ABSTRACTS FROM THE 2016 RSIG RESEARCH DAY LONDON ON, APRIL 8 – POSTERS

Acute and Long-Term Effects of Aerobic Exercise on Repetitive Behaviours and Task Performance for Adults With Autism Spectrum Disorder and an Intellectual Disability

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Objectives

Autism spectrum disorder (ASD) is a neurodevelopmental disorder that is characterized by (1) deficits in social and communicative functioning, and (2) behaviours, interests and activities that are restricted and repetitive in nature. Thirty-one percent of individuals with ASD also have an intellectual disability (ID) and there is a negative correlation between IQ and the number of repetitive behaviours (RB) exhibited. These behaviours may interfere with an individual's ability to learn new tasks and/or perform familiar tasks. Exercise is an intervention that has been shown to reduce the number of RB exhibited by individuals with ASD. Moreover, exercising at a vigorous intensity may be needed to reduce the severity of RB. Thus, the purpose of this study is to determine whether individuals with ASD and ID (ASD-ID) will (1) exhibit fewer RB and for shorter durations immediately following a moderate-vigorous aerobic exercise session, (2) show an improvement in task performance immediately following each exercise session, and (3) exhibit a long-term reduction in the severity of the RB after engaging in a number of exercise sessions.

Methods

Case studies will be conducted with eight individuals with ASD-ID throughout an eight-week exercise program. Participants need to be at least 18 years of age, have a codiagnosis of ASD-ID, and exhibit a high number of repetitive behaviours (a minimum score of 2 is needed on at least one question from the stereotypic behaviour subscale in the Repetitive Behaviour Scale-Revised; RBS-R). Participants will engage in moderate-vigorous aerobic exercise on a stationary bike for 20 minutes, twice a week, for eight weeks. Exercise intensity will be tracked with the BODYMEDIA® armband. Before the start and after the completion of the program the participant's support worker, parent or guardian will complete the RBS-R. This scale will be used to assess any long-term changes in RB severity displayed by participants. Immediately before and after engaging in aerobic exercise participants will be video recorded for eight minutes, and perform a modified version of the Jebsen Hand Function Test (JHFT). Video observations will allow the researchers to assess any acute changes in the number and duration of RB exhibited. The modified JHFT involves six simple activities (i.e., turning over cards and stacking checkers) and will be used to determine if there is an improvement in task performance.

Results/Discussion

Data collection is expected to be completed by April 2016. It is hypothesized that there will be a reduction in the number and duration of RB immediately following each exercise session. Since RB interfere with an individual's ability to perform tasks, it is expected that a reduction in RB will translate into an improvement in task performance. Furthermore, it is hypothesized that participants will exhibit an improvement in the severity of RB over the eight-week intervention. Overall, this study may provide support for a nonpharmacological intervention for reducing repetitive behaviours, and improvements in task performance may aid future research on integrating adults with ASD-ID into independent living and/or employment settings.

Hypersensitivity Influences Specific Phobia and Insistence on Sameness in Children With but Not Without Autism

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Objectives

Restricted interests and repetitive behaviours are defining features of autism spectrum disorder (ASD), yet understanding of the underlying mechanism of these symptoms remains limited. Two core behaviours, insistence on sameness (I/S), and hypersensitivity to sensory stimulation, have been linked with elevated measures of total anxiety and specific phobia subtypes in children with ASD. This novel investigation had two goals:

1. Determine the relationships between hypersensitivity, I/S, and specific phobia.
2. Compare these relationships between groups of ASD and typically developing (TD) children.

Methods

Parents of 92 children (ASD, *n* = 46, M_{age} = 11.9 years, *SD* = 3.0; TD, *n* = 46, M_{age} = 10.9 years, *SD* = 3.1) completed questionnaires reporting on their child's difficulties related to sensory processing (the Child Sensory Profile-2), I/S (the Repetitive Behaviour Questionnaire-2), and anxiety (the Spence Children's Anxiety Scale). A bootstrap mediation analysis was used to examine whether specific phobia was related to I/S because of its relationship with hypersensitivity.

Results

In the ASD group, our mediation analysis revealed a significant indirect pathway from specific phobia to I/S through hypersensitivity (ab = 0.37, *SE* = 0.1, 95% CI [0.17, 0.55]). Overall, specific phobia was related to I/S (c = 0.48, *SE* = 0.13, 95% CI [0.23, 0.73]); notably, the direct path accounting for the contribution of specific phobia to I/S, independent of hypersensitivity, was not significant (c′ = 0.19, *SE* = 0.10, 95% CI [-0.05, 0.35]). Two additional models testing alternative directional pathways (hypersensitivity → specific phobia → I/S, and hypersensitivity → I/S → specific phobia) yielded non-significant mediation effects. All analyses were non-significant for typically developing children.

Discussion/Conclusions

Our findings indicate that hypersensitivity may play a mechanistic role in the relationship between specific phobia and I/S in children with ASD. Specifically, when a child with autism experiences distress from intense phobias, hypersensitivity to sensory stimulation appears to have a maladaptive purpose, intensifying the expression of restricted interests and compulsive behaviours. Importantly, this effect was only present for children in the clinical sample. This preliminary evidence suggests that future exploration of interventions that teach coping skills for children with ASD could be a key step towards reducing sensory reactivity and overall distress.

Emotion Regulation in Children With Autism Spectrum Disorder: The Role of Parent Co-Regulation and Scaffolding

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Objectives

Emotion regulation (ER), the set of processes that control emotions, may explain many of the externalizing (e.g., aggression) and internalizing (e.g., anxiety) emotional and behavioural problems in children with autism spectrum disorder (ASD). Parents can support children's emotional development and ER through co-regulation (i.e., motivational and emotional scaffolding, and helping their child regulate emotions), which may help improve psychopathology. However, research has only focused on very young children with ASD, despite parent support of child emotion regulation going well beyond the preschool years. The current study examines the following research questions:

What types of co-regulation strategies do parents of school-age children with ASD use?

What are the associations between parent co-regulation strategies, child ER, and child externalizing and internalizing problems?

Do child ER skills mediate the relation between parent co-regulation and child psychopathology?

Methods

All 49 participants (88% male, *N* = 43) were enrolled in a randomized controlled trial of CBT to improve ER in children with ASD, 8 to 12 years of age (*M* = 9.65, *SD* = 1.33) with average intellectual functioning (IQ > 80). Most parents in this sample were mothers (78%, *N* = 38). Data analyses are based on the baseline data collection period. We used two open-ended measures for child ER ability: *Dylan is Being Teased* and *James and the Math Test*. To measure parent co-regulation strategies, we applied a behavioural coding scheme to a standardized *Emotion Discussion Task*, in which each parent-child dyad discussed a time when the child felt anxious, angry, and happy (five minutes per emotion). We created three composite scores for parent co-regulation strategies: Vocal, Active, and Following. We also assigned global ratings for the quality of parent scaffolding using a 5-point Likert scale. Externalizing and internalizing problems were measured via the *Behavior Assessment System for Children, Second Edition – Parent Rating Scales*.

Results

The most commonly observed types of co-regulation strategies were prompting (*M* = 22.57, *SD* = 5.00) and emotion following (*M* = 21.63, *SD* = 5.30). Child externalizing problems were significantly associated with the mean quality of parent scaffolding (*r*(46) = -.36, *p* = .01) and child ER ability (*r*(46) = -.31, *p* = .03), and were marginally significant with the Following coregulation composite (*r*(46) = -.28, *p* = .06). The overall model accounted for 29% of the variance in externalizing problems, *F*(4,40) = 4.11, *p* = .007. Although child ER did not emerge as a significant mediator, parent scaffolding (*t* = -2.12, *p* = .04) and child ER (*t* = -2.30, *p* = .03) were significant independent predictors of externalizing problems.

Discussion/Conclusions

This is the first study to use observational methods to investigate parent co-regulation and ER in school-age children with ASD. Parents commonly used prompting and emotion following, which may help guide children's emotional experience and avoid emotional arousal, while helping children internalize adaptive ER skills. With future research, parent co-regulation and scaffolding may emerge as useful areas of focus in interventions targeting externalizing problems in children with ASD.

School Satisfaction in Parents of Canadian Children With Developmental Disabilities

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Objectives

School is a major part of the life of all children, including children with Developmental Disabilities (DD). Children with DD have the right to an “appropriate” education and may be in various types of educational placements. Parents of children with DD often experience difficulties and frustrations accessing appropriate services, including appropriate school programs (e.g., Zablotsky, Boswell, & Smith, 2012). However, surprisingly little research has been done on school satisfaction, especially in Canada.

