Yoga on Parenting Stress in Mothers of Children with Cerebral Palsy and Practice Fields of the Training of Relaxation of Yoga: A **Systematic Review**

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Abstract: A static, non-progressive lesion in the brain is the underlying cause of cerebral palsy, a pediatric neurological disorder affecting children. Children with this disease will continue to experience its effects throughout their lives. A multi-centric team strategy is necessary. The majority of cases of causal events happen during the first two years of a child's life. Due to weak muscles, poor coordination, and overly tense muscles, a kid with CP struggles to carry out their daily activities. The most common cause of cerebral palsy in children is stress, which has negative effects on their environment, development, growth, and the people around them. The purpose of this research is to provide some preliminary evidence that yoga, particularly the relaxation techniques used in yoga, can help alleviate some of the tension that parents of children with cerebral palsy experience.

Keywords – Yoga, Cerebral palsy, Parenting stress

Introduction

A non-progressive brain damage is the underlying cause of cerebral palsy, a neurological condition affecting children. This long-term illness affects kids for the rest The team must adopt a multicentric approach. In most cases, the of their lives. causative event occurs in a person's early years, typically prior to the age of 2. When a person has cerebral palsy, it affects the part of the brain that controls movement in the muscles. A child with cerebral palsy has trouble moving about because their muscles are weak, uncoordinated, and overly stiff. Imaging studies, such as ultrasonography or magnetic resonance imaging (MRI), can reveal damage to the brain's white matter in premature infants and to the gray matter and brain stem nuclei in full-term newborns, as a result of cerebral palsy, which is mainly caused by environmental factors that can

interact with genetic vulnerabilities. There is an increase in the stress levels of parents whose children suffer from developmental disorders, including intellectual disabilities, cerebral palsy, and autism.(Hassall et al., 2005; Estes et al., 2009; Glenn et al., 2009; Davis and Carter, 2008; Baker et al., 2003). 5-9. The complex and negative reaction of parents raising children with cerebral palsy is known as parenting stress. These families have physical, social, economic, and psychological problems. The purpose of this study was to establish a foundation for effective welfare planning by investigating the amount and significance of practical help in lowering stress among parents.

Yoga is an exercise method that promotes flexibility, which in turn builds strong muscles and bones, and has long-term positive effects on one's physical health. Practicing yoga regularly can help you feel better all over by bringing your body's many systems into harmony. As a result, cardiovascular endurance, oxygenation, and circulation are all enhanced, and the risk of cardiovascular disease is reduced.

Yoga benefits cerebral palsy sufferers by enhancing flexibility, strength, balance, coordination, stress reduction, and body awareness. Yoga can significantly reduce parenting stress in parents of children with cerebral palsy. Parents of children with cerebral palsy may experience heightened stress levels due to the physical and emotional demands of caregiving. Yoga can assist parents in cultivating coping mechanisms, enhancing their emotional health, and improving their overall quality of life. Yoga helps enhance physical health, which is crucial for parents facing physical strain due to caring duties. This study aims to determine the efficacy of relaxation training and yoga in reducing parenting stress among children with cerebral palsy.

Methodology

Sources of Information used for Research:-

The sources utilized for information were PubMed, Google Scholar, SciELO, Clinical Trials, and PsycINFO.

> Inclusion Criteria

- (1) Observational studies determining the yoga on parenting stress in mothers of individuals with CP and practice fields of the training of relaxation.
- (2) Articles in English
- (3) Published between 1st January 2005 to 31st December 2021

> Exclusion Criteria

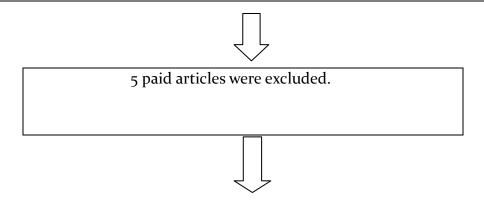
- (1) Studies focusing on different mental diseases
- (2) Studies focusing on non-family caregivers, siblings, and other relatives.
- (3) Intervention studies.
- (4) Articles in languages not meeting the completion criterion.
- (5) Studies involving children without a confirmed diagnosis of cerebral palsy.
- (6) Multiple studies conducted repeatedly.
- (7) Incomplete studies

Consort Flow Diagram

To articles were found from the source PubMed, Google scholar, Clinical trials etc. on parenting stress, yoga, relaxation of cerebral palsy, patients.



