ISSN (O): 2583-2158

KNOW Homoeopathy Journal
Bi-Annual, Indexed, Double-Blind, Peer-Reviewed, Research Scholarly, Online Journal in Field of Homoeopathy

KNOW Homoeopathy Journal Vol–4 & Issue-2, 18 October 2024, Published at https://www.knowhomoeopathyjournal.com/2024/10/volume-4-issue-2.html, Pages: 209-219, Title: Global Developmental Delay and its Homoeopathic Management, Authored By: Dr. Lalit Kumar Chauhan (M.D. scholar, Department of Repertory, Bakson Homoeopathic Medical College, Noida, Uttar Pradesh, India.) & Co-Authored By: Dr. Shakti Priya (M.D. scholar, Department of Organon of Medicine, Bakson Homoeopathic Medical College, Greater Noida, Uttar Pradesh, India.)

VOLUME-4 ISSUE-2
OCTOBER 2024

ARTICLE

Title: Global developmental delay and its homoeopathic management

Authored By: Dr. Lalit Kumar Chauhan[1] & Co-Authored By: Dr. Shakti Priya[2]

[1] M.D. scholar, Department of Repertory, Bakson Homoeopathic Medical College & Hospital, Greater Noida, Uttar Pradesh, India.

[2] M.D. scholar, Department of Organon of Medicine, Bakson Homoeopathic Medical College Hospital, Greater Noida, Uttar Pradesh, India.

ABSTRACT

Global developmental delay (GDD) involves significant delays in achieving milestones in motor skills, speech, cognition, social interactions, and daily activities. Diagnosed in children under five years old, GDD requires delays in at least two areas and is classified by severity as mild, moderate, or severe. Effective management demands a personalized approach addressing both mental and physical development. Tailored interventions, such as assistive technology, counseling, therapy, and educational programs, enhance development. Homoeopathic remedies offer a holistic approach, addressing delays while considering each child's unique needs, significantly improving their developmental progress and well-being.

Keywords:

Delayed milestones, Global Developmental Delay, GDD, Homoeopathy

ISSN (O): 2583-2158

Received: 28/07/2024 Accepted: 17/09/2024 Published: 18/10/2024

How to cite this case article:
Chauhan L, Priya S. Global developmental delay and its homoeopathic management, 2024; 4(2):209-219, available at https://www.knowhomoeopathyjournal.com/2024/10/Global-developmental-delay-and-its-homoeopathic-management.html

INTRODUCTION

Development is a multifaceted process during which individuals gain the skills required for effective functioning in social environments.. This journey begins in childhood and continues throughout life, with the majority of developmental milestones occurring within the first few years.[1] Global developmental delay is the significant delay in achieving developmental milestones at the expected age. Developmental milestones include Gross/Fine motor skills, Speech/Language, Cognition, Social/personal, and Daily life activities.[2] Developmental delay can be in single domain (isolated developmental delay) or multiple areas.[3] When the child under the age of 5 years is significantly behind in at least two or more areas of milestone development then it is considered a global developmental delay.[4] However, in practice, GDD term is used when the child has both motor delay and a delay in at least two other areas of developmental performance.[5] The degree of developmental delay is further classified as mild (functional age < 33% below chronological age), moderate (functional age 34% -66% of chronological age), and severe (functional age < 66% of chronological age).[6]

Other developmental issues:[3]

Developmental Disorders: Development deviates from the normal pattern. For example, a child with autism may develop language abilities but struggle to use them for social interaction and communication.

Developmental Arrest and Regression: After a period of normal development, a child fails to acquire new skills or loses previously acquired skills. Regression is a critical warning sign that requires urgent specialist referral for further evaluation and management.

Developmental Disability: This involves severe, lifelong impairments in areas such as learning, self-sufficiency, and adaptive skills. Not all children with developmental delay will have a developmental disability.

Transient vs. Persistent Delays: Developmental delays can be temporary, occurring during periods of prolonged illness, or persistent, indicating a more ongoing issue.