The current study had three Objectives (1) to examine the overall level of school satisfaction in Canadian parents of children with severe/multiple DD compared to parents of children who are Typically Developing (TD); (2) to examine the validity and reliability of the GO4KIDDS School Satisfaction Scale; and (3) to describe nine specific aspects of school satisfaction (e.g., communication with school staff) in parents of children with severe/multiple DD, and investigate the relationship of school satisfaction to child, family, and environmental factors.

Methods

This study uses data from Great Outcomes for Kids Impacted by Severe Developmental Disabilities (GO4KIDDS), a CIHR-funded research program investigating the health, well-being, and social inclusion of school-aged children with severe/multiple DD across Canada. We first compared the overall school satisfaction between DD (*n* = 417) and TD (*n* = 210) groups, matched on key demographics. Children ranged in age from 4 to 19 and were 69% male. Respondents were primarily biological mothers (93% of DD, 94% of TD). The measure of school satisfaction was a single item rated on a 5-point Likert scale, ranging from *very dissatisfied* to *very satisfied*. We then used a subsample of 185 parents from the DD group, correlating a 9-item GO4KIDDS School Satisfaction measure with child (e.g., maladaptive behaviour), family (e.g., SES), and environmental (e.g., type of school placement) variables.

Results

Analyses are currently underway. Preliminary analyses show that the reliability of the GO4KIDDS School Satisfaction Scale is very good, with high internal consistency (✔ = .93) and item-total correlations (all over *r* = .62). Analyses will focus on the relationship of the total score on the scale to child, family, and environmental factors using Pearson *r* correlations and independent *t*-tests, and a subsequent hierarchical regression to determine the best predictors of school satisfaction.

Discussion/Conclusions

Preliminary findings suggest that the GO4KIDDS School Satisfaction Scale is a good measure, supporting its use to investigate the relationship of school satisfaction to child, family, and environmental factors. Despite the study’s limitations as a correlational study, results are expected to have many implications for policy-making, training, planning, and advocacy.

Neuropsychological Differences in Attentional Biases and Distractor Responsiveness Between ADHD Adults and Their Peers

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Objectives

As a consequence of the right hemisphere dominance in visuospatial attention, neurologically healthy people have slight leftward attentional bias in visual perceptual tasks (i.e., pseudoneglect), and this bias is amplified by pixel noise as a result of distractor removal. Yet little is known about the underlying mechanisms of visuospatial attention in individuals with developmental challenges such as attention-deficit hyperactivity disorder (ADHD), and how they relate to their right brain dysfunction. The objective of the current study is to examine the pattern of attentional biases and pixel noise responsiveness in individuals with ADHD using a perceptual judgment task.

Methods

We asked 21 university students diagnosed with ADHD (*M* = 22.00, *SD* = 2.37) and 38 neurotypical controls (*M* = 19.56, *SD* = 2.12) to make perceptual judgments in a rating scales task (GST), which possesses good sensitivity and correlates reliably with other perceptual judgment tasks proven to capture attentional biases. We measured attentional biases and task sensitivities in adults with and without ADHD using the GST in a high (HI) and a low (LO) spatial-frequency condition of the GST, and we degraded stimuli with distracting pixel noise

Results

Consistent with our previous work, we found a "cross-over" effect of HI vs. LO biases (i.e., leftward bias in the HI condition and rightward bias in the LO condition) in the control group and the effect grew as a function of pixel noise. But the ADHD group exhibited no signs of pseudoneglect or noise-dependent amplifications. Interestingly, ADHD individuals produced psychometric functions with normal slopes, suggesting that they had little difficulty with the pixel noise. Furthermore, at intermediate levels of noise their biases became indistinguishable from neurotypical biases, suggesting a potential facilitatory effect of perceptual noise on performance for patients with ADHD.

Discussion/Conclusions

Our findings demonstrate that there is a severe lack of the right dominant normal attentional functions in ADHD that can be ameliorated with visual noise, perhaps through sensory stimulation. This study contributes to the growing literature of pathology of the right hemisphere in the ADHD population and increases our understanding of the neural mechanism of visuospatial abilities associated with attention deficit.

Making Space for Inclusive Research: Developing an "Easy Read" Text About Intimate Citizenship

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Purpose/Objectives

This presentation outlines the process of including self-advocates as co-researchers in an emerging line of international research collaboration, "Making Space for Intimate Citizenship." Despite considerable gains in promoting inclusive research with labelled people, there remain inequitable divisions in the labour of knowledge production. Key among these is the inclusion of labelled people in the theoretical, conceptualization and analytic stages of the research process. We focus on the specific process of creating "easy read" documents explaining intimate citizenship: "easy read" is an accessible, plain language document comprised of short sentences paired with explanatory images. We demonstrate how this facilitated access and inclusion of the co-researchers; challenged traditional research relationships; empowered advocates to be more involved in the research process; and enhanced the theorizing stage for everyone on the research team.

Methods

Two research teams comprised of self-advocate co-researchers, community partner organizations and academic researchers located in Ontario and Northern England engaged in a participatory arts-based dialogue to create accessible, "easy-read" web-documents. The process entailed iterative discussion, transcription and collaborative editing. Once a draft "easy read" document was completed, it was pilot tested with three different groups of labelled people. These groups were selected using convenience sampling techniques, each group consisted of four to seven participants. Groups provided verbal feedback to the co-researcher teams. Final edits were made to the easy read documents; documents were shared online for use in guiding an international connection workshop initiating the Making Space international research collaboration.

Results

Significantly, the project offered an unexpected opportunity for knowledge coproduction within mixed researcher teams. Through collaborative discussion and reflection, "intimate citizenship" was elaborated beyond current representations in traditional academic literature. Further, the concept was enhanced in a way that extended its application in research, service and advocacy. For instance, the project led to the development of a series of "easy read" documents explicating the elements of intimate citizenship. These included documents addressing citizenship, rights, intimacy, love, caring labour, consumer practices, neoliberalism and other research and advocacy related terms. The document was used to guide an ongoing international research initiative and enhance labelled people's engagement with the research process. However, it also revealed the extent to which Canadian self-advocates – in contrast to UK self-advocates – are marginal to the conceptualization and analytic stages of participatory research processes. Moreover, important differences between Canada and the UK regarding the visual/image representation within plain English texts were noted.

Discussion/Conclusions

Greater attention is needed to the challenges and possibilities of including labelled people in all aspects of the research process. The development and use of "easy read" documents is one way in which this can be facilitated. This has potential to enhance access and participation for *all* members of the research team.

IQOL: A Measure of the Impact of Problem Behaviour on Quality of Life

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Introduction and Objectives

Community-based ABA programs for individuals with IDD/DD often use a "mediator-model" to treat challenging behaviours. In these programs a behaviour analyst develops intervention strategies and provides treatment plans to be implemented by natural caregivers (Gambrill, 2012). These government-funded programs have a common need for program evaluation measures that are (1) specific to ABA-based interventions, (2) go beyond numeric data to determine the degree to which observed changes in behaviour are meaningful to the individual and their caregivers, and (3) to determine the impact of behaviour changes on their life quality. Condillac (2009) has designed a system of program evaluation measures to meet the preceding needs. These measures are designed to (1) track ABA assessment and intervention techniques and behavioural outcomes, (2) measure the perceived severity of problem behaviour by caregivers, and (3) determine the impact of problem behaviour on the quality of life of the individual and those in their environment. This poster will focus on the development of the Impact on Quality of Life Scale (IQOL; Condillac, 2009), which measures the degree to which the problem adversely impacts the individual's quality of life and that of others in their environment.

Methods

For this poster, the measure was piloted with the caregivers of 25 individuals with ASD/DD who were receiving community based ABA treatment for problem behaviour. Behaviour consultants working with the parents administered the measure. The reliability, face validity, and usability of this measure were examined.

Results

Preliminary results from the 25 caregivers suggest that the IQOL is user friendly, focuses on areas of quality of life that are impacted by problem behaviour, and has acceptable internal consistency (.871 for individual, .950 for caregiver, and .949 for the full scale).

Discussion/Conclusions

These results provide support for further research and field-testing of the IQOL within a prospective program evaluation pilot.

