

## **Ayurveda for mentally challenged children: A review literature**

**Chordiya Harshad L.\*<sup>1</sup>, Ratnaparkhi Karuna S.<sup>2</sup>**

1. P.G. Scholar,
2. Guide and HOD , Department of Kaumarbhritya,

C.S.M.S.S. Ayurved Mahavidyalaya, Aurangabad, Maharashtra, India.

\* Corresponding author: [harshad.chordiya@gmail.com](mailto:harshad.chordiya@gmail.com)

### **Abstract:**

Developmental disabilities involve physiological and genetic components in children but etiologic of some these disorders in children are unknown. Learning disorders, communication skill disorders, pervasive developmental disorders, ADHD etc. comes under these category. The management of mentally challenged children need special attention.

*Ayurveda* the parental origin of all the *pathies* has got different approaches towards diseases from both corners preventive as well as curative. A number of paediatric problems are there which are still incurable and some of them make children mentally handicapped. Ayurveda is a system of traditional Indian therapies that includes herbs, yoga, *panchakarma* and use of various traditional formulations like; *Medhya Rasayanas* which are helpful in enhancing cognition, intellect, attention span.

Parents have to face several hardships for bringing up of special children or mentally challenged children. Parents use different ways to raise such children so that they may live an independent life or can become self-

sufficient. Majority of parents of mentally challenged children have some form of frustration, guilt or emotional disturbance due to the limited abilities of their child to carry out social life. Sometimes it may lead to parental rejection due to some form of social stigma attached to such conditions. Acceptance of sub average of their child by parents and their consistent and concern behavior for management of such child plays important role to improve outcome of treatment.

*Ayurveda* enhances mental ability, perception and behaviour through natural techniques, etc. *Ayurvedic* classics described that mentally challenged children have hypo function of *Dhee*, *Dhriti* and *smriti*. *Lehana Kalpana* as described by *Aacharya Kashyapa* has major role in treating mentally subnormal children. *Medhya Rasayanas* and *Medhya yogas* described in *Ayurvedic* classics improves the intelligence and memory, also it increases the efficacy of *Manovaha Srotas*. This paper shares some *Ayurvedic* approaches of treating mentally challenged children.



**Keywords:** Mentally challenged children, Ayurvedic Herbs, Yoga and Meditation, *Panchakarma*.

## Introduction:

Children are the vulnerable people of the society. A healthy child can make a healthy nation but inspire of several scientific efforts the morbidity and mortality rate in children is gradually increasing.<sup>[1]</sup>

In Ayurvedic classics, 'Mentally retarded children' have been described as '*Balbuddhimandya*' by Acharya.<sup>[2]</sup> The references like *Jada* (inert), *Mudha* (dull), *Nirbuddhi*, *Abuddha*, etc. are found in different context, meaning intellectually impaired persons.<sup>[3]</sup> Mental Retardation (MR) refers to significantly sub average general intellectual functioning resulting in or associated with concurrent impairment in adaptive behaviour and manifested during the development period.<sup>[4]</sup> Mental retardation (MR) is formally diagnosed by an assessment of intelligent quotient (IQ) below 70 and adaptive behavior. Adaptive behavior, or adaptive functioning, refers to the skills needed to live independently. Children with intellectual disability learn more slowly than a typical child. Children may take longer to learn language, develop social skills, communicating skills and take care of their personal needs such as dressing or eating.<sup>[5]</sup> Research work in various aspects of MR has been conducted all over the world with growing awareness in order to solve this complex phenomenon. Currently, there is no 'cure' for an established disability though with appropriate support and teaching, most individuals can learn to do many things.



