were established has shown that they have been successful in increasing the college-going rate in these states and thus this study aims to examine Mississippi communities that were part of the AHEN and the perceptions of leaders from some of the grant supported projects to determine which factors they felt most influenced the college-going rate, parental participation in school activities, and community participation.

RESEARCH METHODS

The leaders of eleven grant-supported projects aimed at increasing the college-going rate of high school students in rural Appalachian counties in Mississippi were asked to complete an annual report form as part of the conditions of receiving their grant. Ten of these leaders gave permission for the researcher to include their responses in future research studies. Two of these leaders stated they were unable to fully implement the project and thus did not provide responses to all the questions set within the annual report form. As part of the annual report grant leaders addressed the following four questions:

1. What factors had the biggest impact on increasing the college-going rate?

2. What activities had the least impact?

3. Did you have improved parental participation in school activities and if so what worked/ didn't work?

4. Describe community participation. What worked and what did not?

RESEARCH FINDINGS

Findings were categorised according to themes identified in the data analysis of grant leaders' responses to the annual report form:

Factors with the Most Impact on College-Going Rate

Factors listed by the greatest number of grant leaders as having the most impact on college-going rates included: college campus visits followed by ACT preparation workshops. Reasons why respondents perceived these to have the most impact on college-going rate included that they felt students needed to experience what it was like to be in a college campus to visualise themselves there whilst ACT preparation workshops were important to ensure students met requirements to apply to post-secondary institutions.

Factors with the Least Impact on College-Going Rate

While respondents listed several factors, they perceived had the least impact on college-going rate, there was no commonality and no one factor identified more than once. Items listed included the financial aid workshop, assistance for those uncomfortable in using a computer to complete financial aid forms, providing career information and college visits. Reasons given for these included that some felt the financial aid workshop was offered too late and was not well attended, that parents disliked being given aid to apply for financial aid electronically via FAFSA and instead would have preferred to be guided through paper forms step by step and that whilst providing information on careers informed students of the educational requirements needed it did not change their attitudes on attending college. Finally, one respondent stated that they did not feel college visits were useful as some students were being chosen to attend visits to colleges that they were not qualified to attend which in turn affected their behaviour during the visit.

Improved Parental Participation

Respondents indicated the importance of hosting events and workshops for parents and noted useful strategies to increase attendance, including making sure parents knew about the events and providing food. In addition, providing mentors to assist parents at workshops to complete FAFSA was successful. Activities such as using parents as chaperones on campus visits and involving parents in assembling care packages for students receiving acceptance letters to college were also deemed successful.

Involving the Community

As part of the requirements of the grant, each school worked with a community-based group in the planning and implementation of the project activities. Respondents were asked to indicate if they met their community participation expectations. Of the five grant leaders who responded two indicated they did not, while three indicated they did. With regards to successful methods for encouraging community participation one respondent indicated that emailing community members with requests did not work, while making requests one-on-one was more effective. In particular, contacting a variety of community members was most effective in increasing community involvement. When asked about which activities worked and which did not to increase community participation, respondents' answers about what worked primarily pertained to community members' participation in various events held at the school.

IMPLICATIONS FOR PRACTICE
(by the authors)

- The findings shown in this study as to the factors which influence college-going rates, parental involvement and community participation in rural communities are important as they may be used to encourage rural youth to pursue higher education.

- This study found college campus visits to be beneficial as they provided students with a glimpse of what they are like and may help make students feel more at ease.

- Additionally, ACT preparation workshops may be beneficial in helping students increase their test scores and may encourage reluctant or procrastinating students to sign up for and take the ACT test.

- This study found that workshops for students, parents, and school personnel are important to provide understanding of college entrance requirements and procedures for obtaining financial aid.

- Involving the community through long-term relationships such as mentoring, as well as more short-term encounters such as career fairs or job shadowing, are important components to help rural students connect to professionals who can encourage and assist them as they make decisions.

- There were however, some limitations to the study, including the lack of conclusive data for the change in the college-going rate at each school at the time the project leaders completed the report and the fact that the information is based on the self-reported perceptions of each project leader. Nonetheless, the information provided by the project leaders may prove useful in guiding others working with similar projects.