Exploring the Development of Independence, Sexuality, and Social Relationships Among Adults With Intellectual Disability in London, Ontario

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Objectives

Transitioning to adulthood for individuals with intellectual disabilities (ID) can be fraught with unique challenges as compared to their counterparts without. One aspect of transitioning to adult status that is often overlooked for adults with ID is the formation and maintenance of meaningful platonic and sexual relationships. The proposed research will explore how adults with ID exercise independence in the development and negotiation of socio-sexual relationships, namely friendships and intimate partnerships. The following questions have been designed to achieve this research aim: (1) What role does the issue of independence play in the development of socio-sexual relationships among adults with intellectual disability? (2) To what (if any) extent do caregivers and others in the social/care environment facilitate and/or create barriers in the development of these socio-sexual relationships? (3) How do these experiences with and potential challenges related to relationship formation affect the social and sexual health of adults with intellectual disability?

Methods

The methodology of the proposed research will be qualitative, a form of inquiry that focuses on gaining an in-depth understanding of the experiences and perspectives of the social world in which each participant resides. 20 adults with ID (aged 19 and above) residing in London, Ontario will be recruited from various supportive agencies, such as Community Living London, and the London Down Syndrome Association. Each participant will engage in a one-hour semi-structured interview during which time the primary researcher will explore the experiences they have had regarding relationship formation according to the research questions stated in the objective. Additionally, five parents and five support workers will be interviewed in order to investigate the experiences and attitudes they hold in regards to supporting the formation of relationships by the adults they support. This will be done in order to provide triangulated data, which enriches the quality of qualitative data analysis.

Results

Data collection of the proposed study is expected to begin in March of 2016.

Discussion/Conclusions

Organizational, National, and International policies stress the importance of valuing the rights of people with ID as equal to those without, and this includes matters related to the formation and maintenance of meaningful relationships. It is currently unclear as to how (or if) these policies that stress the importance of supporting the formation of meaningful relationships are enacted at the individual level. The proposed study will address this knowledge gap by presenting the experiences adults with ID in London, Ontario have had in this realm. The real-world experiences gained from this research may be used to inform policies and handbooks to better enable supporters and caregivers of adults with ID to encourage the formation independent, healthy, and meaningful relationships.

Co-Occurring Problems in Auditory Filtering and Intersensory Processing of Speech Information in Children With Autism Spectrum Disorder

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Objectives

Children with autism spectrum disorder (ASD) experience abnormalities in sensory processing compared to typically developing peers. Some abnormalities in sensory perception include a difficulty to integrate input from multiple sensory modalities (Iarocci & McDonald 2006). This difficulty is particularly evident when processing linguistic information, which suggests that language is closely associated with intersensory processing abilities in ASD (Bebko, Demark, Weis, & Gomez, 2006).

Auditory filtering is the ability to filter out salient sound from background noise, such as when "tuning in" to a conversation in a noisy social environment (the cocktail party phenomenon). Auditory filtering impairments have been found in ASD (e.g., Rogers, Hepburn, & Wehner, 2003). This impairment may be related to the speech-specific deficit in intersensory processing observed in individuals with ASD as both processes require individuals to selectively pull out language-related information in complex social settings. We investigated whether or not auditory filtering abilities described by parents can predict observed intersensory processing of speech.

Methods

Participants included 18 children with ASD and a matched group of 20 children with typical development, six to 16 years old. Parents completed the Short Sensory Profile Questionnaire and children viewed a screen displaying identical videos in each of the four quadrants of the screen. The videos were offset in time from one another with the auditory track synchronized to only one of the screens. Some of the videos contained linguistic information (a woman telling a story) and some contained non-linguistic information (e.g., a finger pressing on piano keys). An eye-tracking device recorded the participants' eye movements.

Results

Parent-reported Auditory Filtering scores (from the Short Sensory Profile) significantly predicted the proportion of time looking within the synchronous screen for the ASD group, $r(16) = .6$, $p = .009$, but not for the TD group. However; this relationship was only apparent for the linguistic stimuli. Auditory Filtering was not correlated to looking time to the non-linguistic stimuli for either the ASD or TD groups.

Discussion/Conclusions

Auditory Filtering seems to be closely associated with intersensory perception in children with ASD and, perhaps exclusively, with the intersensory processing of speech. To better understand if deficits in Auditory Filtering play a key role in difficulties in intersensory perception of speech, a more longitudinal study would be beneficial, or a measure with a more finely categorized degree of auditory filtering may be helpful. Early remediation of auditory filtering challenges may promote the development of socio-linguistic communication.

On the Effectiveness of Teaching Memory Strategies: A Japanese-Canadian Cross-Cultural Examination of Training in Clinical and Non-Clinical Samples of Children

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Objectives

Children with typical development use spontaneous cumulative rehearsal strategies in memory tasks by approximately 7 years of age (e.g., Bebko, 1979, 1984), In contrast, many children with developmental difficulties, such as children with autism spectrum disorder (ASD), are less active strategy users. Nonetheless, rehearsal has been linked to proficient language skills in both ASD and non-ASD groups (Bebko & McKinnon, 1990; Bebko & Ricciuti, 2000, Bebko et al., 2015). However, since most of the rehearsal studies have been conducted in a Western cultural context and are embedded in the English language it is unclear whether this relationship is in fact universal outside the Western socio-linguistic culture. Furthermore, although there is research indicating positive effects of rehearsal training in several developmentally challenged populations, such as Down syndrome (Broadly & MacDonald, 1993), researchers have not extensively investigated the effect of rehearsal training in children with ASD. To address these questions, the current study examines the emergence of rehearsal use crossculturally in a non-Western context and evaluates the immediate and long-term effectiveness of rehearsal strategy training in children with ASD in Japan and Canada.

Methods

Samples of 4- to 8-year-old non-clinical children and children with ASD in Japan and in Canada were tested in a multiple-baseline design, where each child acts as her/his own control. During serial recall tasks, rates of spontaneous rehearsal use were determined for all groups and the effectiveness of a one-session strategy training procedure was assessed.

Results

Results for the Japanese samples essentially paralleled the Canadian samples. Few spontaneous rehearsal strategy users were found in either ASD group. In addition, across both clinical and non-clinical samples in both countries, rehearsal use was associated with verbal mental age of the child, providing indirect support for the language proficiency – rehearsal use relation across languages and cultures. The strategy training session was initially effective; however, two weeks after training, strategy use was not well-maintained nor generalized, particularly for the ASD groups.

Discussion/Conclusions

Findings from the current study demonstrate that (1) the hypothesized relationship between language skills and rehearsal use seems largely culture, language and diagnosis-free, with a similar pattern of emerging memory strategy use in the two language groups, and (2) a one-session strategy training was initially effective; however, it appears that the length of training needs to be extended for children with ASD to maintain and generalize gains. Please note: This submission is one of three related presentations/posters submitted together from our lab.

"In Medical School, You Get Far More Training on Medical Stuff Than Developmental Stuff": Perspectives on ASD From Ontario Medical Practitioners

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Objectives

Individuals with autism spectrum disorder (ASD) demonstrate a wide range of impairments in communication and social function, as well as repetitive behaviours and restricted interests (Devlin & Scherer, 2012). According to the Centers for Disease Control and Prevention (2014), approximately, 1 in 68 children is diagnosed with ASD. Parents of children with ASD have raised concerns regarding the delay in diagnosis of ASD (Keenan et al., 2010), medical practitioners' lack of knowledge about diagnosis and treatment of ASD (Carbone et al., 2010), and lack of social support due to the paucity of financial and medical resources (Glazzard & Overall, 2012). Health care professionals play an important role in identification and treatment of children with ASD. Nonetheless, research shows that although children with ASD often show signs of autism as early as six months of age, they do not receive a diagnosis until the age of 3–4 years (Rhoades, Scarpa, & Salley, 2007). As Rhoades and colleagues (2007) stated, many health care providers feel incompetent in both the assessment and diagnosis of ASD. For example, research suggests that many medical practitioners in the United States have raised their concerns about how demanding the ASD screening tools are with regards to knowledge, time and administration (Carbone et al., 2010; Nah, Young, Brewer, & Berlingeri, 2014). Nonetheless, there is a paucity of research on these matters in Ontario. Therefore, the purpose of this research is to investigate the knowledge of Ontario medical practitioners regarding the diagnosis and treatment of ASD in Ontario.

Methods

A total of 26 medical practitioners including family physicians, paediatricians, developmental paediatricians, psychiatrists and emergency doctors were recruited from Northern Ontario, Ottawa region, Niagara Falls, and Toronto. My research employed a two-phase, mixed methods approach. During the first phase, participants filled out a questionnaire regarding their knowledge and attitudes about ASD. The second phase incorporated a semi-structured interview, in which participants were asked to answer questions with regard to their knowledge about the identification, diagnosis, and treatment of ASD. The participants were also asked about their experiences of working with this population.

