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Mini Me Yoga and Cerebral Palsy

What is Cerebral Palsy?

According to Cerebral Palsy (CP) is a lifelong condition that affects muscle control and movement, it is caused by an injury to the brain during and after birth (Scope, 2017; NHS, 2017). There are 3 types of CP:

- spastic cp
- dyskinetic cp
- ataxic cp

According to Scope (2017) children mainly have a combination of all three.

Barriers

Verschuren et al. (2012), Lindsay and McPherson (2012a), Davis et al. (2009) and Rocine et al. (2013) found that children with CP may experience social exclusion due to peers not including the child in activities. Staff may also be seen as barriers as they may be over protective and unsupportive. Lindsey and McPherson (2012) furthers this by stating that children with a disability are more likely to be bullied mainly from social exclusion. This links with Maslow's (1971) hierarchy of needs as children need to feel that they belong in order to develop. However, Lindsay (2016) and Tonkin et al. (2014) found that children may exclude themselves and decide that they cannot fit in with others because they are different. This is reflecting the Medical Model of Disability as the child is using the disability as a barrier (Emens and Stein, 2016; Anastasiou and Kauffman, 2011).

What is Mini Me Yoga?

Mini Me yoga is a fifteen minute activity that focuses on bringing joy to children's lives and considering how other people may feel. There are different elements to this including, breathing, meditation, water and the yoga (Mini Me Yoga, no date). The yoga element uses different positions which are shown on individual cards to help to do the positions and think about the other elements involved with the Mini Me Yoga. According to Mini Me Yoga (no Date) and White (2009) these positions are flexible and inclusive to all children.

Galantino et al. (2008) found that yoga can be introduced in schools and settings to improve overall health and increase fine and gross motor skills for children with CP.

Mini Me Yoga Continued

However, Kaley-Isley et al. (2010) suggest that in a school or setting there would be less one-to-one instruction which children with cp may need.

Maintaining and encouraging physical activity may improve muscle strength, endurance and the range of motion in a joint, as well as, fostering independence, social and emotional wellbeing, therefore, improving the quality of life (Verschuren et al. 2012; Palisano et al., 2011; Saleh, 2009; Lindsay and McPherson, 2012b). However, Lindsay (2016) found that whilst physical activity can help children with CP it may also cause pain in hips, back and upper limbs. This could lead to feelings of frustration and social exclusion. White (2009) furthers this by saying that yoga should not cause pain and should not be a competition.

The United Nations Convention on the Rights of the Child (UNICEF, 1990) and the United Nations Convention on the Rights of Person with Disabilities (United Nations, 2008) states that children have the right to enjoy a full and decent life. Therefore, by doing yoga it may improve their physical ability and improve their life (Lindsay and McPherson, 2012b).

The Motor Learning Theory states that a particular movement can be done by many combination of muscle actions and children with CP may struggle to get the correct combination (Saleh, 2009). Therefor, by doing yoga it may consolidate the actions in the brain.

Klaas et al. (2010), Majnemer et al. (2008) and Galantino et al. (2008) suggest that children with a physical disability tend to participate less in formal and structured activities. However, Palisano et al. (2011) and Majnemer et al., (2008) found that this was dependent on the physical and social ability of the child with CP, the higher the ability the more the child would participate. Furthermore, children may not have the same desire to participate for numerous of reasons including being self-conscious or not interested in the activity (Palisano, et al., 2011; Lindsay and McPherson, 2012b). However, Kaley-Isley et al. (2010) found that the environment may not be right for the child which may cause the child not to participate. On the other hand, Tonkin et al., (2014); Galantino et al., (2008) found that children with CP may participate in yoga as it is done in a familiar environment. According to Bandura (1997), the feeling of being self-conscious can be linked to Self efficacy which is children's ability to believe in themselves when doing a particular activity. Therefore, by having low confidence the child with CP would have low self-efficacy and not participate in the Mini Me Yoga (Palisano et al., 2011; Lindsay and McPherson, 2012b). The Mini Me yoga is designed to build self-esteem and confidence in children. Galantino et al. (2008) furthers this as they found that yoga reduces these feelings of anxiety and low self esteem. Whilst doing Mini Me Yoga the practitioner should focus on the child's abilities and not their disabilities by adapting some of the yoga positions and include more of the ones that the child with CP can do (Lindsay and McPherson, 2012b; White, 2009; Novak et al., 2013; Mini Me Yoga, no date). According to Saleh (2009) and Mini Me Yoga (no date) practitioners should be trained in yoga and working with children with CP to ensure that they can cater for the child's needs.

Lindsay and McPherson (2012b) and Lindsay (2016) found that children with a disability want practitioners to listen to them more and have knowledge of their disability. If the activity is not adapted then it would exclude the child with CP which reflects the Social Model of Disability (Emens and Stein, 2016; Anastasiou and Kauffman, 2011).