There are four broad areas of intervention. These include psychosocial treatments, behavioral treatments, cognitive behavioral treatments and family – oriented strategies.<sup>[6]</sup> Psychotropic drugs have been used extensively to reduce the symptoms associated with psychiatric disorders, but they too have their own side effects.<sup>[7]</sup>

A fundamental approach of Ayurveda to treat mental illness is to enhance *dhi*, *dhriti* and *smriti* which ultimately enhance the mental co-ordination. Ayurvedic herbs, *Medhya rasayanas*, Yoga and meditation, some kind of *panchakarma* used to treat mentally challenged children are safe and very effective. As per Ayurveda, balanced foods, simple herbs and spices can also boost mental health if used properly. Most mental illness is caused by *gunic* and *doshic* imbalance, may also be due to the *avidya* or ignorance of our true nature.<sup>[8]</sup>

*Balbuddhimandya* is a disease which belongs to '*Manovahastrotas*'. Ayurvedic philosophy deals with Manna as a supreme of indriyas co-ordinating it's specific role with *indriyas* time to time as per various necessities.<sup>[9]</sup> e.g. physical, mental, psychological, physiological, emotional, spiritual, etc. The manna is an inorganic phenomenon which contains three universal factors *Satva*, *Raja* and *Tama*, hence this manna is *Trigunatmak*. In '*Balabuddhimandya tamoguna* is found to be highly raised in comparison to *Raja guna*, whereas *Satvaguna* is observed very negligible. That's why a child suffering from *Balbuddhimandya* doesn't functioning properly.<sup>[2]</sup>

Ayurveda suggest that achieving *doshic*

balance, promoting healthy habits and strengthening immunity and *agni* in early childhood can set the foundation for optimal mental growth and development.<sup>[10]</sup>

**Incidence:** According to World health organization, mental disorders are to increases by 50% in 2020, become on the international level one of the main causes of morbidity in children. Children constitute about 40% of our population and in Indian studies the reported rate of psychopathology among children is 5-15%. A recent analysis estimated that the global cumulative impact of mental disorder in terms of lost economic output will amount to US\$1600 billion over next 20 years.<sup>[11]</sup>

The incidence of developmental disabilities in children per thousand is as given below<sup>[12]</sup>:

- Mental retardation 25-30
- Cerebral palsy 02-03
- Attention- deficit/ hyperactivity Disorder 75-100
- learning disabilities 75
- Communication disorders including hearing loss 02-03
- Childhood autism 0.2-0.5

### **Improvement of Mental performance by Ayurvedic therapy -**

The different studies were conducted to enhance mental performance of children by improving their reaction time. The study found that different herbs were significantly effective in improving total mental performance. Ayurveda believes a different view regarding cognition processes and theories of information, processing, therefore possesses new approaches for management

of cognition related disorders. Herbal therapy is highly effective in improving total reaction time and no adverse effects were observed with herbal treatment.<sup>[13]</sup>

As per Ayurveda the mechanism of regulating mental performances involves predominantly *Tikta*, *Katu-rasa*, *Laghu*, *Tikshna*, *Ushna*, *Sara-guna*, *Rasayana*, *Dipana*, *Pachana* and *Tridosha Shamaka* property and *Medhya Prabhava*.

- *Tikta rasa* has direct action on *medha* (intellect)
- *Ushna*, *Tikshna*, and *Laghu guna* dispel the *avarana* of *Tama* and increases the *Sattva guna* of *Mana*.
- *Ushna virya* and *Tikshna guna* enhance *grahana* (perception) and *Smarana* (retrieval) by harmonizing the *Pitta*.
- *Sara guna* improves *prerana* (channelizing/motivation)
- *Tridosha shamaka* property of ingredients harmonizing specially *Vata*,

There by regularize the function of *mana* and improve an attention, working memory and procedural memory.<sup>[14]</sup>

### **Medhya Herbs**

- ***Bramhi*** : (*Bacopa monnieri*) In ayurvedic classics, *bramhi* was described as brain tonic, being useful for sharpening the intellect and improving mental health. Ancient vedic scholars are reported to have used *bramhi* to aid in memorizing extensive sacred hymns and scriptures.<sup>[15]</sup> *Bramhi* has been shown to improve cognition function and mental capacity including enhancement of learning and memory acquisition and retention.<sup>[16]</sup> A



number of studies have explored possible mechanisms by which *bramhi* may enhance memory and cognition. There is evidence to suggest *bramhi* can enhance cholinergic neurotransmission, a key aspects of cognition.<sup>[17]</sup>