Full Reference
King, B. (2012). Increasing College-Going Rate, Parent Involvement, and Community Participation in Rural Communities. *Rural Educator,* 33(2), p. 20-26.

TEACHING ELEMENTARY CHILDREN WITH AUTISM: ADDRESSING TEACHER CHALLENGES AND PREPARATION NEEDS

BACKGROUND

In the state of Alabama, the level of specialisation to teach children with autism is not readily available. Educators report feeling inadequately prepared to teach children with autism in inclusive settings. Many general educators report to have only taken survey courses in exceptionalities, and therefore have little specialised training in the field of autism. Lack of motivation and self-efficacy in teachers are often root causes of ineffective teaching of children with autism. Providing the necessary training and clinical experience to teachers may help increase their sense of self-efficacy and competency in their abilities. As a result, they may be more motivated to address the challenges and accept their responsibilities for teaching children with autism.

RESEARCH AIMS

The purpose of this study was to gather information to develop/revise the curriculum at Troy University in Alabama, to prepare teacher graduates to educate all children, including those with autism in general education classrooms.

RESEARCH METHODS

Participants
Students enrolled in the graduate courses Master Teacher, and Collaboration for Inclusion, were invited to participate in the study voluntarily. Thirty-one students participated, including 21 general education teachers, one special educator and nine who were not regularly employed in a teaching capacity. All participants reported minimal or no training or experience in teaching children with autism.

Procedures
The Nominal Group Technique (NGT) was identified to facilitate areas for improvement in the University education curriculum. NGT is a supervised, consensus building process. Groups use it to reach agreement as they identify and define problems and generate solutions and are not influenced by others. Prior to the NGT implementation, students are presented with a one hour lecture about autism, best practices in education for children with autism and a video clip of a child with autism engaged in educational activities. The question given to the participants was "What challenges can you expect when teaching children with autism?" The students were assured that there was no single correct answer.

Following the introduction, the students engaged in a ten-minute silent problem generation. Each student was given the opportunity to share one idea at a time from their list. The facilitator recorded these responses on a single response list. Following this, the students and facilitator grouped similar ideas together and duplicate answers were also combined. Finally, the students ranked their five top ideas in a rank of 1-5 with 5 being the most important answer.

RESEARCH FINDINGS

Five challenges evolved in the response to the question "What challenges can you expect when teaching children with autism?" In addition, participants were also asked "What information/support would help you meet these challenges?" The perceived challenges included:

- The rooted belief that teaching children with autism is a highly-individualised process that requires highly specialised skills and personal attributes.

- Collaboration with other teachers and parents of children with autism is time-consuming and difficult.

- An assumption that children with autism are atypical, complex and generally disruptive of general education classrooms.

- Individual Education Planning (IEP) procedures and recording are extensive and redundant.
- Most general education teachers lack the basic knowledge and skills needed to fully include children with autism in their classrooms.

The perceived needs included:

- More information was needed regarding the process, procedure and practices for teacher and family collaboration for effective inclusion.
- More case and field experience was required for pre-service teachers.
- Increased access to current research and best practice teaching strategies for children with autism was needed.

The findings suggest that Troy University is inadequately preparing teacher education graduates to deal effectively with children with autism. It further notes that considerable attitudinal barriers exist in relation to the inclusion of children with autism.

IMPLICATIONS FOR PRACTICE
(by the authors)

Recommendations were provided to overcome the gaps identified in the current teacher preparation programme for elementary education graduates:

- Introductory coursework should present inclusion of children with autism as a preferred norm and a readily achievable educational outcome.
- Empirically validated and best practice procedures that promote inclusive outcomes should be routinely incorporated into teaching planning and competency assessments. Collation and co-teaching should exist between professors of teaching and special education and their students to ensure they are modelling best practice approaches.

- Footage of actual classroom practice should be used to model best practice instruction for children with autism.
- Teachers in preparation should have multiple opportunities to observe and engage in successful inclusive education programmes. Best practice schools for children with autism should be identified for collaboration with the college students.
- Teachers in training should have numerous opportunities for direct contact with parents and family members of children with disabilities with the goal of promoting partnerships for maximum student success.
- The authors suggested the initiation of an autism centre on the campus of Troy University, as there is not a large enough pool of students with autism to provide clinical and field experience to all pre-service teachers. Such a centre would also serve as a useful resource for parents of children with autism.