40 articles were found on yoga, parenting stress, relaxation training of mothers of cerebral palsy patients.



10 articles were studied in this review from January 2005- December 2021

Procedure

Electronic databases such as PubMed, Google Scholar, and PsycINFO were methodically searched for publications written in English. The main focus was on parenting mindfulness and parenting behaviour. The initial decision was based on the boolean association of descriptors, followed by title reading, summary reading, and ultimately, reading the complete article. Throughout the study selection process, researchers rigorously documented and summarized the number of publications identified in electronic databases, as well as the number of excluded or duplicate papers.

Intervention

Authors	Publication	Results	Conclusion
I. C. M. Rentinck, M. Ketelaar,M. J. Jongmans and J. W.Gorter (Journal compilation child;carehelth& development)	27 Feb 2006	Factors relating to resources of individual family members, the family unit, community, family evaluation, and adaptive coping were extracted.	this field has been mostly
R.Hassall, J. Rose & McDonald(Journal of Disability Research)	Volume 49 Part 6 June 2005	Examining Person correlation coefficients, there were no significant correlation bet the adaptive.	This study presents evidence that parental stress in moms of children with cerebral palsy affects their sense of satisfaction with parenting.

ShilpaBishta, BhavnaChawlab, MadhuriTolahunasea, RichaMishraa, Rima Dada.(Annals of Neuro Sciences)	Volume 20,No.2, April 2019	The yoga-based lifestyle intervention also resulted in a notable increase in parents.	A yoga-based lifestyle intervention decreased psychological stress severity, enhanced overall quality of life, and could be a valuable therapy for parents to improve stress management and coping methods.
Yeon-GyuJeong, PT, MPH, Yeon-gaegeong, PT, geong-A Bang, PT(J.Phys.There.Sci.)	Vol.25, No.10, May 10 2013	Mothers' parenting stress was significantly predicted by the level of impairment, mother's health state, and social support.	,

Eun-Young Park (International Journal of Environmental Research and Public Health)	2 Sept.2021	The predicted directions of the intercorrelations between depression, self-control, parental stress, and gross motor performance were all met.	psychological and physical well-being. Our evaluation of children with CP supported the study's hypothesis. Depression was less common among mothers who demonstrated more self-control. With cerebral palsy, we looked at how stress affected the condition.
Catherine Man, Koa Whittingham ,Ross cunnington, RoslyNBoyd (Development Medicine & Child Neurology)	60(9),922-932, 2018	Patents in the yoga group demonstrated significant decreased mind fullness .	This study can be considered as programme for children with CP can perform yoga techniques where ever they are with their parents family and friends
Tainara m barreto, mayara n bento ,tamiris m barreto ,joaogabrieljagersbacherNathalia s. jones,	15June 2019	Mother of with cerebral palsy. Extracted data	Parents of children with cerebral palsy have not been

Rita lucena (Development medicine &child Neurology)		for analysis includes study data, information on participants with CP, and data about parents. The group of volunteer parents consisted of all mothers, with 95 percent	extensively investigated to determine the most prevalent mental problem among them.
Amy s.weitlauf, Alison C. Vehorn (The international journal of research and practice)	2014 Feb :18(2)	being female. Increased levels of parenting stress were strongly associated with greater kid problem behaviour.	This study can be heterogenous and parenting stress is useful in yoga and relaxation.
Karen Pilkington, Graham Kirkwood, Hagen Rampes ,Janet Richardson,(Journal of affective Disorder	89(1-3).po.13- 24 December 2005.	Yoga therapies were used for conditions ranging from moderate to severe. All trials yielded positive results, although lacked methodological specifics on randomization, compliance, and attrition rates. No side effects were recorded, save for weariness and	Some therapies may not be possible for individuals with limited or restricted mobility. However, more research on using yoga as a therapeutic treatment is necessary.

		dyspnea.	
Yongli Wang, Zhaoming	October 2017	When looking at	This study
Huang, Deng Kong (Journal of		the correlation	aimed to
Health Psychology)		between yoga	investigate the
		practice and	relationship
		reduced	between social
		parenting stress	support, yoga,
		in moms of	and life
		children with CP,	happiness for
		both family and	mothers with
		friend support	cerebral palsy
		played an equally	children, as
		important role.	well as the
			relationship
			between stress
			in parenting
			and these
			factors.