- ***Ashwagandha* : (*Withania somnifera*)**

In mild cognitive impairment confirms its traditional use to improve memory. Some studies concluded that *ashwagandha* may be useful in enhancing immediate and general memory, executive function, attention and information processing speed in people with mild cognitive impairment. *Ashwagandha* root has been found to possess antioxidant, *neuroprotective*, anti-inflammatory, anti-depressant, *anxiolytic* and *immunomodulating* activities.<sup>[18]</sup>

- ***Madukparni*: (*Centella asiatica*)**

The plant is valued in indigenous medicine to improve memory. In pharmacological and clinical trials, it has been found to improve the power of concentration and general ability and behaviour of mentally retarded children.<sup>[19]</sup>

- ***Shankhpushpi* : (*Convolvulus pluricalis*)** *Shankhpushpi* improves the ability to receive, retain and recall information, which helps to enhance memory. The positive effects of *Shankhpushpi* include better concentration levels, improved grasping of information, clear thinking, verbal learning skills, reasoning, improved motor skills and quicker recalling of information.<sup>[20]</sup>

- ***Vacha* : (*Acorus calamus*)**

*Vacha* specifically targets the nervous system and penetrates deep into the brain tissues. It scrapes toxins from the subtle channels in the mind and opens the *nadis* of the higher chakras. It treats headache,

mental stress, laziness and emotional imbalance. *Vacha*'s heating qualities stimulate the brain and increase alertness and focus. It significantly aids information and memory recall as it promotes cerebral circulation. It is curative for memory loss and any attention deficit disorders.<sup>[21]</sup>

### **Some traditional *Medhya* preparation :**

- ***Bramhi Ghrita* :** It is widely used as medicine and also in preparatory procedure called *snehakarma* for the treatment of improving learning skills, intelligence, memory, speech. It stimulates and nourishes brain.<sup>[22]</sup>

- ***Mahakalyanaka Ghrita* :** It is a *polyherbal Ayurvedic* medicated ghee. It is useful in treatment of mental and psychological disorders. It improves memory and concentration.<sup>[23]</sup>

- ***Panchagavya Ghrita* :** It is an ancient *Ayurvedic* preparation which increases memory, concentration grasping power and confidence. It reduces irritability, anger, ADHD, anxiety, nervousness.<sup>[24]</sup>

- ***Saraswatharishtam* :** *Saraswatharishtam* increases memory, attention span, concentration, intelligence, mental stamina and glow on the face. It decreases stress and mental fatigue.<sup>[25]</sup>

- ***Bramha Rasayana* :** Acharya Charak described *brahma rasayana* in *chikitsasthana*. *Bramha rasayana* is natural rejuvenator. It enhances *Dhee*, *Dhruti*, *Smriti*, *Medha*.<sup>[26]</sup>

- ***Ashwagandharishta*:** It's an *Ashwagandha* based liquid used in *Ayurveda*. It treats a variety of problems like Neurological, Physical and mental problems. *Ashwagandharishta* brings



Vitality. As it possesses the property of being an *Adaptogenic* as well as Antioxidants, it acts on the adrenal glands of human beings who face problems such as weakness. This brings balance in hormones and stabilizes brain function. The intellectual capability of an individual is improved and one can notice more clarity in perceiving thoughts and decision. The body is rejuvenated and revitalized promptly.<sup>[27]</sup>

- **Samvardhan Ghrita :** In *Sutrasthana leha adhaya* of *Kashayap samhita* the author confidently declares that *Samvardhan ghrita* is effective in the child suffering from the symptoms of *Panguta, Mukata, Jadata*, which are collectively seen in the mentally retarded child.<sup>[28]</sup>

## **Yoga**

A mentally retarded child learns at much slower rate than a normal child. At maturity his/her capacity to understand and learn will be less than average. Yoga practices reduce stress in life and enhance life span along with increasing memory. Due to mental disabilities children faces many problems and overall poor performance in school. Yoga can help humanity in a major way by making individuals overcome challenges posed by mental disabilities.