Conclusion

To conclude, CP is a lifelong condition that affects the muscles (Scope, 2017; NHS, 2017). This can cause children to be socially excluded from activities or physically unable to do the activities. Mini Me Yoga is a strategy that can be used to help reduce these barriers. Mini Me Yoga is a fifteen minute activity which has different elements including breathing, thinking about others and yoga (Mini Me Yoga, no date). Lindsay and McPherson (2012b) and Lindsay (2016) found that yoga can develop motor skills for children with CP. However, these activities would need to be adapted for the child. The Medical Model of Disability and the Social Model of Disability has suggested how either society or the CP may be a barrier to the child (Emens and Stein, 2016; Anastasiou and Kauffman, 2011).

Further Reading

Lindsay, S. and McPherson, A. (2012) 'Strategies for Improving Disability Awareness and Social Inclusion of Children and Young People with Cerebral Palsy', *Child Care, Health and Development,* Volume 38, Issue 6, November, pp. 809-816. [On-line]. Available at: https://web-b-ebscohost-com.ezproxy.uwtsd.ac.uk/ehost/pdfviewer/pdfviewer?vid=1&sid=4b917b89-d530-427e-bde7-a77412bf360c%40pdc-v-sessmgr01 [Accessed: 13th May 2018].

Mini Me Yoga. (no date) ' Why Teach Yoga in Schools?' http://minimeyoga.com/wp-content/uploads/2017/03/ebook.pdf [Accessed: 14th May 2018].

Palisano, R. J., Orlin, M., Chiarello, L. A., Oeffinger, D., Polansky, M., Maggs, J., Gorton, G., Bagley, A., Tylkowski, C., Vogel, L., Abel, M. and Stevenson, R. (2011) 'Determinants of Intensity of Participation in Leisure and Recreational Activities by Youth With Cerebral Palsy', *Archives of Physical Medicine and Rehabilitation,* Volume 92, Issue 9, September, pp. 1468-1476.

Reference List

Anastasiou, D. and Kauffman, J. (2011) 'A Social Constructionist Approach to Disability: Implications for Special Education', *Exceptional Children,* Volume 77, Issue 3, April, pp. 367-384. [On-line]. Available at: http://journals.sagepub.com/doi/pdf/10.1177/001440291107700307 [Accessed: 1st May 2018].

Anittila, H., Autti-Rämö, I. Suoranta, J., Mäkelä, M. and Malmivaara, A. (2008) 'Effectiveness of Physical Therapy Interventions for Children with Cerebral Palsy: A systematic review', *BCM Pediatrics,* Volume 8, Issue 14, April, pp. 1-10. [On-line]. Available at: https://bmcpediatr.biomedcentral.com/track/pdf/10.1186/1471-2431-8-14 [Accessed: 14th May 2018].

Bandura, A. (1997) *Self-Efficacy: The exercise of control*. New York: W. H. Freeman.

Bartram-Brown, K. L. (2017) *Fifteen-Minutes a Day of Yoga and Mindfulness Improves Mental and Emotional Health in Children.* Thesis (IMD). Graduate School of International Quantum University of Integrative Medicine. [On-line]. Available at: http://minimeyoga.com/wp-content/uploads/2017/09/YogaAndMindfulnessImprovesMentalHealth.pdf [Accessed: 19th May 2018].

Beets, M. W. and Mitchell, E. (2010) 'Effects of Yoga on Stress, Depression, and Health-Related Quality of Life in a Non-Clinical Bi-Ethnic Sample of Adolescents: A Pilot Study', *Hispanic Health Care International*, Volume 8, Issue 1, March, pp. 47–53.

Causton-Theoharis, J. (2009) 'The Golden Rule of Providing Support in Inclusive Classrooms: Support others as You Would Wish to Be Supported', *TEACHING Exceptional Children,* Volume 42, Issue 2, November/December, pp. 36-43.

Coster, W., Bedell, G., Law, M., Khetani, M.A., Teplicky, R., Liljenquist, K., Gleason, K. and Kao, Y. C. (2011) 'Psychometric Evaluation of the Participation and Environment Measure for Children and Youth (PEM-CY)', *Developmental Medicine and Child Neurology*, Volume 53, Issue, 11, November, pp. 1030-1037.

Davis, E., Shelly, A., Waters, E., MacKinnon, A., Reddihough, D., Boyd, R. and Graham, H. K. (2009) 'Quality of Life of Adolescents with Cerebral Palsy: Perspectives of Adolescents and Parents', *Developmental Medicine and Child Neurology,* Volume 51, Issue 3, March, pp. 193-199.