Full Reference
Busby, R., Ingram, R., Bowron, R., Oliver, J. and Lyons, B. (2012). Teaching Elementary Children with Autism: Addressing Teacher Challenges and Preparation Needs. *Rural Educator,* 33(2), p. 27-35.

INCREASING COLLABORATION SELF-EFFICACY TO IMPROVE EDUCATIONAL PROGRAMMING FOR STUDENTS WITH AUTISM

BACKGROUND

Collaboration is mandated by the Individuals with Disabilities Education Act (IDEA) of 2004 in specific areas of delivery. It is a dynamic process in which principles of shared respect and responsibility are applied to practice. To effectively serve children and youth in the areas of behaviour management, language and communication and social interaction, executive functioning, self-determination, academics and life skills, it is critical that that there is a collaborative approach from an array of professionals with expertise in this field. As noted in this paper, collaboration among professionals can enhance student outcomes. A number of essential elements of collaboration were identified within this paper. These included:

- Adequate funding for personnel and resources.
- Commitment to team and students.
- Understanding and respecting cultures of other collaborators' disciplines and backgrounds.
- Communication among stakeholders.
- Removing turf issues.

The study assessed the change in perceptions of the special educators' efficacy as collaborators before and after completing a federally funded graduate certificate programme in autism for one year. The specialist post graduate autism specialist programme used for the study consisted of six courses including practical experience working with students with ASD and other disabilities. The courses included diagnosis and treatment in autism disorders, consultation and collaboration in autism and developmental disabilities, teaching students with severe learning difficulties, instructional methods in autism as well as practical tips. The students were special education teachers, service providers and administrators.

RESEARCH AIMS

The aim of this research is to evaluate the effectiveness of this specific training programme in increasing collaborative self-efficacy in educators working with students with autism. A self-efficacy scale which was developed for this study was used to identify the student's entry self-efficacy levels in key areas to be addressed in the specialist programme. The scale was then used to measure the self-efficacy of the students after completion of the programme and compare the two results.

RESEARCH METHODS

A self-efficacy study scale was developed to identify participants' entry level to be addressed in the Autism Specialist Programme and to measure the effect of the training programme on their self-efficacy regarding these skills and competencies. The 41-item scale listed competencies that were aligned with Professional Competencies in Autism and Developmental Disabilities of the Division on Autism and Developmental Disabilities of the Council for Exceptional Children.

A survey was carried out both before and after the training programme asking questions on participants' perceptions of their self-efficacy in the collaborative process of educating students with ASD. One hundred and four participants attended the programme, 94 of which completed the self-efficacy study scale both at the beginning and end of the programme.

Self-perceptions of collaborative expertise were examined in eight cohorts of educators over seven years.

RESEARCH FINDINGS

The research findings signify that for the participating students the outcomes of the personnel training programme greatly increased their level of collaboration self-efficacy in the field of autism. The findings proved consistent over a period of seven years and so it supports the conclusion that the programme increases participants' perceived self-efficacy levels in collaborating with a range of agencies and stakeholders including parents and colleagues.

There is a need however, to further investigate through research how this result affects the outcomes for those with autism.

IMPLICATIONS FOR PRACTICE
(by the authors)

- Findings from this study demonstrate that special educators' collaboration perceived self-efficacy level can be enhanced through evidence-based personnel training coursework and fieldwork.

