


Chapter 19

Yogic Care for Neurodevelopmental Rehabilitation: Bringing Life Into Treatment, Management, and Prevention

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ABSTRACT

Recent biological and behavioral studies indicate that several unhealthy alterations in ways of living (i.e., consumption-pattern, leisure activities, sleep routine, postures, breathing, stress-level, and use of high-tech gadgets) may be related with aggravation and augmentation of neurodevelopmental disorders. In this backdrop, it is important to recognize that yoga offers holistic knowledge for correction in lifestyle to not only prevent but also manage and alleviate neurodevelopmental disorders. Unfortunately, clinicians have been relying in their practice rather heavily on intrusive and pharmacological interventions and avoiding the use of sustainable techniques. Therefore, in order to increase awareness and promote its use in clinical settings, present work is ventured on the understanding effectiveness of and challenges in utilizing yogic practices for neurodevelopmental rehabilitation. It also identifies priorities for future research and action to amplify applicability of yogic lifestyle in hospitals, clinics, and other public health centers.

INTRODUCTION

In last few decades, Neurodevelopmental Disorders (NDD) has emerged as one of the greatest threats to public health. Persons with developmental deficits in speech, use of language, scholastic progress, social skills, communication and intellectual ability, constitute a substantial chunk of human popula-

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tion throughout the world. In a study, only among children of 4000 families in six regions of India, the prevalence rate for NDD ranged between 10-18 percent (Silberberg, Arora, Bhutani, Durkin, Gulati, Nair, & Pinto-Martin, 2014). Autism Spectrum Disorder-which is only one specific disorder under the NDD- has been globally estimated to occur in one person in every 160 persons (Elsabbagh, Divan, Koh, Kim, Kauchali, Marcín,... & Yasamy, 2012); while prevalence rate for many other NDDs in many low-income countries remains unexplored (Hossain, Ahmed, Uddin, Chowdhury, Iqbal, Kabir,... & Hossain, 2017). Additionally, if we take full life course perspective into our account, then incidences of developmental deficits in the central nervous system and their consequent malady for human life, would present a much grim scenario.

In many countries, traditionally, persons lacking developmentally relevant capacities are socially ostracized and face inhumane stigma. While some peoples suffering from NDD have normal abilities to live independently but many others need life-long care and support. As a result, many families and communities have to carry a substantial degree of emotional and financial burden (Dyken, 2015). Due to lack of skilled health professionals, infrastructure, and financial constraints, a majority of developing and lower-income countries are not capable to provide appropriate health and education services to those, who are afflicted with these disorders and caregivers. In this context, with support from more than 60 nations, World Health Organization has sought to promote sharing of sustainable and cost-effective strategies to strengthen and expand integrated healthcare services for mental health and disability (Grupp-Phelan, Harman, & Kelleher, 2007).

Furthermore, although, we lack clear picture about causes of NDD, a number of pre-natal and environmental risk factors have been recognized. For long, previous studies have noted that childhood, in the modern age, has become susceptible to much vulnerability due to the unhealthy lifestyle of parents before and after conception (Dyken, 2015; Sampson, Streissguth, Bookstein, Little, Clarren, Dehaene, ... & Graham, 1997; Talge, Neal, & Glover, 2007). Also, many unhealthy alterations in lifestyle have been found to be major contributors in the development of social, behavioral and communicative disorders (Mattson, Allison, Fontana, Harvie, Longo, Malaisse, ... & Seyfried, 2014; Mattson, 2015; Singh & Misra, 2012, 2015, 2016). In this context, several agencies have articulated the urgent need to outline relevant cost-effective strategies.

We can also easily interpret following multiple aspects which denote for suitability of yoga in the care of persons suffering from developmental disabilities.

- First, it harmonizes multiple aspects of mind-body functioning (Singh, 2017).
- Second, being convenient to learn and practice, both for patients and healthcare providers, it can be adopted in any rehabilitation settings, comparably easily than any other therapy for management and treatment of NDD.
- Thirdly, yogic care involves little financial investment because it does not require a huge financial expenditure for purchasing equipment and training yoga therapists. It can be easily used in resource-deprived countries also (Chuang, Soares, Tilbrook, Cox, Hewitt, Aplin, ... & Torgerson, 2012; Hartfiel, Clarke, Havenhand, Phillips, & Edwards, 2017).
- Fourth, as evidenced in several studies for supplementing role, yoga can be integrated with any other therapy (Desikachar, 1999; Kalyani, Venkatasubramanian, Arasappa, Rao, Kalmady, Behere,... & Gangadhar, 2011).
- Fifth, because of holistic effects, it can resolve multiple concerns related to physical, mental, social and occupational domains (Jeter, Slutsky, Singh, & Khalsa, 2015).

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