

Developmental and Intellectual Disabilities Research

TRO Research Hub: TR-Related Literature

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Relationships between recreation and levels of self-determination for adolescents and young adults with disabilities

McGuire, J., & McDonnell, J. (2008). Relationships between recreation and levels of self-determination for adolescents and young adults with disabilities. *Career Development for Exceptional Individuals*, 31(3), 154-163. doi:10.1177/0885728808315333

Self-determination continues to be a focus for secondary students who have intellectual disabilities. This study examined the relationship between recreation and self-determination for adolescents and young adults with intellectual disabilities. Students from secondary and post—high school special education programs tracked their involvement in recreation for a 2-week period. Then students were given the Arc's Self-Determination Scale. The results establish a predictive relationship between recreation and self-determination indicating that increased amounts of time adolescents and young adults spend actively involved in recreation were found to be predictive of higher levels of self-determination. The findings support that recreation may be a useful strategy for enhancing self-determination skills and that self-determination can be increased through experiences, not just through teaching explicit skills.

Keywords: transition, recreation, self-determination, special education

Social skills interventions for children with Asperger's syndrome or high-functioning autism: A review and recommendations

Rao, P. A., Beidel, D. C., & Murray, M. J. (2008). Social skills interventions for children with Asperger's syndrome or high-functioning autism: A review and recommendations. *Journal of Autism and Developmental Disorders*, 38(2), 353-361. doi:10.1007/s10803-007-0402-4

This paper reviews the literature examining social skills training (SST) programs for youth with AS/HFA, with an emphasis on critically evaluating efficacy and highlighting areas of future

research. The review highlights the disparity between SST programs described in the extant literature, including lack of a universal definition of social skills, various levels of intensity and duration of treatment, divergent theoretical backgrounds, and variety in services provided in clinic or classroom settings. Overall, it is clear that, despite their widespread clinical use, empirical support for SST programs for children with AS/HFA is minimal at this time. Based on this critical review, a “roadmap” for future research, consistent with recommendations put forth by a leading group of autism researchers, is presented.

Keywords: Asperger’s syndrome, high-functioning autism, social skills, intervention

Serious leisure and people with intellectual disabilities: Benefits and opportunities

Patterson, I., & Pegg, S. (2009). Serious leisure and people with intellectual disabilities: Benefits and opportunities. *Leisure Studies*, 28(4), 387-402. doi:10.1080/02614360903071688

Can people with intellectual disabilities use serious leisure activities in a similar context to people without disabilities as a substitute for their paid work? In the past, western societies have tended to devalue people with disabilities, and as a consequence they were less likely to have valued social roles through paid work. However, for many people with disabilities, serious leisure should be valued as it encourages active participation in either formal group structures, or informal networks of devotees, for the sharing of common leisure interests as an amateur, hobbyist or volunteer. This study has used a qualitative methodology incorporating semi-structured interviews with a small purposive sample of adults with disabilities who were living independently in the community. They were selected as prospective respondents by key staff in several disability service agencies in Brisbane, Australia, because of their successful participation in community-based leisure activities that were classified as ‘serious’. The results of this study found that people with disabilities have the ability to participate in serious leisure activities and to successfully engage at such a level so as to enable them to develop increased levels of confidence, skills and self-esteem.

Keywords: serious leisure, people with disabilities, benefits, leisure skills, self-esteem

Exploring the social competence of students with autism spectrum conditions in a collaborative virtual learning environment – the pilot study

Cheng, Y., & Ye, J. (2010). Exploring the social competence of students with autism spectrum conditions in a collaborative virtual learning environment – the pilot study. *Computers & Education*, 54(4), 1068-1077. doi:10.1016/j.compedu.2009.10.011

Social reciprocity deficits are a core feature of the autism spectrum conditions (ASCs). Many individual with ASCs have difficulty with social interaction due to a frequent lack of social competence. This study focuses on using a virtual learning environment to help the deficiencies of social competence for people with ASCs, and to increase their social interaction. Specifically, it primitively explores social competence in collaborative virtual learning environment (CVLE) systems, and behavioral performance in social and cognitive interactions. Thus, this CVLE-social interaction system involves a 3D expressive avatar, an animated social situation, and verbal as well as text-communication. A preliminary empirical study involved CVLE-social interaction systems. Three participants who had been diagnosed with ASCs were conducted using a multiple baseline research for evidence of improved social competence through usage of the system. The experimental study consisted of 17 days; and the results showed that using the CVLE-social interaction system had significant positive effects on participants' performance, both within the CVLE-social interaction system and in terms of reciprocal social interaction learning.

Keywords: Collaborative virtual learning environment, 3D Expressive avatar, social competence, Autism spectrum conditions

The efficacy of an aquatic program on physical fitness and aquatic skills in children with and without autism spectrum disorders

Pan, C. (2011). The efficacy of an aquatic program on physical fitness and aquatic skills in children with and without autism spectrum disorders. *Research in Autism Spectrum Disorders*, 5(1), 657-665. doi:10.1016/j.rasd.2010.08.001

This study evaluated the efficacy of a 14-week aquatic program on physical fitness and aquatic skills for children with autism spectrum disorders (ASD) and their siblings without a disability. Children with ASD (n = 15) and their siblings (n = 15), between 7 and 12 years (8.55 ± 2.19 years) participated. In the first 14-week phase, 14 children (group A: ASD, n = 7; siblings, n = 7) received the aquatic program while 16 children (group B: ASD, n = 8; siblings, n = 8) did not.