An integrated approach to yoga is necessary for holistic development of memory. **Tadasana** develops physical and mental balance. **Tiryak tadasana** balance the body as well as the mind.<sup>[29]</sup> **Vrukshasana** gives sense of balance and poise. **Virbhadrásana** develops concentration power. **Trikonasan** stimulates nervous system and alleviates nervous depression. **Kapalbhati** energises

the body for mental work<sup>[30]</sup> while performing **Anuloma Viloma**, breathing through left nostril tends to activate right hemisphere and breathing through right nostril activate left hemisphere. It has calming effect and relieves anxiety, improves concentration and stimulates *Ajna chakra*. The brain centre are stimulated to work nearer to their optimum capacity. **Bhramary** relieves stress and cerebral tension and thus help in alleviating anger, anxiety and insomnia. **Omkar Dhyana** produces benefits at many levels of life. It simultaneously influences body emotions, mental functioning. It is known that regular practice of yoga builds up the personality at physical, mental, intellectual and emotional in normal person some research proved that mentally challenged children also improve considerably by yoga practices. The children became more alert and less aggressive after yoga so that it was much less strenuous for the parents to handle the child.<sup>[31]</sup>

These *asanas* help in increasing blood flow to the head region and when performed alternately with standing postures the changes in the blood flow will activate the brain cells through releasing the blockages in the *nadis* for flow of *prana*. The *Satvasarata* state leads to excellence of memory, this state can be brought about by the regular practice of yoga.

## **Meditation**

It is difficult to teach meditation to mentally challenged children although it is the most essential component of yoga for better brain functions. Meditation also improves brain functioning, enhance the ability to focus, improves perception and memory, promotes development of

intelligence, induces relaxation and decreases stress. Meditation is an inherent ability of the human body. Meditation is an activity whereby the nervous system, brain and senses get tuned themselves for best functioning. During meditation, the concentration on different chakras like on *Muladhara* chakra enhances health and *Vidya*, *Manipura* chakra enhances *vidya* and capacity, *Vishuddha* chakra brings about improvement in speech and knowledge.<sup>[31]</sup>

### **Panchakarma**

*Panchakarma* is a powerful detoxification treatment, which can help to get rid of several acute and chronic disorders and diseases. However, it is advisable to take extra precautions in case of infants and young children.

•**Snehan** – Internal and external *oleation* (*snehan*) includes oil massages. A specific type of oil massage is performed on body to remove toxin from the gastrointestinal tract. These oil also rejuvenate the nervous system and relax the muscles. *Ayurveda* does recommend *oleation* or *snehan* in infant and children.<sup>[32]</sup>

•**Basti** – As enema is half of medicinal therapy or even complete treatment,<sup>[33]</sup> Basti heals numerous neurological disorders like muscular dystrophy, *hemiplegia*, muscle and nervous atrophy. It helps in mental condition such as epilepsy, mental retardation and sensory disorders. Basti has multidimensional utility. It can fulfil the purpose of elimination, palliation, nourishment and rejuvenation.<sup>[34]</sup>

•**Nasya** – As mentioned in *Ayurveda* a nose is opening to reach brain,

any medicine instilled in nasal cavity acts directly on brain and stimulate vitals centres of brain that reduce stress, regulate emotion and improves mood.<sup>[35]</sup>

•**Shirodhara** – is one of the allied of *Panchakarma* procedure to rejuvenate the body and mind, and which helps in calms the mind and relaxes the entire physiology thus helping to alleviate stress, strain and anxiety.<sup>[36]</sup>

### **Discussion:**



*Ayurveda* has described three types of managements especially for psychiatric and neuropsychiatric disorders viz; *Daihya Vyapshrya Chikitsa* (*Ayurvedic* psychotherapy) and *Yukti Vyapashraya Chikitsa* ( rational use of drugs, diet and activities) which includes *Sanshodhana* i.e. elimination of vitiated *doshas* by different types of drugs, diet and activities. In *Ayurveda*, drugs or diet articles that reverse or break the *Samprapti* (pathogenesis) without producing any side effects is consider as ideal. Although in modern medicine very effective antipsychotic drugs and advanced psychotherapy along with other treatment modalities are available but outcome is still not promising. Since from the ancient time *Ayurvedic* physician were managing the mental disabilities and they got success because they were manufacturing medicine by themselves or under their strict supervision. *Ayurveda* has many herbal and *herbo-mineral* formulations in different dosage form. Majority of these drugs are *Ghrita* preparations. *Bhavprakashana* has mentioned that *Ghrita* is *rasayana* and is good for health, stimulant for digestion, maintain glow and beauty enhances memory and stamina, longevity and protect body from diseases.