Full Reference
Emmons, C. and Zager, D. (2017). Increasing Collaboration Self-Efficacy to Improve Educational Programming for Students with Autism. *Focus on Autism and Other Developmental Disabilities,* 8.
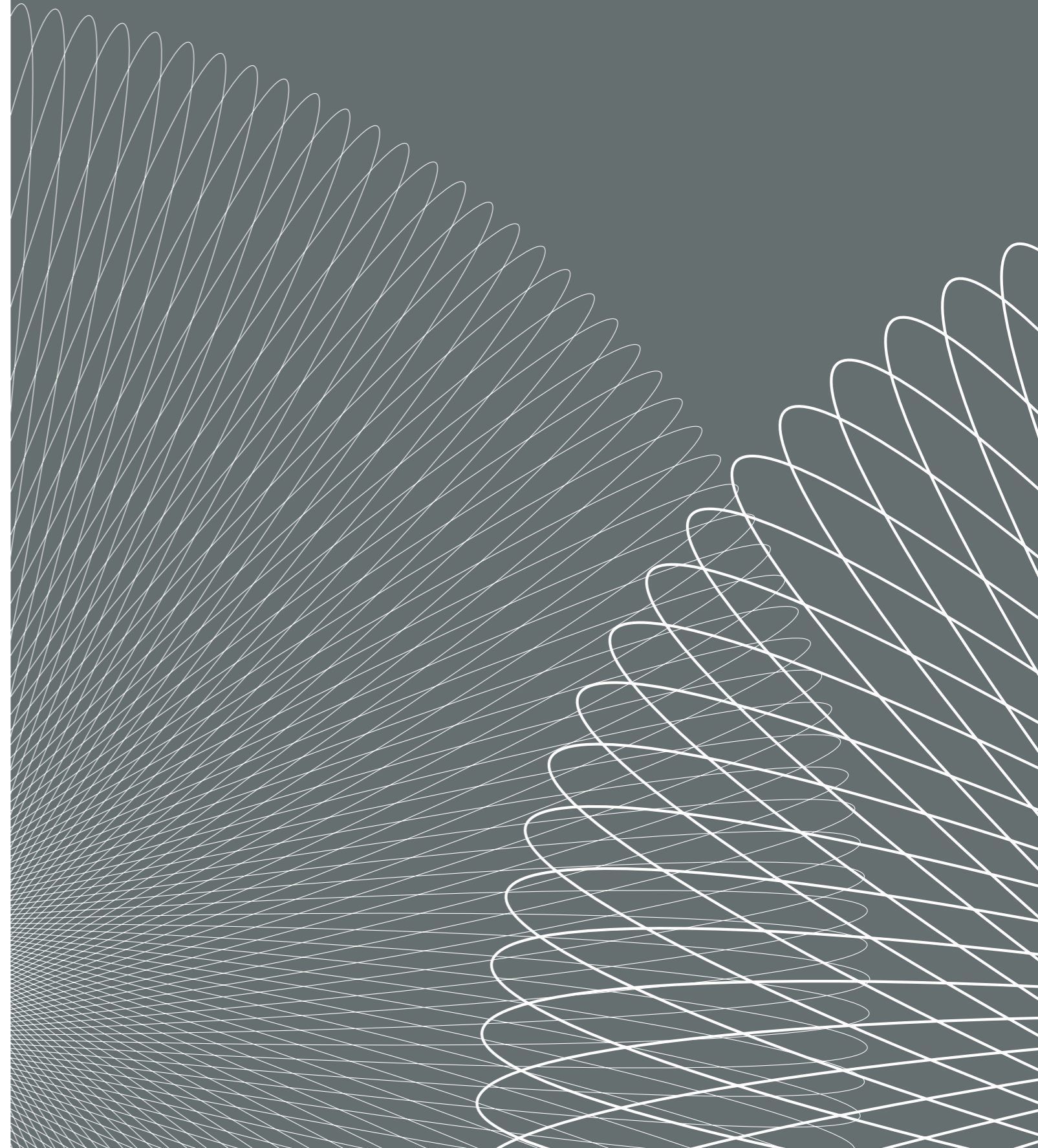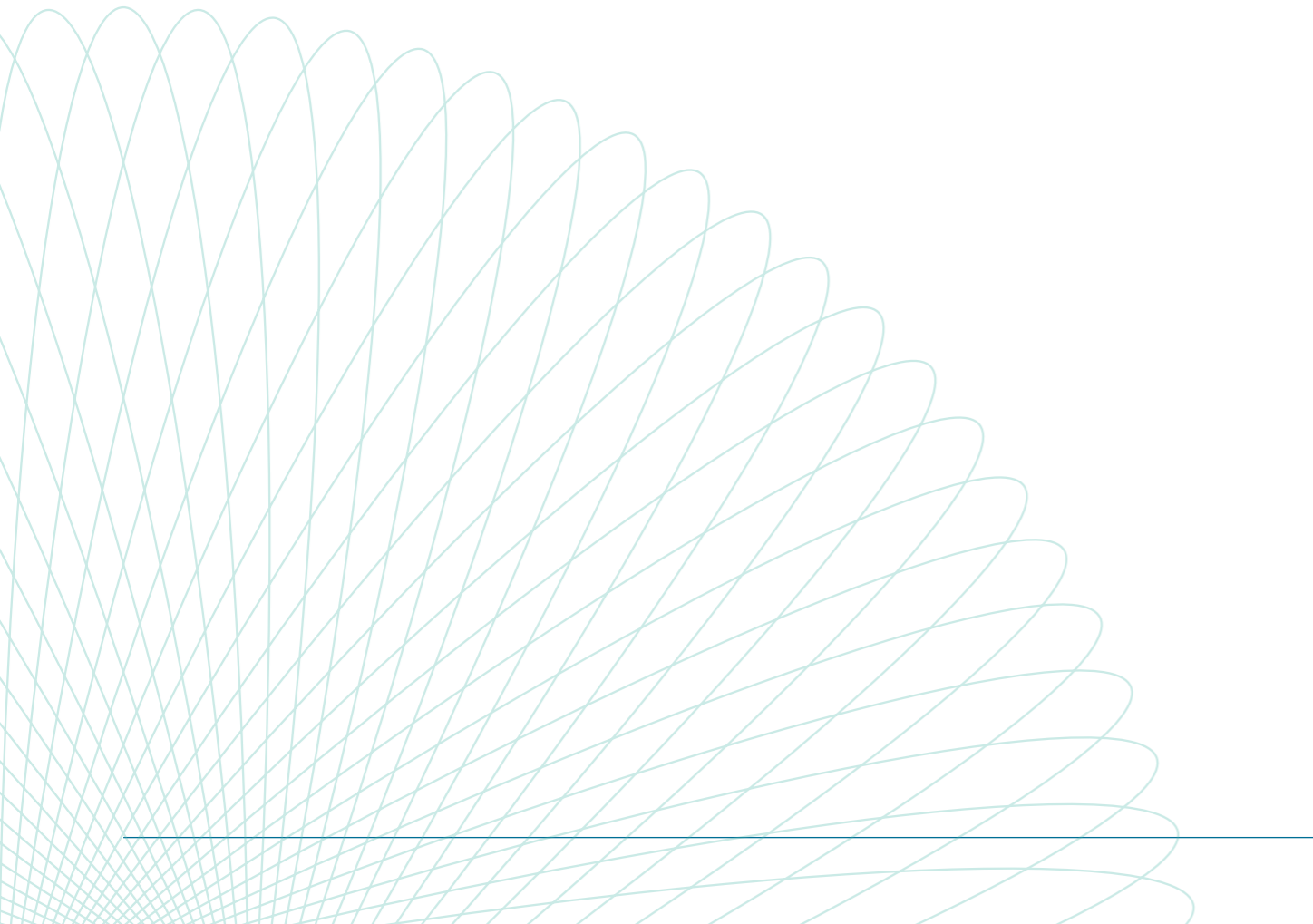
CONCLUSION

The articles summarised in the Bulletin reflect the common themes of collaboration and training as core in the research area of capacity building.

There is strength in working together. The articles reflect that collaborating with parents in the delivery of parental training can lead to capacity building within parents and families. Teachers providing peer support and coaching can lead to better outcomes in teacher training.

Researchers and parents working together can lead to more useful research findings and indications for future directions.

Training needs to be developed carefully with the real life needs of both students with autism and the entire learning community at the forefront of preparation.

Teachers benefit when their autism training is delivered by those who are in touch with people and families with autism and who can make the connection between training provision and the needs of families and communities.

Ideas for future research bulletins can be emailed to **research@middletownautism.com**

YOUR OPINION

The Centre trusts that you have found this Research Bulletin informative. It would be appreciated if you would take a few minutes to provide the Centre with feedback in relation to this bulletin by clicking on the survey link below.

Survey for Autism and Play Volume 2

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