The DSM-5 specifies the following about global developmental delay (GDD) [7-8]:

1. **Classification**: GDD is identified as a neurodevelopmental disorder.
2. **Diagnostic Criteria**:
    - **Significant Delays**: The DSM-5 emphasizes that GDD involves substantial developmental delays, defined as performance at least two standard deviations below the mean on standardized developmental tests.
    - **Differentiation**: This criterion serves to distinguish GDD from milder or isolated delays in specific

ISSN (O): 2583-2158

developmental domains.

3. **Age Consideration**:
    - **Diagnosis for Young Children**: GDD is a diagnosis reserved for children under the age of 5 years.

Transition to Intellectual Disability: For individuals over 5 years old exhibiting similar extensive deficits in adaptive and intellectual functioning, the diagnosis changes to intellectual disability

Table 1: Prevalence of Global Developmental Delay

CATEGORY	PREVALENCE
Overall development disability	Estimated 5-10% of all children have some form of developmental issue [9]
Delayed milestones in children < 5 years	With a prevalence rate of 1-3% globally, GDD is one of the most common problem found in pediatrics.[6]
Prevalence by country:	
• India	- The prevalence of developmental delay is 7.9% among rural children under the age of two [10] - Studies have reported a range of prevalence for developmental delay from 1.5% to 19.8% [11-12]
• Turkey	6.4% prevalence rate [13]
• Nepal	56.4 % prevalence rate [14]
• Iran	8.6% prevalence rate [15]
Gender differences	Boys have an estimated 30% higher incidence of global developmental delay compared to girls (gap narrows with age) [16]

ETIOLOGY:

Conditions which may lead to developmental delayed are:

Table 2: Etiology of Global Developmental Delay[17-23]

GENETIC CAUSES:	ACQUIRED CAUSES:
• Metabolic disorders • Down syndrome (trisomy 21) • Cerebral dysgenesis • Fragile X syndrome (FMR1 gene, CGG triplet repeat expansion, X- linked inheritance). • Rett syndrome (MECP2 gene mutation) • 22q11 deletion syndrome i.e. DiGeorge syndrome and velocardiofacial syndrome. • Neurocutaneous syndromes i.e. neurofibromatosis type 1, tuberous sclerosis etc.	➢ Perinatal causes: • Exposure to teratogens or toxins (tobacco, alcohol, illicit drugs) • Hypoxic ischemic encephalopathy • Prematurity • Birth trauma • Encephalopathy/meningitis/encephalitis sequelae ➢ Postnatal causes- • Hypothyroidism • Brain tumor • Infantile tremor syndrome • Nutritional deficiencies such as iodine, vitamin B12, thiamine deficiency • Toxins like lead poisoning

ISSN (O): 2583-2158

A study by Gupta S, Shrivastava P, and colleagues found that factors such as the mother's education, family socioeconomic status, parity, child gender, and birth weight are significantly linked to developmental delay. In contrast, gestational duration, maternal age at delivery, and mode of delivery were not significantly associated with developmental delay. [24]

Significant Missed Milestones Warranting Intervention: [25]

Table 3: Important Developmental Red Flags Requiring Intervention

AGE	MISSED MILESTONES DEMANDING INTERVENTION
2 months	-Absence of visual fixation - No social smiling
4-6 months	- Inability to track objects - Lack of head control - No response to sound or voice
6 months	- Reduced vocalizations
9-12 months	- Unable to sit unaided
18 months	- Difficulty walking independently - No shared attention with caregiver
24 months	- Absence of single words
36 months	- No use of three-word sentences - Difficulty following simple instructions
>3 years	- Speech not intelligible - Dependence on gestures for communication

GUIDELINES FOR DIAGNOSIS AND MANAGEMENT OF THE GDD [26]:

Global Developmental Delay (GDD) is a neurodevelopmental disorder that occurs with considerable frequency. Due to the limited amount of published research and the lack of standardized guidelines, the Indian Academy of Pediatrics (IAP) established seven subcommittees comprising experts in the field. These subcommittees reviewed the available literature, identified key issues, and developed guidelines after multiple rounds of discussion. The finalized guidelines were subsequently approved by the IAP's executive board.