*Ghrita* preparation may have nootropic action as *Mastiska* (brain) is made up of *Meda* (fatty substance). *Medhya rasayana* drugs have specific effect on mental performance and on higher on central nervous system functions. It may be potential source for developing and improving psychotropic drugs to relieve stress, anxiety, and depression related to psychotic and neurotic disorders. Thus *Medhya rasayanas* act as brain tonics and promote mental health. *Medhya rasayanas* promotes function of *Buddhi* and *Manas* by correcting disturbing of *Rajas* and *Tamas* also. Beside above mentioned herbal and *herbo-mineral* formulations are described in various *Ayurvedic* text for management of mental disabilities. Different types of dosage forms make these formulation palatable to every children. The safety and efficacy of these drugs are depending upon manufacturing of these drugs as per described classical methods. By use of these drugs alone or in proper combination or as adjuvant to allopathic drugs we can not only control but also cure mental disabilities.

### Conclusion:

It is very unfortunate that in spite of that advancement in modern medicine today its success is very limited in context with neurological and psychiatric disorders due to multi factorial nature of these mental disabilities.

A fundamental theme of Ayurveda to treat mental disorders is to develop ones full mental potential through *Medhya Rasayanas* and herbs that provide power full nourishment to the mind. *Medhya Rasayanas* enhances *dhi*, *dhriti* and *smriti* individually and improves coordination between various mental factors.

Children are pillars of society. *Medhya Rasayanas*, Yoga, Meditation and *Panchakarma* therapy helps mentally subnormal children to contribute healthy nation.

### References:

- Sharma P.H, Kaashyapa Samhita Vimansthana, Hindi Commentary, Chaukhambha Sanskrit. Sansthan, Varanasi, India, 10<sup>th</sup> edition, 2005, page no 61.
- Prashant L. Patil, D.W. Raut, 'A clinical study on Samvardhana Ghrita and Saraswat Churna in children suffering from Balbuddhimandya w.s.r to mental Retardation. <http://ijapr.in> 2015;3[11]:39-46
- Acharya Jadavaji Trikamji (1994). Trisothiyam Adhyaya. In Charak Samhita of Agniseva elaborated by Charaka & Dridhabala with the Ayurveda Dipika Commentary by Chakrapani fourth edition. Chowkhambha Sanskrit Sansthan, Varanasi. P 108,313-314
- American Association for mental retardation,1983.
- Daily DK, Ardinger HH, Holmes GE (2000) . Identification and evaluation of mental retardation. AM Fam Physician 61 (4): 1059-6, 1070. PMID 10706158.
- Mash, E., 7 Wolfe, D. (2013), Abnormal child psychology, Fifth edition, Wadsworth Cengage learning, p 308-313.
- R. Antochi, C Stavrakaki, P C Emery (2003). Psychopharmacological treatments in persons with dual diagnosis of psychiatric disorders and developmental disabilities. Postgrad