Results

Data collection is ongoing, but preliminary analysis of the quantitative results, using descriptive analysis, Paired samples *t*-tests and correlations, revealed that there is a significantly higher perceived level of knowledge regarding the assessment and treatment of ASD in comparison to other developmental disabilities such as fragile X syndrome and fetal alcohol spectrum disorders. The results also showed that there is a significant positive correlation between participants' perceived levels of knowledge regarding the diagnosis and treatment of ASD and their previous work or volunteer experiences with individuals with ASD. Nonetheless, no significant correlation was found between the years of practice and perceived level of knowledge regarding the diagnosis and treatment of ASD. The results of the interview also showed that there is a discrepancy between participants' perceived levels of knowledge regarding the diagnosis and treatment of ASD and their reported comfort level dealing with these patients. In addition, the analysis of the interviews indicated that the participants diffuse responsibilities to other medical practitioners with regard to diagnosing and treating individuals with ASD.

Discussion/Conclusions

The results of this study will provide a better understanding of medical practitioners' knowledge with regards to the diagnosis and treatment of ASD. Findings will also have implications for raising awareness in health care systems regarding the steps that need to be taken in order to enhance the diagnosis and treatment of ASD.

Effects of the Adapted Peers© Program on Adults With Developmental Disabilities and Challenging Behaviour

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Objectives

The Program for the Evaluation and Enrichment of Relational Skills (PEERS) is a parent-assisted intervention focusing on teens in high school that are having difficulty making or keeping friends. This program has been evaluated and found to be effective amongst its target population of teens with Asperger's and high functioning autism. To the best of our knowledge, there is little evidence on the generalizability of the program to different populations. This study examines whether specific accommodations could be applied to the PEERS program in order to replicate the PEERS' ASD findings with adults who have intellectual disabilities and developmental disabilities (IDD), and who engage in frequent challenging behaviours (CB) and live in a residential setting.

Methods

Bethesda Services is a not-for-profit organization that provides clinical services and residential placement for adults with IDD, including those with CB. In this study seven adults that resided in a highly-staffed residential setting voluntarily attended a modified version of the PEERS program. The modifications were made with permission of the authors of the PEERS program, and included omitting the lessons that were believed to be of more complex content, providing the participants with frequent breaks and additional opportunities to role play, and creating supplementary resources such as visuals of the core concepts, "cheat sheet" of the skills taught and homework pages. The group ran once a week for 2 hours for duration of 8 weeks. Instead of the parent group, direct support professionals attended a staff only group, which ran concurrently for 1.5 hours for duration of 9 weeks. Both the adult and the staff sessions where video recorded assess internal validity of the curriculum.

Results

Evaluation was completed by using a pre- and post-test measure recommended through the PEERS curriculum – Total Assessment of Social Skills Knowledge (TASSK). In addition to this measure, *in-vivo* behaviour probes were completed pre- mid- and post-test, and approximately 3 months following the post-test. The results of the pre- and post-test TASSK scores showed a significant increase ($p = .01$) in the social skills knowledge of the participants; observational probes also showed improvements.

Discussion/Conclusions

The poster will elaborate on the specific accommodations made to the curriculum, results and efforts made to maintain treatment integrity. We will examine the limitations of this study and future research.

Follow-Up Assessment of an Evaluation of Behavioural Skills Training for Teaching Graduate Student Therapists to Provide Evidence-Based Treatment to Children With Autism Spectrum Disorder

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Objectives

There is a strong literature base to support the effectiveness of evidence-based practice (EBP) for youth with autism spectrum disorder (ASD). However, there is a dearth of knowledge regarding best practices for training therapists how to implement EBP. Ensuring therapists are well trained to implement best practices is vital to outcomes for individuals with ASD. The current study assessed the effectiveness of a passive training strategy (self-study of intervention manuals) versus an active training strategy (Behavioural Skills Training, BST) for therapist skill development. We are currently assessing maintenance of skills over time and generalization of skills from training contexts to practice.

Methods

We conducted a modified multiple-baseline design across three pairs (n = 6) of graduate student therapists recruited to implement a manualized emotion regulation intervention for youth with ASD. Therapists first completed 3 hours of passive training (self-study of manuals) followed by 3 hours of active learning (Behavioural Skills Training, BST). After each phase, we assessed therapists' performance in mock sessions with a confederate role-playing a child with ASD. Trained observers then coded therapists' performance in each phase on two outcome measures: (1) session fidelity, scored as percent correct on session checklists (interobserver agreement M = 95.76%, range = 86.67%–100%); and (2) session quality, rated on a 5-point Likert scale (interrater reliability M = .92, range = .84–.99).

Results

Five of the six therapists demonstrated an increase in fidelity after active training (M = 4.76%, change from baseline, range = -1.57%–8.77%), and four of the six therapists showed an improvement in session quality (M = 0.30, change range = -0.20–1.28). Observers are currently coding therapists' performance in follow-up sessions with children with ASD to assess for generalization and maintenance of session skills and quality, as well as if therapist performance in training is predictive of performance in the therapeutic context.

Discussion/Conclusions

After active training (BST) therapists demonstrated improved implementation behaviour as measured by fidelity checklists and improved session quality ratings compared to their scores after the passive training (self-study). Empirical support for active training strategies may lead to enhanced training for important individuals who provide essential services to individuals with ASD, and in turn better outcomes for clients.

Raising an Adolescent With Autism Spectrum Disorder: A Qualitative Study

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Objectives

Although autism spectrum disorder (ASD) is a lifelong disorder, much of the current literature has been focused on the experiences of families with young children. As the child matures, the research becomes sparser and the experiences, needs, and outcomes of individuals and their families during the period of adolescence and adulthood have remained largely unexamined. The limited number of studies on this population suggest that adolescence is a challenging and resource-intensive time for families. In this poster, we will describe the lived experiences of parents raising an adolescent with ASD. Specifically, we will identify the needs of adolescents and their families and document areas of strength.

Methods

This study was conducted as part of a larger study following the outcomes of adolescents who previously received early intervention. The adolescent participants in this sample were 14 to 20 years old and were being assessed on their cognitive ability, adaptive behaviour, academic skills, autism symptom severity, and social-emotional functioning. Semistructured in-depth interviews ranging from 1 to 1.5 hours long were conducted with 10 families with adolescents diagnosed with ASD and variable cognitive ability. Grounded theory was used to analyze the parents' perspectives and feelings about the meaning of ASD, current experience with raising an adolescent with ASD, changes from childhood to adolescence, and expectations for the future.

Results

In our sample, preliminary qualitative analyses revealed that, over the years, the meaning of ASD for these parents became more multi-faceted as they learned to better understand their child. Parents reported feeling more positive about the diagnosis and discussed the improvements their child has made since the first diagnosis. The majority of parents responded that they were satisfied with the treatments and services that were offered in early childhood but some felt that the current services offered do not meet their adolescent's needs. Parents also reported struggling with their adolescent's growing need for independence and how to best support him/her.

Discussion/Conclusions

Many parents reported more positive experiences from childhood to adolescence. Parents found that they felt more empowered and confident with their knowledge of ASD to better advocate for their adolescent. Findings from preliminary qualitative analyses suggest that a service gap exists for adolescents with ASD. More emphasis is needed on providing better supports for transitioning into high school and services which address the comorbid mental health disorders with ASD.

Predictors of Frequent Emergency Department Visits in Young Adults With Developmental Disabilities

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Objectives

This study aimed to identify: (1) the percentage of young adults with developmental disabilities (DD) age 18–24 in Ontario, who visit the emergency department (ED) frequently, and (2) factors that determine the frequency of ED visits in this population.

Methods

A sample of 15,980 young adults with DD was derived from a larger cohort of 66,484 individuals with developmental disabilities ages 18–64 in Ontario, constructed previously by linking Ontario administrative health data held at the Institute for Clinical Evaluative Sciences and social supports data held by the Ontario Ministry of Community and Social Services. The current study compared young adults with DD who visited the ED five or more times in the fiscal year 2009/2010, with those who visited the ED zero to four times in the fiscal year 2009/2010. A multivariate logistic regression was performed to predict high frequency of ED visits in young adults with DD from demographics (age, sex, income, area of residence), health characteristics (presence of autism spectrum disorder (ASD), psychiatric disorder, addiction, morbidity), and health services use (primary care visits, psychiatrist and specialist visits, ED visits, hospital admission, continuity of care).