The arrangement was reversed in the second phase of another 14 weeks. Both groups continued their regular treatments/activities throughout the study. Improvements were seen in aquatic skills and physical fitness components except subtest body composition for group A and group B subsequent to aquatic program. The results provide evidence that intervention can be developed to promote motor skills and physical fitness components for children with ASD and their siblings.

Keywords: Autism Spectrum Disorders, aquatic program, physical fitness, motor skills

Sensory integration therapies for children with developmental and behavioral disorders

Zimmer, M., & Desch, L. (2012). Sensory integration therapies for children with developmental and behavioral disorders. *Pediatrics*,129(6), 1186-1189. doi:10.1542/peds.2012-0876

Sensory-based therapies are increasingly used by occupational therapists and sometimes by other types of therapists in treatment of children with developmental and behavioral disorders. Sensory-based therapies involve activities that are believed to organize the sensory system by providing vestibular, proprioceptive, auditory, and tactile inputs. Brushes, swings, balls, and other specially designed therapeutic or recreational equipment are used to provide these inputs. However, it is unclear whether children who present with sensory-based problems have an actual “disorder” of the sensory pathways of the brain or whether these deficits are characteristics associated with other developmental and behavioral disorders. Because there is no universally accepted framework for diagnosis, sensory processing disorder generally should not be diagnosed. Other developmental and behavioral disorders must always be considered, and a thorough evaluation should be completed. Difficulty tolerating or processing sensory information is a characteristic that may be seen in many developmental behavioral disorders, including autism spectrum disorders, attention-deficit/hyperactivity disorder, developmental coordination disorders, and childhood anxiety disorders. Occupational therapy with the use of sensory-based therapies may be acceptable as one of the components of a comprehensive treatment plan. However, parents should be informed that the amount of research regarding the effectiveness of sensory integration therapy is limited and inconclusive. Important roles for pediatricians and other clinicians may include discussing these limitations with parents, talking with families about a trial period of sensory integration therapy, and teaching families how to evaluate the effectiveness of a therapy.

Keywords: sensory integration, sensory processing, sensory integration therapy

Using photovoice to listen to adults with intellectual disabilities on being part of the community

Schleien, S. J., Brake, L., Miller, K. D., & Walton, G. (2013). Using photovoice to listen to adults with intellectual disabilities on being part of the community. *Annals of Leisure Research*, 16(3), 212-229. doi:10.1080/11745398.2013.828364

Imagine if you were offered a glance through the lens of a very unique photographer: a member of your community who has an intellectual or developmental disability (ID/DD). A community-based participatory research method, Photovoice, was used to enable seven individuals with ID/DD the opportunity to document their lives through the use of photography and discuss their interests, hopes and dreams. Specifically, this methodology provided them with opportunities to share their concerns about their community access and communicate with the larger community using photographs and the collective ideas of the group. Common themes were revealed among the participants, including their hidden talents, community membership and sense of belonging, consumerism and making choices, desired independence, limited connections to the community and a desire to be treated as adults. Two themes – community membership and desire for independence – are expounded upon, as they appeared to be the most relevant to improving one's quality of life and greater self-determination.

Keywords: community access, community-based participatory research, inclusion, intellectual/developmental disability, Photovoice, self-advocacy

Inclusive leisure experiences of older adults with intellectual disabilities at a senior centre

Rosow-Kimball, B., & Goodwin, D. L. (2014). Inclusive leisure experiences of older adults with intellectual disabilities at a senior centre. *Leisure Studies*, 33(3), 322-338. doi:10.1080/02614367.2013.768692

Inclusive leisure is described as the extent to which people with and without impairments engage in leisure ventures together. The leisure experiences of four older adults with intellectual impairments, four 'mainstream' older adults and three staff members from a senior citizen recreation centre were captured using the interpretive phenomenological research methods of focus group interviews and field notes. Self-determination theory provided the conceptual framework for the study and facilitated the interpretation of the findings. Thematic analysis of the conversations revealed three themes with respective subthemes (a) shared leisure motivations, (b) expecting too much and (c) wanting even more. Although the mainstream older

adults and centre staff recognised a need for more inclusive activities, older adults with impairments expressed satisfaction with the inclusive nature of the centre. The challenges and successes of the inclusive nature of the community-based senior citizens centre have also been discussed.