- Med J, 79(929), p 139-146. Doi 10.1136/pmj.79.929.139.
8. Kessler RC. Prevalence, Severity and co-morbidit of twelve month DSM-IV disorders in the National Co-morbidity Survey Replication (NCS-R) Arch Gen Psychiatry, 2005, 62 (6); 617-627.
  9. Desai R. R., Ayurvediya Kriyasharir, Hindi Commentary, Kadambari Printers, Baidyanath Ayurveda Bhawan Ltd. Nagpur, India, 1<sup>st</sup> edition reprint 2010, page no. 838.
  10. R.P.Tiwari, S. R. Dwivedi, S.K. Khodre, R.K. Sasdu, Ramaiah Maddi. Mental/ psychological disorders in children and their therapy as per Auyrveda. [www.iaimjournal.com](http://www.iaimjournal.com) (IAIM), 2014;1(4):96-99.
  11. The Global Economic burden of non-communicable diseases. World economic forum. Geneva, 2011. Retrieved from : [http://apps.who.int/medicinedocs/en/d/Js/8806\\_en](http://apps.who.int/medicinedocs/en/d/Js/8806_en) [Accessed on :06/01/2017]
  12. Neeraj Tripathi, Ramanjuneeyulu, Beena Tiwari, Krishnaih N. An Ayurvedic management of manasa vikara with respect to ADHD in children. Ayurpharm Int J Ayur Alli Sci. 2017; 6(1) : 8-14.
  13. www.iaimjournal.com, 'Mental/psychological disorder in children and their therapy as per Ayurveda. By R.P Tiwari, S.R. Dwivedi. IAIM , 2014; 1(4) I 96-99
  14. Deepmala Y, Banshidhar B, Abhimanyu K. Role of Smriti-syrup-1 in reaction time of children. RRJMHS, 2013; 2(1): 40-45.
  15. Aguiar S, Borowski T. Neuropharmacological review of the nootropic herb Bacopa Monnier. Rejuvenation Res. 2013 Jun 17. [Epub Ahead of print]
  16. Singh HK, Dharwan BN: Neuropsychopharmacological effects of the Ayurvedic nootropic Bacopa monniera linn (Bramhi). Indian Journal of Pharmacology 1997, 29: S359-S365.
  17. Bhattacharya SK, Kumar A, Ghosal S: Effects of Bacopa monniera on animal models of Alzheimer's disease and perturbed central cholinergic markers of cognition in rats. Research Communications in Pharmacology and Toxicology 1999, 4(3&4):1-12
  18. Choudhary D et al. Efficacy and Safety of Ashwagandha Withania Somnifera L. Dunal Root Extract in Improving memory and cognitive functions. Journal of Dietary Supplements, 2017, DOI: 10.1080/19390211.2017:1284970.
  19. 20.Bhavaprakashnighantu (indian Materia medica) by Professor Krushnachanda Chunnekar, Chaukhamba Bharati Akadami, Varanasi 2013. Page no 448.
  20. Bhavaprakashnighantu (indian Materia medica) by Professor Krushnachanda Chunnekar, Chaukhamba Bharati Akadami, Varanasi 2013. Page no 440.
  21. Charak Samhita, Uttrardha, chikitsasthana 10/25. Dr. Bramhananda Tripathi, Chaukhamba Surbharati prakashan, Varanasi 2009, page no 411.
  22. Charak Samhita, Uttrardha, chikitsasthana 9/42-44. Dr. Bramhananda Tripathi, Chaukhamba Surbharati prakashan, Varanasi 2009, page no 391.



23. Charak Samhita, Uttrardha, chikitsasthana 10/17. Dr. Bramhananda Tripathi, Chaukhamba Surbharati prakashan, Varanasi 2009, page no 410.
24. Bhaishajyaratnavali by Ambikadattshastri, Rasayana Prakaran 73/182-195 Chaukhamba Sanskrit Sansthana, edi. 2001. Page no.775.
25. Charak Samhita, Uttrardha, chikitsasthana Rasayanadhyaya(1/1)/41-57. Dr. Bramhananda Tripathi, Chaukhamba Surbharati prakashan, Varanasi 2009, page no 17.
26. Bhaishajyaratnavali by Ambikadattshastri, Murccharog chikitsa 21/15-21. Chaukhamba Sanskrit Sansthana, edi. 2001. Page no.355.
27. Sharma P.H., Kaashyap Samhita sutrasthana, Hindi commentary, 10<sup>th</sup> edition, 2005 Chaukhamba Sanskrit Sansthana, Varanasi, India, page no. 6.

**Cite article:**

*Ayurveda for mentally challenged children: A review literature  
Chordiya Harshad L. Ratnaparkhi Karuna S.*

**Ayurlog: National Journal of Research in Ayurved Science- 2019; (7)(1): 1-9**