Diamond, A. and Lee, K. (2011) 'Interventions Shown to Aid Executive Function Development in Children 4 to 12 Years Old', *Science,* Volume 19, Issue 333, August, pp. 959-964.

Emens, E. F. and Stein, M. A. (eds) (2016) *Disability and Equality Law.* Routledge: London. [e-book]. Available at: https://books.google.co.uk/books?hl=en&lr=&id=ry8rDwAAQBAJ&oi=fnd&pg=PA3&dq=medical+model+of+disability&ots=VdLh5hA35Q&sig=Aw2tD5C46BWBnhhzmY36jubvxmY#v=onepage&q=medical%20model%20of%20disability&f=false [Accessed: 1st May 2018].

Emoto, M. (2010) 'What is the Photograph of Frozen Water Crystals' http://www.masaru-emoto.net/english/water-crystal.html [Accessed: 20th May 2018].

Galantino, M., Galbavy, R. and Quinn, L. (2008) 'Therapeutic Effects of Yoga for Children: A Systematic Review of the Literature', Pediatric Physical Therapy, Volume 20, Issue 1, April, pp. 66-80. [On-line]. Available at: https://pdfs.journals.lww.com/pedpt/2008/01910/Therapeutic_Effects_of_Yoga_for_Children__A.10.pdf?token=method|ExpireAbsolute;source|Journals;ttl|1526336702868;payload|mY8D3u1TCCsNvP5E421JYK6N6XICDamxByyYpaNzk7FKjTaa1Yz22MivkHZqjGP4kdS2v0J76WGAnHACH69s21Csk0OpQi3YbjEMdSoz2UhVybFqQxA7lKwSUlA502zQZr96TQRwhVlocEp/sJ586aVbcBFlltKNKo+tbuMfL73hiPqJliudqs17cHeLcLbV/CqjlP3IO0jGHlHQtJWcICDdAyGJMnpi6RlbEJaRheGeh5z5uvqz3FLHgPKVXJzdLjXOnN9YiFlC6sg22R6aSwARZ5CKDGYQ1dNlmbaIAw8=;hash|hHE55cmvwIrwovJ5oRYizg [Accessed: 16th May 2018].

Greenberg, M. T. and Harris, A. R. (2012) 'Nurturing Mindfulness in Children and Youth: Current State of Research', *Child Development Perspectives*, Volume 6, Issue 2, October, pp. 161-166. [On-line]. Available at: *https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1750-8606.2011.00215.x* [Accessed: 19th May 2018].

Kaley-Isley, L., Peterson, J., Fischer, C. and Peterson, E. (2010) 'Yoga as A Complementary Therapy for Children and Adolescents: A Guide for Clinicians', Psychiatry, Volume 7, Issue 8, August, pp. 20-32. [On-line]. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2945853/pdf/PE_7_8_20.pdf [Accessed: 16th May 2018].

Klaas, S. J., Kelly, E. H., Gorzkowski, J., Homoko, E., and Vogel, L. C. (2010) 'Assessing Patterns of Participation and Enjoyment in Children with Spinal Cord Injury', *Developmental Medicine and Child Neurology*, Volume 52, Issue 5, May, pp. 468-474.

Lindsay, S. (2016) 'Child and Youth Experiences and Perspectives of Cerebral Palsy: A Qualitative Systematic Review', *Child Care, Health and Development,* Volume 42, Issue 2, March, pp. 153-175. [On-line]. Available at: https://web-b-ebscohost-com.ezproxy.uwtsd.ac.uk/ehost/pdfviewer/pdfviewer?vid=1&sid=131600ff-01a1-4270-ab6e-88e31e0c4db4%40pdc-v-sessmgr01 [Accessed: 13th May 2018].

Lindsay, S. and McPherson, A. (2012a) 'Experiences of Social Exclusion and Bullying at School Among Children and Youth with Cerebral Palsy', *Disability and Rehabilitation*, 34, Issue 2, August, pp. 101-109.

Lindsay, S. and McPherson, A. (2012b) 'Strategies for Improving Disability Awareness and Social Inclusion of Children and Young People with Cerebral Palsy', *Child Care, Health and Development,* Volume 38, Issue 6, November, pp. 809-816. [On-line]. Available at: https://web-b-ebscohost-com.ezproxy.uwtsd.ac.uk/ehost/pdfviewer/pdfviewer?vid=1&sid=4b917b89-d530-427e-bde7-a77412bf360c%40pdc-v-sessmgr01 [Accessed: 13th May 2018].