GUIDELINES:

Table 4: Guidelines for Diagnosis and management of the GDD

1.	DEFINITION AND SEVERITY OF GDD	
1A.	Definition	• Significant delay (≥ 2 SD below mean) in ≥ 2 developmental domains (gross/fine motor, speech/language, cognition, social/personal, activities of daily life) in < 5yo. • Exclusion criteria: if delay in two or more domains are primarily due to motor or severe uncorrected visual or hearing impairments.

ISSN (O): 2583-2158

1B.	In the case of GDD and coexistent Psychosocial Deprivation	Provide stimulation, reassess after 6-9 months before GDD diagnosis.
1C.	Severity	Mild, with a standard quotient (SQ) ranging from 55 to 70; Moderate, with an SQ between 36 and 54; Severe, with an SQ from 21 to 35; and Profound, with an SQ below 20.
2.	**DEVELOPMENTAL SURVEILLANCE AND SCREENING**	
2A.	Surveillance	Regular developmental monitoring should continue until age 2, conducted during immunization visits and employing milestone questions appropriate for the child's age.
2B.	Screening	Developmental screening with standardized tools is advised at 9 to 12 months, 18 to 24 months, and again when the child begins school.
2C.	Screening for high risk infants	Monitoring and screening are recommended at the following intervals: between 4 to 6 months, 9 to 12 months, 18 to 24 months, and then annually until the child reaches 5 years old, with an additional screening upon entering school.
2D.	Autism spectrum disorder Screening	For Children diagnosed with GDD; At 18-24month (as per ASD screening guidelines), if negative, re-screen at 3 year of age.
3.	**CLINICAL EVALUATION**	
3A.	Assessment	A thorough evaluation should include a detailed history, a clinical examination to assess developmental delay, and an investigation into potential etiological factors and any comorbidities.
3B.	Diagnosis	A definitive diagnosis of GDD should be established using standardized developmental assessment tests.
4.	**INVESTIGATIONS**	
4A.	History and examination	Investigations should be directed by a comprehensive history and thorough examination in order to design focused and relevant tests.
4B.	Vision/Hearing screening	Screening recommended before developmental tests in all cases.
4C.	Neuroimaging	MRI/MRS preferred if specific clinical indicators present.
4D.	EEG	Only for children with suspected epilepsy/epileptic syndromes
4E.	Biochemical/Metabolic	To identify treatable condition causing GDD
4E.1	Thyroid Function test	Evaluate all children with global developmental delay , particularly if newborn screening results are unavailable. For high-risk or symptomatic children, such as those with Down syndrome, repeat evaluations regularly.
4E.2	Biotinidase Deficiency	Rule out, especially if no newborn screening performed

ISSN (O): 2583-2158

4E.3	Iron and B12 Deficiency	Consider even in the absence of other indicative signs.
4E.4	Lead Levels	Advised in situations where there is a risk of environmental exposure.
4E.5	Creatinine Phosphokinase (CPK)	Suggested for young boys with unexplained global developmental delay .
4F.	Genetic Tests	If clinical suspicion of a genetic disorder or unclear etiology.
5.	**MANAGEMENT**	
5A.	Early intervention strategies for newborns identified as high-risk.	Neurodevelopmentally supportive care should be initiated in the NICU for infants who are at risk of developmental delay.
5B.	Management of treatable causes	Potentially treatable causes of global developmental delay should be identified and specific treatments initiated as early as possible.
5C.	Routine Health Care	Children with developmental delay should receive consistent health care interventions at every level of care.
5D.	Early developmental interventions	Start intervention promptly upon recognizing a delay, even before a formal diagnosis is made.
5E.	Co-morbidity Screening	Behavioral issues, epilepsy, CP, visual and hearing impairments, sleep disturbances; refer as needed.
5F.	Co-morbid Febrile Seizures	An EEG is indicated when there is a family history of epilepsy and/or complex febrile seizures. Prophylactic measures should be considered if risk factors are present.
5G.	Pre-school Education services	Children with global developmental delay should be provided with preschool education services in the least restrictive environment that is suitable for addressing their needs.
6.	**COUNSELLING**	
6A.	Counseling	Offer comprehensive family counseling at diagnosis and as new etiological info becomes available.
7.	**PROGNOSIS AND FOLLOW-UP**	
7A.	Follow-Up	Consistent follow-up should address all domains and comorbidities; specialist consultation may be considered as needed..