Results

Of the 15,980 young adults with DD, 4% visited the ED at least five times in a one-year period (*n* = 626). The group of frequent ED visitors was more likely to be female, live in low income neighbourhoods, have a psychiatric disorder or substance addiction, have greater overall ill-health, and have greater degree of health service use but lower continuity of care than those who accessed the ED less than five times. The group of frequent ED visitors were also less likely to have a diagnosis of an ASD, and come from large urban centres than other young adults with DD.

Discussion/Conclusions

Demographic, health/mental health status and service use factors all contribute to frequent ED use in young adults with DD. Future research might focus on better meeting the need of individuals with poorer health and/or mental health in the community. In addition, the relationship between ASD diagnosis and ED use requires further exploration. Finally, continuity of care is one area of intervention that could be explored to address the needs of young adults with DD who use the ED frequently.

Perceptions of Family Quality of Life for Parents Raising Children With Autism

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Objectives

There has been considerable research focusing on the quality of life of individuals with developmental disabilities, but recently there has been a shift towards considering the quality of life of all family members (Samuel, Rillotta, & Brown, 2012). Family Quality of Life (FQOL) includes domains such as physical and material well-being, emotional well-being, family interaction, parenting, and disability-related support (Hoffman, Marquis, Poston, Summers, & Turnbull, 2006). Little research has examined FQOL specifically for parents of children with autism. The purpose of the present study was to develop an understanding of how parents of children with autism perceive FQOL and an accompanying measure (Hoffman, et al., 2006). In addition, the results have been used to develop the methodology for a doctoral dissertation.

Methods

Eleven parents of children with autism (nine mothers, two fathers) were recruited for this study through a preschool for children with autism. Participants completed a demographic questionnaire and the Beach Centre Family Quality of Life Scale (FQOLS; Hoffman et al., 2006), which has 25 items that are rated on a scale from 1 (*Very Dissatisfied*) to 5 (*Very Satisfied*). Parents met with the first author and provided feedback about this questionnaire and answered interview questions about their experiences as parents of children with autism and how this relates to their FQOL. Interviews were transcribed and coded by trained research assistants. Transcripts were then analyzed using Braun and Clarke's (2006) Thematic Analysis by the authors, a psychology graduate student, and the parent advisor for the project.

Results

Due to the small sample size, the ratings of the FQOLS are described and no statistical tests were conducted. Participants in this study had an average total score of 104 on the FQOLS, which indicates a relatively high level of satisfaction with FQOL (scores potentially range from 25 to 125). Participants generally indicated that the FQOLS was easy to fill out and relevant to their experiences. Participants described how their lives are "different" and "difficult," but that their experiences have also allowed for "growth." The importance of "resources" and "support" was emphasized, along with the benefits of focusing on "family interaction." An unexpected theme was the experience of unsupportive social responses (mentioned by six of 11 participants).

Discussion/Conclusions

The results of this research will give researchers and practitioners a richer understanding of how parents perceive FQOL and this accompanying measure. The parents' responses highlighted the ways in which raising children with autism impacts the entire family unit and their quality of life. This study represents a first step towards applying the FQOL body of research to parents of children with autism. An area of further interest is the nature of unsupportive social responses in relation to FQOL in this population. There is often an assumption that all interactions with others are beneficial, but this research suggests that unsupportive responses are a common experience for parents of children with autism. The present study is limited by its small sample size, which will be addressed in future research related to this project.

Self-Directed Learning for Interview Skills

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Objectives

Individuals with developmental disabilities are less likely to obtain employment that is equal to their acquired education. Employment rates for individuals diagnosed with Asperger syndrome range between 5%–55% (Kreiger, Kinebanian, Prodinger & Heigl, 2012). Providing skills to improve interview skills may be beneficial in obtaining a desired position. The current single subject study followed a 15-year-old boy, diagnosed with Asperger syndrome in his socially significant, self-selected goal of improving his interview skills.

Methods

The participant used worksheets and reviewed corresponding video models for target questions. After review of worksheets and video models, a Behaviour Skills Training (BST) approach was utilized to teach the target questions. The participant was to review worksheets and video models at home, and practice with his parents. Once all target questions had been reviewed, the participant engaged in weekly mock interviews. He was also provided a list of the questions, but was unaware of the order which they would be presented. Generalization was built into the program where each week the meeting space changed and the primary interviewer changed.

IOA data was collected for 100% of treatment sessions (not collected for baseline) and ranged between 74.2%–100% accuracy. The mean IOA was 89.9%. The parent was able to collect consistent data that was comparable to that of the autism consultant.

Results

The participant progressed throughout the program and by the last session exceeded the expectations for appropriate responding for all 11 target interview questions. Generalization was built into the program where each week the meeting space changed and the primary interviewer changed to ensure that the participant could apply these skills in a variety of interviews, with unfamiliar adults in unfamiliar settings.

Discussion/Conclusions

Utilizing a treatment package which included BST, worksheets + video modeling, and mock interviews resulted in a successful outcome for the participant.

A limitation of this study is that it is unclear if one aspect of the treatment package produced the obtained results, making the other aspects redundant or if the combination of the different aspects together produced the results. Future research should look into each aspect individually, in regards to interview training for teens with Asperger's.

Another limitation was that this study did not address other interview skills such as body language or behaviours which may be a hindrance during interviews such as mumbling, stereotypy, eye contact, etc. Future studies may wish to include training body language on non-verbal cues.

Psychosocial Outcomes in Adoescents With Autism Who Received Intensive Behavioural Intervention as Young Children

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Objectives

Intensive Behavioural Intervention (IBI) has been shown to result in increased cognitive and adaptive skills in many efficacy studies (e.g., Lovaas, 1987), as well as in community effectiveness studies in Ontario (Freeman & Perry, 2010; Flanagan, Perry, & Freeman, 2012; Perry et al., 2008). However, clinical wisdom suggests that even children with "best outcomes" (e.g., average IQ) may struggle in social situations and may experience emotional difficulties, especially anxiety. Long-term follow-up studies of children who received IBI in their early years are very rare and have focused on IQ, adaptive skills, language, and school placement as outcome variables. Social-emotional-behavioural status has rarely been assessed, although children from the original Lovaas cohort were reported to show no socialemotional difficulties 5 years after treatment (McEachin, Smith, & Lovaas, 1993). Research on "optimal outcome" children with autism (independent of the IBI literature), also suggests some children with autism subsequently function in the normal range on various measures including social-emotional-behavioural ones (Kelley, Nagles, & Fein, 2009), and these children are more likely to have received IBI compared to a group with "high functioning autism." The purpose of this study was to conduct a thorough assessment of the social-emotional-behavioural functioning of a small group of adolescents who received IBI as young children in Ontario, as part of a larger follow-up study. We were interested in the presence of clinically significant difficulty (scores in the Clinical or Borderline range) in various psychosocial domains and the degree of consistency across respondents (parents, teachers, youth).

Methods

The sample includes about 13–15 youth (current age 14–17 years) who had received IBI when they were roughly 3 to 5 years old and who had good outcomes (improvements on cognitive, adaptive, and autism severity measures) in a previous short-term follow-up study (Prichard & Perry, 2010). Three measures were used from the Achenbach System of Empirically-Based Assessment (Achenbach & Rescorla, 2001), which is a well-established approach to measuring social-emotional-behavioural problems in children and youth, along the broad dimensions of Internalizing (e.g., anxiety, depression) and Externalizing (e.g., aggressive, hyperactivity, noncompliant) disorders. These were: the Child Behavior Checklist (CBCL; parent report), the Teacher Rating Form (TRF); and the Youth Self-Report (YSR) for adolescents aged 11–18 years who were able to complete it.

Results

Data are being coded and analysed currently. The majority of the sample analyzed todate were rated as having no scores in the Clinical range. Only three of 13 cases examined so far obtained scores in the Clinical range for Anxiety/Depression or Withdrawn/Depressed. Ratings were generally consistent across the three respondents.

Discussion/Conclusions

Results, to date, suggest that at least some children with autism who receive early IBI and respond well, go on to demonstrate social-emotional-behavioural profiles that are in the average range.