Majnemer, A., Shevell, M., Law, M., Birnbaum, R., Chilingaryan, G., Rosenbaum, P. and Poulin, C. (2008) 'Participation and Enjoyment of Leisure Activities in School-Aged Children with Cerebral Palsy', *Developmental Medicine & Child Neurology,* Volume 50, Issue 10, October, pp. 751-758. [On-line]. Available at: https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1469-8749.2008.03068.x [Accessed: 14th May 2018].

Maslow, A. (1971) *The Farther Reaches of Human Nature*. New York: The Viking Press.

Mini Me Yoga. (no date) 'Why Teach Yoga in Schools?' http://minimeyoga.com/wp-content/uploads/2017/03/ebook.pdf [Accessed: 14th May 2018].

NHS. (2017) ‘Cerebral Palsy’ https://www.nhs.uk/conditions/cerebral-palsy/ [Accessed: 25th April 2018].

Novak, I., Mcintyre, S., Morgan, C., Campbell, L., Dark, L., Morton, N., Stumbles, E., Wilson, S. and Goldsmith, S. (2013) ‘A systematic Review of Interventions for Children with Cerebral Palsy: State of the Evidence’, *Developmental Medicine and Child Neurology*, Volume 55, Issue 10, October, pp. 885-910. [On-line]. Available at: https://onlinelibrary.wiley.com/doi/epdf/10.1111/dmcn.12246 [Accessed: 17th May 2018].

Palisano, R. J., Orlin, M., Chiarello, L. A., Oeffinger, D., Polansky, M., Maggs, J., Gorton, G., Bagley, A., Tylkowski, C., Vogel, L., Abel, M. and Stevenson, R. (2011) ‘Determinants of Intensity of Participation in Leisure and Recreational Activities by Youth With Cerebral Palsy’, *Archives of Physical Medicine and Rehabilitation,* Volume 92, Issue 9, September, pp. 1468-1476. [On-line]. Available at: https://www.archives-pmr.org/article/S0003-9993(11)00252-8/pdf [Accessed: 12th May 2018].

Pittet, I., Berchtold, A., Akre, C., Michaud, P. A. and Suris, J. C. (2010) ‘Are adolescents with Chronic Conditions Particularly at Risk of Bullying?’, *Archives of Disability in Childhood*, Volume 95, Issue 9, September, pp. 711-716.

Racine, E., Lariviere-Bastien, D., Bell, E., Majnemer, A. and Shevell, M. (2013) ‘Respect for Autonomy in The Health Care Context: Observations from A Qualitative Study of Young Adults with Cerebral Palsy’, *Child: Care, Health and Development*, Volume 39, Issue 6, November, pp. 873-879.

Saleh, M. (2009) *Actual Versus Best Practices for Young Children with Cerebral Palsy: A Survey of Pediatric Occupational Therapists and Physical Therapists in Quebec, Canada*. Thesis (PhD). McGill University.

Scope. (2017) ‘Cerebral Palsy’ https://www.scope.org.uk/support/families/diagnosis/cerebral-palsy [Accessed: 25th April 2018].

Telles, S., Singh, N., Bhardwaj, A., Kumar, A. and Balkrishna, A. (2013) ‘Effect of yoga or physical exercise on physical, cognitive and emotional measures in children: A randomized controlled trial’, *Child and Adolescent Psychiatry and Mental Health,* Volume 7, Issue 1, November, pp. 37-53. [On-line]. Available at: https://capmh.biomedcentral.com/track/pdf/10.1186/1753-2000-7-37 [Accessed: 17th May 2018].

Tonkin, B., Ogilvie, B., Greenwood, S., Law, M. and Anaby, D. (2014) ‘The Participation of Children and Youth with Disabilities in Activities Outside of School: A Scoping Review’, *Canadian Journal of Occupational Therapy,* Volume 81, Issue 4, October, pp. 226-236. [On-line]. Available at: http://journals.sagepub.com.ezproxy.uwtsd.ac.uk/doi/pdf/10.1177/0008417414550998 [Accessed: 13th May 2018].

United Nations. (2008) *Convention on the Rights of Persons with Disabilities*. New York: United Nations.

Verschuren, O., Wiart, L., Hermans, D. and Ketelaar, M. (2012). ‘Identification of Facilitators and Barriers to Physical Activity in Children and Adolescents with Cerebral Palsy’, *The Journal of Pediatrics,* Volume 161, Issue 3, September, pp. 488-494. [On-line]. Available at: https://ac-els-cdn-com.ezproxy.uwtsd.ac.uk/S0022347612002454/1-s2.0-S0022347612002454-main.pdf?_tid=24cfa1e9-2455-41f9-ba8a-8721109260d1&acdnat=1526132767_df6b73c4f7f00e4f198224b1ca69bcb6 [Accessed: 12th May 2018].

Vygotsky, L. S. (1978) *Mind in society: The development of higher psychological processes.* Cambridge: Harvard University Press.