DEVELOPMENTAL SCREENING AND ASSESSMENT TOOLS: [25]

Screening is a crucial, momentary assessment procedure that helps identify children needing more intensive analysis or assessment. Various developmental screening charts and parent-completed questionnaires, like the Parents' Evaluation of Developmental Status, are used for this purpose. An ideal screening tool should be reliable, simple, easy to administer, time-efficient, cost-effective, and culturally relevant. Developmental assessment tools include the Developmental Observation Card by SAT Hospital, the Child Development Centre Grading for Motor Milestones, and the Trivandrum Developmental Screening Chart. The Infants Developmental Assessment Scale (IDAS), based on the Bayley Scales of Infant Development, and the Developmental

ISSN (O): 2583-2158

Assessment Scale for Indian Infants (DASII) evaluate mental and motor development. Other tools, such as the Baroda Developmental Screening Test (BDST), Denver Developmental Screening Test II, and Clinical Adaptive Test and Clinical Linguistic and Auditory Milestone Scale (CAT/CLAMS), assess various developmental aspects. The Good Enough-Harris Drawing Test, a nonverbal intelligence test, and the Thiruvananthapuram Developmental Screening Chart, designed for large-scale community use, are also valuable in assessing developmental progress in children.

MANAGEMENT

The management of developmental delay in children requires a personalized approach that addresses both mental and physical aspects of their development. However, it's essential to recognize that each child is unique, developing in their own way and at their own pace. Effective management involves tailored interventions that consider individual strengths and weaknesses. A range of support services—including assistive technology, audiology, counseling, nursing, nutritional services, educational programs, occupational and physical therapy, as well as speech and linguistic therapy—provides comprehensive support to enhance child development and meet their specific needs.[27]

HOMOEOPATHIC MANAGEMENT [27-32]

Homoeopathic remedies selected based on constitutional symptoms plays a significant role in overcoming developmental delays and supporting normal growth. Medicines for delayed development: -

1. **Aethusa cynapium**
   Aethusa cynapium is often used for developmental delays in infants, particularly those struggling with head control. This remedy is indicated for children who exhibit extreme restlessness, excessive crying, and a significant intolerance to milk. Infants may experience symptoms such as vomiting, diarrhea, and overall weakness, which can lead to drowsiness and exhaustion. It is particularly useful when milk consumption results in violent vomiting of curdled milk and a yellow fluid, accompanied by a state of prostration and sleepiness. It is frequently recommended during periods of dentition or summer complaints when digestive issues and poor circulation are prominent.

2. **Agaricus muscarius**
   Agaricus muscarius is an effective remedy for children who exhibit delays in walking, talking, and learning. These children often have a slow mental development, leading to mistakes in speaking and writing as they grow older. They possess a very poor memory and are slow to comprehend new information, making them highly dependent on their parents. This remedy is particularly useful for addressing these developmental delays and helping to support overall cognitive and physical growth.