Exploring the Impact of Enhancing Social Media Skills on Experiences of Social Inclusion Among Youth With and Without Disabilities

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Objectives

Inclusion has been defined as the belief that everyone is equally welcomed as a member of a community (Siperstein, Parker, Norins Bardon, & Widaman, 2007; Whitehurst & Howells, 2006). Despite the importance of friendship and its impact on quality of life, youth with disabilities do not experience the same degree of social inclusion as their peers without disabilities. Many youth with disabilities have fewer friends, experience more difficulty in socializing with peers, and face barriers (e.g., physical inaccessibility, negative social attitudes) that impact their participation in communities (Soderstrom, 2009; Shakespeare, 2006). Also, as this age cohort prepares to transition from the formal educational system, they begin to look for opportunities to participate within their communities and develop new friendships. Little is known about how social media may enhance their social participation and inclusion. The purpose of this study was to explore the impact of a social media skills program on experiences of social inclusion among youth with and without disabilities. Specifically, this study addressed the following research questions: (1) What does social inclusion mean to youth with and without disabilities? (2) How does the use of and access to social media tools impact social inclusion for youth with and without disabilities? (3) What are the potential benefits and challenges to using social media tools for youth with and without disabilities?

Methods

A qualitative case study was used to explore the perspectives about social inclusion and the development of social media skills among youth with and without disabilities. Participants completed a survey at three points in the study, prior to the beginning of the social media program, at the end of the social media program, and 2 months following completion of the program. The 20 participants (n = 11 male, n = 8 female) ranged in age from 12 to 24 years, and included 15 individuals with various physical and/or developmental disabilities and five individuals without disabilities.

Results

Preliminary findings suggest that most participants with and without disabilities routinely use and value the use of social media for social interactions, especially with friends. However, they did not increase their use of social media tools upon completion of the social media program. Yet, participants revealed an increased understanding of safety concerns associated with social media use and described how they social media is an crucial means by which to stay connected with friends and family, especially those they do not see in person on a regular basis.

Discussion/Conclusions

Participants revealed a more critical and reflective approach to their social media use, which suggests that the inclusive program may have prepared them to engage in more positive social behaviours. Although the findings do not specifically indicate increased friendships, it is possible that by becoming more experienced in their use of social media tools, the youth with disabilities may become less socially isolated. Further study is needed to explore the long term impact of a social media program and follow the youth as they continue to mature.

Informational Support for Women With Intellectual and Developmental Disabilities During Pregnancy: A Qualitative Study

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Objectives

Women with intellectual and developmental disabilities (IDD) are a high-risk population during pregnancy and childbirth, yet there are fewer accessible resources available for this population. Where resources do exist, there is a lack of research on their effectiveness from the perspectives of the women receiving the services; this study aims to start discussion among the research community on this topic. This study's objectives are to describe the knowledge women with intellectual and developmental disabilities (IDD) have concerning pregnancy and childbirth, sources of informational support, and barriers and facilitators to obtaining informational support.

Methods

This was a qualitative study that used a descriptive case study framework. Data for this study originated from a larger project on social support for women with IDD during pregnancy. The participants for the current study were two women with IDD who were residing in Ontario, were 18 years or older, and had given birth at least once in the five years prior to the interview. Data were collected using semi-structured interviews that included demographic information, a social circles task, and an adaption of the Social Support Self-Report (SSSR). A content analysis framework was used to analyze the interview data. Data were coded and organized into matrices for each participant based on the study objectives.

Results

One participant actively pursued informational support opportunities during her pregnancy. She recognized signs of pregnancy, understood the dangers of substance-related behaviours while pregnant, and identified when she was in labour. Although she received support from formal and informal sources, the majority came from formal sources (e.g., doctors and prenatal classes). She found that having supportive caregivers present, having autonomy, and receiving individually tailored information facilitated informational support. The main barrier she experienced was receiving unhelpful information. Our other participant also had an active interest in acquiring pregnancy-related knowledge, recognized her nausea as a sign of pregnancy, acknowledging the dangers of ingesting substances while pregnant, and realizing when she was in labour. Her main source of informational support was also from formal support services. The facilitators this participant reported were the presence of supportive caregivers and having medical professionals relay individually tailored information. Some barriers she experienced were a lack of autonomy and receiving unhelpful information.

Discussion/Conclusions

In this study, we found that our participants had interest in acquiring pregnancy-related knowledge and received informational support from both formal and informal sources. Key facilitators and barriers to obtaining informational support included the method of information transference, the presence of supportive caregivers, and the woman's level of autonomy. This study contains two main limitations. First, this is an exploratory study using data from two individuals; their experiences may not be generalizable to all mothers with IDD. Second, because data were collected for another purpose, there may be important aspects of informational support that were not discussed by the participants. However, as this is exploratory research, these findings will be able to inform future research projects, ultimately improving policies and creating resources more tailored to be more accessible for women with IDD.

Improvement in Mindful Parenting Following Participation in Cognitive Behavioural Therapy for Children With Autism Spectrum Disorder

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Objectives

Parents of children with autism spectrum disorder (ASD) can experience greater stress compared to parents of typically developing children (Estes et al., 2009). The use of a mindful parenting approach, which refers to intentionally and non-judgmentally paying attention to one's child and compassionately reflecting on one's parenting ability, has been shown to reduce stress in parents of children with ASD, improving their ability to parent effectively (Cachia, Anderson & Moore, 2016). There is evidence that parent involvement in child-focused therapy may indirectly improve parent's own functioning (Reaven et al., 2015), though parent outcomes are rarely measured in this context. The aim of the current study was to examine parent changes in mindful parenting, and associations with child outcomes, following participation in CBT for children with ASD.

Methods

Participants included 40 children with ASD (92.5% male), 8–12 years of age (M = 9.65, SD = 1.27) with at least average IQ (M = 104.08, SD = 14.45), and their caregivers (75% mothers), involved in a randomized controlled trial targeting child emotion regulation, comparing treatment to a wait-list control group. Data was collected one week prior to intervention, and one week following intervention completion. Mindful parenting was assessed using the *Interpersonal Mindfulness in Therapy Scale* (Duncan, 2007), which has subscales of awareness/attention, non-judgment and non-reactivity. Child psychopathology and adaptive skills were measured via parent report on the *Behavior Assessment System for Children, Second Edition* (Reynolds & Kamphaus, 2004).

Results

Post-intervention, there were significant improvements in the non-judgment subscale ($t(36) = -2.48$, $p = .02$). Controlling for baseline scores, parents in the treatment group improved relative to the waitlist group on total mindful parenting, $F(1,36) = 4.18$, $p = .048$. Finally, parent improvement in non-judgment was associated with improvement in child emotional selfregulation ($r = .43$, $p = .01$). Data collection is ongoing, and 15 additional child-parent dyads are expected to have completed the trial by April 2016.

Discussion/Conclusions

Findings will be discussed in relation to optimally involving parents in therapy for children with ASD to promote positive parent and child outcomes.

References

Cachia, R. L., Anderson, A., & Moore, D. W. (2016). mindfulness, stress and well-being in parents of children with autism spectrum disorder: A systematic review. *Journal of Child and Family Studies*, *1*, 1–14.

Duncan, L. G. (2007). Assessment of mindful parenting among parents of early adolescents: Development and validation of the Interpersonal Mindfulness in Parenting scale. Unpublished doctoral dissertation. Pennsylvania State University: University Park, PA.

Estes, A., Munson, J., Dawson, G., Koehler, E., Zhou, X.-H., & Abbott, R. (2009). Parenting stress and psychological functioning among mothers of preschool children with autism and developmental delay. *Autism*, *13*, 375–384.

Reaven, J., Washington, L., Moody, E. J., Stern, J. A., Hepburn, S. L., & Blakeley-Smith, A. (2015). Examining the relationship between parental anxiety and treatment response in children and adolescents with autism spectrum disorder and anxiety. *Journal of Autism and Developmental Disorders*, *45*, 2464-2473.

Reynolds, C. R., & Kamphaus, R. W. (2004). *Behavior Assessment System for Children, Second Edition (BASC-2)*. Bloomington, MN: Pearson Assessments.