Keywords: community inclusion, recreation, leisure, disability, case study

Policies supporting participation in leisure activities for children and youth with disabilities in Canada: From policy to play

Shikako-Thomas, K., & Law, M. (2015). Policies supporting participation in leisure activities for children and youth with disabilities in Canada: From policy to play. *Disability & Society*, 30(3), 381-400. doi:10.1080/09687599.2015.1009001

Children with disabilities are at risk for lower participation in leisure. This study maps and analyzes disability-related leisure policies in Canada. Policy mapping and analysis were performed based on scope, social justice, disability models, and use of evidence. Few policies use scientific evidence, and their scope in supporting participation is often limited to organized sports, transportation, and financial incentives/exemptions. Few policies exist to support leisure promotion for children with disabilities. Action plans, benchmarking, and uptake measurement are rarely identified. Research-based evidence can be used to support socially-just policies to promote participation in leisure. Families should be able to identify mechanisms to guarantee access to their rights. Researchers, service providers, and families can use this framework of policy mapping and analysis to identify gaps where evidence can support policy development, to use these policies where services are needed, and to foster participation of children with disabilities in leisure.

Keywords: leisure, policy, childhood disability, participation

Effects of therapeutic recreation on adults with ASD and ID: a preliminary randomized control trial

García-Villamizar, D., Dattilo, J., & Muela, C. (2016). Effects of therapeutic recreation on adults with ASD and ID: a preliminary randomized control trial. *Journal of Intellectual Disability Research*, 61(4), 325-340. doi:10.1111/jir.12320

The purpose of this research was to examine effects of a therapeutic recreation (TR) program designed to increase executive function (EF), social skills, adaptive behaviours and well-being of adults with autism spectrum disorder (ASD) and intellectual disability (ID). A preliminary pre-test, post-test randomized control group experimental design was used to measure effects of a 40-week TR program designed to increase EF (TR-EF). The TR-EF used instructional electronically based games delivered during 200 1-h sessions (5/week). Participants (experimental group, $n = 19$; wait-list group, $n = 18$) were evaluated at baseline and 10 months later. There was a positive and direct impact of the program on several EF and indirect effect on social skills, adaptive behaviour and personal well-being. Findings provide support for inclusion of EF enrichment as a way to enhance effects of TR interventions for adults with ASD and ID. Preliminary results of this study can be considered in planning TR services in the future. In addition to TR-EF program primary effects on EF, there were indirect benefits on adaptive behaviours, personal well-being and social skills.

Keywords: intellectual disability, therapeutic recreation, leisure, executive functions, adults with autism

Evaluation of functional communication training as a satiation procedure to reduce challenging behavior in instructional environments for children with autism

Fragale, C., Rojeski, L., O'Reilly, M., & Gevarter, C. (2016). Evaluation of functional communication training as a satiation procedure to reduce challenging behavior in instructional environments for children with autism. *International Journal of Developmental Disabilities*, 62(3), 139-146. doi:10.1080/20473869.2016.1183957

For individuals with challenging behavior, antecedent interventions such as modifying the motivation for the behavior have shown to be effective. In this study, we examined the effects of giving the participants the opportunity to continuously request tangible items (e.g. toys and activities) prior to instruction to determine if allowing them to satiate on the item would serve as an effective intervention to reduce challenging behavior maintained by access to the items. Functional analyses identified that access to tangible items maintained the challenging behavior of four children with autism spectrum disorder. The children were then trained using Functional Communication Training (FCT) to request the items. Prior to 15 mins academic and/or functional skill instructional sessions, participants were exposed to either an FCT session and allowed to request the tangible items or did not receive an FCT session. The no FCT condition consisted of the child's typically scheduled activities, without access to the preferred items maintaining challenging behavior for at least one hour prior to instruction. Following the FCT or

no FCT conditions, we measured challenging behavior and academic engagement during 15-min sessions of one-on-one instruction. When instruction was preceded with FCT as a satiation intervention, we observed lower levels of challenging behavior and higher levels of academic engagement compared to no FCT conditions for two of four participants. Overall, the results of this study appear to support the use of FCT as a viable satiation procedure to reduce challenging behavior in instructional settings.

Keywords: autism spectrum disorder, functional communication training, intervention, schools, motivating operation

Exploring leisure and retirement for people with intellectual disabilities

Ellison, C. J., & White, A. L. (2017). Exploring leisure and retirement for people with intellectual disabilities. *Annals of Leisure Research*, 20(2), 188-205.
doi:10.1080/11745398.2015.1122535

The present study explored the retirement and leisure experiences and perceptions of 31 people with intellectual disabilities living in community accommodation, as well as the perceptions of 21 significant others and 4 service providers in relation to the participants' retirement and leisure experiences. Participants were either currently participating in paid work of at least 15 hours per week or had retired from paid work of at least 15 hours per week. Participants' current participation in leisure activities, leisure aspirations for retirement, and experiences and perceptions of barriers to leisure participation were explored. Findings indicated that participants' current leisure participation predominantly reflected Stebbins' [1997. "Casual Leisure: A Conceptual Statement." *Leisure Studies* 16: 17–25] definition of 'casual leisure' and many activities were in-home based. However, most participants expressed the desire to participate in more leisure activities and reported that their current participation was restricted by a number of barriers. Restrictions were likely to be greater as people retired.

Keywords: Leisure, retirement, aspirations, participation, perceptions, intellectual disability