3. **Baryta carbonica**
   Baryta carbonica is a key remedy for children experiencing both mental and physical dwarfism, characterized by significant developmental delays. These children often appear dull-minded and slow to learn essential skills such as walking and talking. Baryta carbonica is particularly indicated for children who are excessively shy, fearful of strangers, and exhibit retarded development following trauma or vaccination. They may display extreme timidity, hiding behind their mother and avoiding play or social interactions. Such children often suffer from poor concentration, delayed milestones, and a tendency toward passive behavioral abnormalities, including unresponsiveness and stubbornness. Their development is frequently marked by a fear of change and insecurity, contributing to difficulties in adapting to new situations and tasks.

ISSN (O): 2583-2158

Baryta carbonica is especially suited for children who demonstrate a pronounced fear of people and frequent night terrors, coupled with a tendency to easily become irritated and sick.

4. **Calcarea carbonica**
Calcarea carbonica is a pivotal remedy for children exhibiting symptoms of calcium and phosphate metabolism deficiencies, leading to impaired bone development and structural abnormalities. These children often have a fatty, fair, and flabby constitution, characterized by a large head, big abdomen, and pale, chalky skin. They are typically sluggish, dull, and lethargic, with delayed milestones such as walking and dentition. A notable feature is delayed closure of fontanelles, particularly the anterior one. The remedy is also indicated for children who sweat excessively on the scalp, neck, and chest, often wetting their pillow while sleeping. Additional symptoms may include soft, rickety bones prone to fractures, curved legs, and a tendency toward obesity. Children may also show a craving for eggs and aversion to milk and meat, alongside unusual desires for indigestible substances. Calcarea carbonica is well-suited for those with slow development in both mental and physical aspects, presenting with slow ossification, curved spine, and grinding of teeth.

5. **Calcarea phosphorica**
Calcarea phosphorica is highly effective for delicate, thin, and emaciated children who exhibit notably slow progress in both physical and mental development. These children often experience delays in learning to walk and talk, with slow tooth development and a posterior fontanelle that may remain open longer than usual. Their skulls can be soft, thin, and brittle, reflecting a broader issue of impaired growth and cell repair. Calcarea phosphorica is indicated in cases of deficient assimilation and poor nutrition, leading to delayed development, brittle bones, non-union of bones and poor memory. It is also useful for addressing general weakness resulting from inadequate nutrition.

6. **Carcinosin**
Carcinosin is a valuable remedy for children experiencing arrested growth and developmental delays, particularly those with very low immunity who are prone to recurrent severe infections. It is effective in addressing difficulties with falling asleep, especially in children who need to be carried, rocked, or sleep on their abdomen. Carcinosin is also indicated for children with autism and developmental delays who exhibit marked hyperactivity and restless behavior. The remedy is believed to positively influence cases with a history of carcinoma or symptoms indicative of the disease. Children who benefit from Carcinosin may display a bluish tinge to the sclera, a brownish cafe-au-lait complexion, numerous pigmented moles, and may exhibit blinking eyes or unusual tics. They often prefer to sleep in the knee-elbow position, which can be another key indicator for this remedy.

7. **Natrium muriaticum**
Natrium muriaticum is particularly suited for children who are emotionally reserved and exhibit a delayed development in speech and walking. These children often make mistakes when speaking and struggle with heavy and difficult speech. They have a strong need for affection, and when this need is unmet, they can be significantly emotionally affected, contributing to their late talking. Physically, they may have weak ankles that turn easily, causing delays in learning to walk. Additionally, these children may experience significant emaciation, losing weight despite eating well, with rapid weight loss in the throat and neck during summer. They are highly susceptible to colds and display marked irritability, often becoming cross when spoken to, crying easily, and getting into passions over trifles, especially when consoled.

ISSN (O): 2583-2158

8. **Silicea**
   Silicea is a highly effective remedy for developmental delays, particularly in children with a large head and thin legs. These children often exhibit slow closure of sutures and fontanelles, along with emaciation and defective assimilation. They may have a distended abdomen, delays in learning to talk and walk, and are prone to worm infestations. Due to imperfect assimilation and consequent defective nutrition, these children often appear cold and chilly, seeking warmth and avoiding drafts. They tend to have cold hands and feet and their symptoms worsen in winter. Silicea helps to address these issues by supporting proper growth and development.