An Investigation of Sibling Relationships: A Comparison of the Stresses and Uplifts of Adolescents of Siblings With Fetal Alcohol Spectrum Disorder and Down Syndrome

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Objectives

Having a child with a disability has a significant impact on the family. Though a large focus of literature highlights the stressors of parents who have a child with a developmental disability, siblings experience similar stressors (Gold, 1993; McHale & Gamble, 1989; Ross & Cuskelly, 2006). Little exploration has looked at the stress and behavioural relationship shared between siblings who have been impacted by living with a brother or sister with developmental disabilities, more specifically fetal alcohol spectrum disorder (FASD) and Down syndrome (DS). Past literature has suggested a negative experiential impact on siblings with a brother/sister with DS (e.g., Cuskelly & Gunn, 1993; McHale & Gamble, 1989). Researchers see that children of siblings with DS tend to have positive perceptions of their brother/sister (Baumann et al., 2005; Graff et al., 2012; Kaminsky & Dewey, 2001). There is little to no literature discussing sibling relationships and experiences of living with a child diagnosed with FASD, but as suggested by Olsen et al.'s (2009) research with parents of individuals with FASD, children may experience negative effects of living with a sibling with FASD. Because DS and FASD have a variety of behavioural characteristics, sibling experiences may vary in regards to how care is provided and followed. Also, how siblings adapt to specific behaviours may have an influence on sibling relationships. This study compares adaptation to stress amongst adolescents who have a brother or sister with DS or FASD. The uplifts and hassles reported by adolescents who have a sibling with DS or FASD are also compared.

Methods

Participants are male and female adolescent siblings (12 to 18 years of age) of biological or adoptive background without a developmental disability or intellectual disability. Participants must have a brother or sister with either DS or FASD. Participants will fill out two questionnaires. The Sibling Daily Hassles and Uplifts Scale assesses the frequency and status of hassles (a disruption or interference; i.e., behavioural outbursts or inconvenient appointments) and uplifts (positive events; i.e., sharing a toy) experienced by a sibling (Giallo & Gavidia-Payne, 2006). The Sibling Inventory of Behaviour Scale assesses sibling relationships in regards to behaviour expressed towards a sibling with either FASD or DS (Hetherington et al., 1999; Schaefer & Edgerton, 1981).

Results

The results of this study are pending. Data collection is still in process and will be completed between the months of January and February, 2016. Based on research with parents of individuals with FASD, it is anticipated that adolescent siblings who have brothers or sisters with FASD will have more sibling related stressors in comparison to brothers or sisters who have a sibling with DS.

Discussion/Conclusions

The results of this study will provide a greater understanding of sibling relationships, specifically adolescents who have siblings with either DS or FASD. Implications of this study include increased awareness of sibling stresses to government agencies, disability related organizations, and practitioners, with the hope that increased supports will be provided to families raising children with either DS or FASD.

Group Interventions for Parents of Adults With Intellectual and Developmental Disabilities: Group Interest and Participation

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Objectives

Parents of adult with intellectual and developmental disabilities (IDD) often experience high levels of stress and poor psychological and physical health outcomes. Despite this, very few interventions exist to help these parents. To address this issue, we offered parents free intervention groups. Parents were randomly assigned to either a mindfulness group or to a support and information group. The aim of this poster is to describe what parents hoped to gain from these groups and determine whether initial group interest affected parent's subsequent group participation.

Methods

Flyers advertising the groups were circulated to parents of adults with IDD through Developmental Services Ontario, Toronto region (DSO). As part of registration, 54 parents completed a questionnaire that asked about what they hoped to gain from the groups as well as whether they had a preference for one group or another. Parent hopes were qualitatively coded by two raters. Parents were also coded in terms of group preference once assigned to groups, into three mutually exclusive categories: open-interest, direct-match, no-match. Parents in the open interest group did not have a specific interest or were interested in both groups. Parents in the direct-match group were placed in the group that they were interested in initially. Parents in the no-match group were placed in a group that did not match their initial interest.

Results

In terms of what parents were hoping for by participating in groups, interest in gaining help for themselves was expressed by 28 parents (51.9%). For example, one such parent hoped to learn "a new way of relaxing and controlling my feelings." Nineteen parents (35.2%) were interested in getting help for their child. As stated by one parent, she hoped to learn more about "services available to improve daughter's quality of life." Fourteen parents were interested in making social connections (25.9%) with other parents. One parent stated that she wanted to "connect with other parents and share ideas."

Slightly more than half of parents had an open interest (53.7%) and the rest of the parents were split between a preference for the information group (27.8%) and the mindfulness group (18.5%). Of the 44 parents who were assigned to a group following survey completion, 13 parents were assigned to a group that matched their preference, and eight parents were assigned to one that did not match their preference. Regardless of whether or not parents were in groups that matched their preference, most parents attended the majority of sessions. There was one drop out in both the direct-match and non-match group. For those parents that completed satisfaction questionnaires and were in the non-match group, it did not appear that they were unsatisfied with the intervention they received.

Discussion/Conclusions

Results reveal that parents of adult with IDD are interested in gaining a wide variety of supports from parent groups, including helping themselves, their child and making social connections. Although some parents may have initial specific group interests, our results suggest that these interests do not necessarily impact participation and can be subject to change.

"He's Not Leaving": Families Raising Adopted Adult Children With FASD in Ontario

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Objectives

The transition from emergent adulthood to adulthood can be a period of increased challenges for individuals with disabilities and their parents (Arnett, 200; Kim & Turnbull, 2004). Parents' goals for their children focus on independent living, relationships, and employment (Henninger & Taylor, 2014). Children's transition into adulthood can impact a family's core functions regarding economic support and nurturance, which is considered a crisis in adaptation literature, and can result in significant perceived parental stress (Patterson, 2002). The majority of families raising children with fetal alcohol spectrum disorder (FASD) appear to be nonbiological families (Rowbottom, Merali, & Pei, 2010), but limited research has been conducted on the experience of adoptive families raising adult children with FASD in Ontario (Watson, Coons, & Hayes, 2013). Parents can act as protective factors for the development of their children's secondary disabilities and those who are having difficulty adapting to their child's transition into adulthood may require additional services (Streissguth et al., 2004). Therefore, the purpose of the present study is to identify the experiences of parents of adult adoptees with FASD, and to examine their needs as they are adapting to their children's transition into adulthood.

Methods

Twenty adoptive parents with at least one adult child with FASD were recruited through FASD support groups across Ontario. Using a convergent parallel mixed-methods design, informed by the Family Adjustment and Adaptation Response model (Patterson & Garwick, 1994), parents completed the Questionnaire on Resources and Stress – Friedrich's version (QRS-F) and a semi-structured interview (Friedrich, Greenberg, & Crnic, 1983). To gain a better understanding of parents' experiences, the interviews were analyzed using Interpretative Phenomenological Analysis (Lyons & Coyle, 2010). The QRS-F was analyzed using descriptive statistics. The questionnaire data and interview themes were then compared to triangulate interview analysis findings. Factors impacting family adaptation (i.e., capabilities and resources) were examined.

Results

Three major themes emerged through the IPA analysis that described areas of need for adoptive families: transition into adult housing, managing finances, and individual characteristics. Parents reported experiencing stress due to a lack of adult housing for their children, difficulty accessing adult services, and a lack of work environments that can support individuals with FASD. The QRS-F results validated those findings, indicating that parents were on average experiencing moderate levels of perceived stress ($M = 24.6$, $SD = 9.5$). The children were struggling with financial independence as well as making independent and responsible decisions, all of which pose barriers to the transition to adulthood. Fifty percent of participants' children exhibited behaviours consistent with emergent adulthood (e.g., financial dependence), even though they were over the age of 25 (i.e., the end of emergent adulthood).

Discussion/Conclusions

Providing parents assistance with the aforementioned issues will help balance the demands and capabilities related to their children's transition into adulthood, thereby facilitating parental adaptation. The results of this study will be used to inform Ontarian FASD formal and informal services of the unmet needs of families so that more tailored programs can be created to support families of adult children with FASD.

Maintenance of Memory Strategy Use in Children With Autism Spectrum Disorder (ASD)

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Objectives

In children with ASD, low levels of active strategy use, which can help in learning and memory situations, are frequently reported compared to typically developing peers. Prior research has shown that although children with ASD are able to to use memory strategies when taught, on follow up (e.g., two to three weeks later), they revert to low levels of strategy use observed before the training began. We sought to determine how increasing the depth of training would affect the maintenance of memory strategies. In this study the focus was on rehearsal strategies, or the repetition of key information to be learned.

Methods

Forty children (verbal mental age > 4 years) were given multiple training sessions. 20 of the children had a previous diagnosis of ASD and 10 of those had a verbal IQ of below 70 (i.e., met the criteria for intellectual disability). Among the 20 without ASD, 10 also had a verbal IQ below 70. Participants were asked to remember a series of cards with pictures in order (ball, chair, spoon, etc.) and place matching cards in the appropriate order to indicate recall. During the strategy training phase, an examiner modelled appropriate rehearsal strategy use and encouraged the child to do the same. Training sessions continued until the child used rehearsal strategies spontaneously without prompting from the examiner (up to a maximum of five times). A follow-up session two to three weeks later tested maintenance and generalization of strategy use.