Results

A total of ten papers including 264 moms of children with Cerebral Palsy (CP) were chosen for inclusion. There were three types of data taken for analysis: research data, data about parents, and data on individuals with CP. The majority of the parents who volunteered for the study were women (95%).

We found that, compared to controls in most research, mothers whose children participated in relaxation programs had much lower rates of despair and anxiety. The most effective interventions for depression were yoga and progressive muscle relaxation training. Anxiety symptoms among mothers were most successfully reduced by yoga and integrated relaxation training. Based on these results, yoga seems like a good option for moms looking for a self-control technique.

Discussion

The findings of this comprehensive analysis suggest that parents of children with CP have higher rates of sadness and anxiety compared to parents of usually developing children or those with other disorders that were evaluated. Health care techniques can be informed by the fact that parents of CP children are more likely to experience mental health difficulties.

Multiple studies have found that parental mental health has a positive effect on their children's academic achievement and happiness. Children whose parents suffer from mental illness are statistically more likely to have poorer quality of life, rehabilitative outcomes, and overall development.

Mothers' age and demographics had no bearing on the stress they reported as parents. However, there were negative associations between parenting stress and the mother's income, health, and degree of education, suggesting that stress in parenting is more prevalent among mothers with lower levels of education. Parents of children with cerebral palsy who are unable to walk report higher levels of stress compared to parents of children with CP who are able to walk. In addition, parents experience even more stress due to the fact that in many cases of CP, mental retardation occurs alongside bodily infirmity.

The therapeutic reduction of psychological and physiological stress following the humor intervention session was comparable to that following the yoga intervention session.

The yoga session reduced anxiety and increased well-being in both the parents and teenagers. How long it took for these groups to feel the effects of only one yoga practice is unknown.

In particular, the relaxation training that combined movement-oriented and experienced yoga with the more "exotic" style of yoga had the most impact. The clear benefits of exercise demonstrate that yoga is an appropriate relaxation technique for kids and broaden the range of options for kids of this age. Numerous academic institutions have conducted studies attesting to the efficacy of yoga therapy, relaxation training, and social support.

Conclusion

Finally, the goal of this program is to help CP moms feel more confident in themselves and their abilities. During the process of educating them on yoga and relaxation techniques for the effective management of stress and anxiety in response to everyday stressors. Among CP parents, stress is the most prevalent mental disorder, and it often does not alleviate symptoms.

Due to a lack of adequate research, there is no solid information available in the literature about substance usage among parents of CP children, and it is also impossible to determine which mental disorder is more common among this group.

References

- 1. National Institute of Neurological Disorders and Stroke : www.minds.nih.gov (Accessed july 2013).
- 2. Maenner, M. J., Blumberg, S. J., Kogan, M. D., Christensen, D., Yeargin-Allsopp, M., &Schieve, L. A. (2016). Prevalence of cerebral palsy and intellectual

- disability among children identified in two U.S. National Surveys, 2011-2013. Annals of Epidemiology, 26(3), 222–226.
- 3. Bax M, Goldstein M, Rosenbaum P, et al.: Executive committee for the definition of cerebral palsy. Proposed definition and classification of cerebral palsy. Dev Med Child Neurol, 2005, 47: 571-576.
- 4. StephaneMaret et al .(2013); Patho physiology of cerebral palsy Handbag Coin Neurol.2013;111:169-76.
- 5. Baker BL, Mcintyre LL, Blacher J, et al. (2003) Preschool children with and without developmental delay: Behavior problems and parenting stress over time. Journal of Intellectual Disability Research 47(4-5): 217-230.
- 6. Davis NO and Carter AS (2008) Parenting stress in mothers and fathers of toddlers with autism spectrum disorders: Associations characteristics. Journal of Autism and Developmental Disorders 38(7): 1278-
- 7. Estes A, Munson J, Dawson G, et al. (2009) Parenting stress and psychological functioning among mothers of preschool children with autism and developmental delay. Autism: The International Journal of Research and Practice 13(4): 375–387.