Results

Participants with a verbal IQ of below 70 (with ASD and without) required more than double the amount of training sessions (27.5 vs. 12.5). Further, 80% of the ASD group used rehearsal strategies at the follow-up (compared to only 35% before training; $t(19) = 2.88$, $p < 0.01$). Among those who retained the use of memory strategies, serial recall of the pictures increased to 96%, but for those who abandoned the strategy, recall did not change (67% to 64%).

Discussion/Conclusions

Children with ASD can be taught to use rehearsal strategies spontaneously, but in order to maintain these gains in strategy use, and subsequently better recall, multiple training sessions are required for the child to achieve spontaneous strategy use. The demonstrated maintenance of training gains and generalization to new materials were of particular note. The procedures can be readily adapted to educational settings for improving the learning and retention of children with ASD.

A Focus on Developmental Strength Capacity: A 10-Year Literature Review of Well-Being and Autism Spectrum Disorder

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Objectives

Autism spectrum disorder (ASD) literature is often conceptualized as focusing mainly on pathology and problem-oriented behaviours. Furthermore, interventions for this population have focused on correcting deficits. In order to promote positive strengths in children and adults with ASD and their ability to thrive in their environments, there needs to be a greater integration of strength-based approaches in different areas of ASD research to optimize developmental outcomes for children. In the last four decades of neurodevelopmental disabilities research, there has been a trend that indicates an increase in a strength focus and a decrease in a deficit focus (Shogren et al., 2006). To date, no one has examined whether a shift toward a strength capacity focus has occurred in the ASD research literature. Because ASD is a life long developmental disorder, changes can occur in clinical presentation over time. Therefore, this study is an investigation of whether or not a strength capacity focus has increased in the last decade across developmental age groups. The purpose of this content analysis is to establish whether there has been a trend of positive, strength-related research in the ASD literature in the past 10 years. Secondly, the study will also examine whether there is a relationship between positive, strength research and different developmental age groups. A positive trend may reflect increases in early diagnosis, intervention, and supports for family climate, which lead to better well-being outcomes for ASD children.

Methods

Research studies from five well-known ASD journals were coded by four coders to determine the proportion of studies focusing on developmental wellbeing from 2004 to 2014. The articles were searched by issue to ensure they were sampled evenly across each publication year. Between 25% to 33% of articles from each journal issue will be randomly selected. Articles were coded along several criteria including: a main focus on well-being; the perspective (strengths, deficits or mixed); and developmental age group.

Results

Currently, 80% (*n* = 924) of the articles have been coded. Coding will be completed by January, 2015. Current results illustrate that 157 articles focused on well-being and among these articles most had a deficit (45.2%) or mixed (42.7%) perspective and few articles demonstrated a strength perspective (12.1%). Once coding is completed, we will report trends in developmental age groups.

Discussion

The findings of this study will reveal trends with respect to the study of well-being and developmental age groups in ASD literature, and inform future areas for research and practice. Trends associated with the amount of strength-capacity research and developmental age groups may reflect increases in early diagnosis, early intervention and supports for family climate.

An Updated Review of the Impact of March Break and Summer Program Funding on Caregivers of Children With Autism

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Introduction

Those raising children with autism spectrum disorders (ASDs) face unique challenges, with the severity of symptomatology varying within a wide range of behavioural, communication and social skill levels. Consequently, research indicates that parents of children with ASDs report higher levels of stress than parents of those with other developmental disabilities or parents of typically developing children (Estes et al., 2009; Weiss et al., 2012). Support programming such as respite service are often cited as major factors that aid to reduce parental stress (Cowen, & Reed, 2002); however, the financial burdens placed on families seeking such services can be overwhelming. Autism Ontario is a service provider and family advocacy centre for individuals and families affected by ASD in Ontario, Canada. In addition to other services, Autism Ontario offers families the opportunity to apply for funding that can subsidize children to attend external programs during March and summer breaks.

Objectives

The goal of the present study was to examine the impact of funding for ASD support programming and its perceived effect on parental stress levels. Additionally, this study will explore how funding was utilized by families, what programs children participated in, what skills were obtained by children with ASD, and most importantly, how these factors relate to parent's levels of stress.

Methods

An online survey was circulated to parents who had applied for March or Summer Break program funding from 2007–2011. A total of 695 caregivers of children with ASD completed the survey, 477 of whom indicated they had received either March or Summer break funding at least once during the 2007–2011 period. The survey obtained feedback related to basic demographic information, languages spoken by the families, years of Canadian residence, whether parents felt a reduction in stress, and how funding impacted their decision to enroll children in camps or seek respite help. Parents were also asked to describe the type of program in which their child participated (e.g., mainstream day or residential camps, autism-specific camps) as well as the length of time spent in each program. Respondents were asked if their child had made observable improvements in areas such as self-regulation, aggression, stereotypical behaviour, improved communication, and social interaction.

Results

Support workers accounted for over 25% of funding expenditure with 50% of families placing their child in programs lasting 5–7 days. Importantly, 31% of respondents stated they would not have been able to take advantage of support programs without subsidization. Approximately 78% of caregivers reported a significant decline in stress from their child's program participation. Finally, results revealed a wide-spread improvement for ASD children in social skills and increased interaction with others.

Discussion/Conclusions

The current findings highlight that the funding provided by agencies, such as Autism Ontario, offer a critical financial opportunity to those families who would not otherwise be able to afford these support services. Access to supplemental programming, such as residential and day camps, is reported to have significantly benefitted families and their children with ASD, shown by an improvement in skills and significant reduction in parent's stress.

Knowledge of the Effects of Gestational Alcohol Consumption and FASD in a Canadian Sample

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Objectives

When alcohol is consumed during pregnancy, it can lead to irreparable damage in the developing fetus (Walker et al., 2005). Excessive alcohol consumption by women during the gestational period is the leading cause of fetal alcohol spectrum disorders (FASD; Walker et al., 2005). Individuals with FASD experience common symptoms such as growth deficiencies, facial anomalies, skeletal deformities, speech and language deficits, motor dysfunctions, learning and behavioural difficulties, and sleeping and eating irregularities (Walker et al., 2005). FASD is one of the more common preventable developmental disabilities and one of the most common preventable causes of developmental disability (Townsend, Hammil, & White, 2015). In addition to the social and physical costs to the individuals, FASD also has a high cost to society. In the US, the median adjusted costs to society are approximately $3.6 billion (Lupton et al., 2004) and data for Canada is very similar with the National total ringing in at approximately $4 billion (Stade, Ungar, Stevens, Beyen, & Koren, 2007).

When asked, the majority of women know that alcohol is harmful to the developing fetus and should not be consumed during the gestational period (Peadon et al., 2010). Though people seem to realize that alcohol can be harmful during pregnancy, there is considerable confusion when it comes to what a “safe” amount is. Environics Research Limited (2000) found that for the most part, people were divided on their views of a “safe” amount of alcohol; for example, 47% of Canadians felt that drinking two alcoholic drinks on two or three occasions during pregnancy is safe, leaving 52% who disagree. As there is no amount of alcohol that has been proven to be safe, this is a very concerning finding (Beckett, 2011). Within the sample there were differences based on gender and province; men tended to be more likely to endorse higher levels of “safe” consumption during pregnancy, as were individuals from Quebec (Environics Research Limited, 2000). The purpose of this study is to gain knowledge of Canadians’ knowledge regarding alcohol consumption during pregnancy.

Methods

Participants will be Canadian men and women who are 18 years old and over. Participants will be asked to complete an online questionnaire regarding their knowledge of the effects of alcohol consumption during the gestational period (Environics Research Group Limited, 2000). Using this questionnaire will allow us to gain better insight into the knowledge of Canadians regarding alcohol consumption during pregnancy and to compare findings to the previous study.

Results

The results of this study are pending as the data collection will be undertaken during the months of February to April 2016. Based on the results of the Environics Research Group (2000) study, we expect to find that individuals will be confused about the specific harms and mechanisms of harm caused by alcohol.

Discussion/Conclusions

This study is important as it will contribute to the literature surrounding knowledge of the risks of drinking during the gestational period and FASD in Canada. In addition to the practical application of this research in the public health and medical fields, the current study aims to add much needed information to the literature regarding partner alcohol use and maternal alcohol usage patterns.