9. **Tuberculinum**
   Tuberculinum is an effective remedy for children who are weak, emaciated, and mentally deficient due to retarded development. These children typically experience delays in learning to speak and may exhibit excessive sweating, particularly at night. Symptoms include rapid emaciation, prolonged diarrhea, extreme wasting, bluish pallor, and exhaustion. Tuberculinum is also useful for addressing mental deficiencies, enlarged tonsils, and cold, clammy sweat on the upper parts of the body and hands. A distinctive symptom is shivering when beginning to sleep, along with cold feet in bed, which is common among those with low vital reaction. This remedy helps support overall growth and development while managing these specific symptoms.

CONCLUSION

The management of developmental delay in children requires a personalized approach that addresses both mental and physical aspects of development. Each child develops uniquely, so tailored interventions that consider individual strengths and weaknesses are crucial. Support services like assistive technology, counseling, therapy, and educational programs enhance development. Homoeopathic remedies offer a holistic approach, addressing both physical and mental delays while considering each child's constitutional needs. Through individualized treatment plans, homoeopathy can significantly improve the developmental progress and overall well-being of children with developmental delays.

REFERENCES

1. Illingworth RS, Nair MKC, Russell P, editors. The development of the infant and young child: normal and abnormal. 10th ed. Elsevier; 2012. p. 408.
2. Majnemer A, Shevell MI. Diagnostic yield of the neurologic assessment of the developmentally delayed child. J Pediatr. 1995;127:193-9.
3. Choo YY, Agarwal P, How CH, Yeleswarapu SP. Developmental delay: identification and management at primary care level. Singapore Med J. 2019 Mar;60(3):119-23. doi: 10.11622/smedj.2019025. PMID: 30997518; PMCID: PMC6441684.
4. Shevell MI, Majnemer A, Rosenbaum P, et al. Etiologic yield of subspecialists' evaluation of young children with global developmental delay. J Pediatr. 2000;136:593-8.
5. Gokak SC, Korawar S. A case of global developmental delay (GDD) responding positively to homoeopathic treatment. Int J Homoeopath Sci. 2022;6(4):21-7..
6. Mithyantha R, Kneen R, McCann E, et al. Developmental delay: timely identification and assessment. Arch Dis Child. 2017;102:1071-6.
7. Francoeur E, Ghosh S, Reynolds K, Robins R. An international journey in search of diagnostic clarity: early developmental impairment. J Dev Behav Pediatr. 2010 May;31(4):338-40.
8. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Arlington: American Psychiatric Publishing; 2013.p. 31,41,42,48,49
9. Patel N. Global developmental delay: holistic evidence-based homoeopathic approach. 2019. Available from: https://hpathy.com/homeopathypapers/global-developmental-delay-holisticevidence-based-homoeopathic-approach/ [Last accessed: July 27,2024]

ISSN (O): 2583-2158

10. Bhattacharya T, Ray S, Das DK. Developmental delay among children below two years of age: a cross-sectional study in a community development block of Burdwan district, West Bengal. Int J Community Med Public Health. 2017;4:1762-7.
11. Nair MK, George B, Philip E. Trivandrum Developmental Screening Chart. Indian Pediatr. 1991;28:869-72.
12. Wondmagegn T, Girma B, Habtemariam Y. Prevalence and determinants of developmental delay among children in low- and middle-income countries: a systematic review and meta-analysis. Front Public Health. 2024;12:1301524.
13. Demirci A, Kartal M. The prevalence of developmental delay among children aged 3-60 months in Izmir, Turkey. Child Care Health Dev. 2016;42:213-9.
14. Bishwokarma A, Shrestha D, Bhujel K, Chand N, Adhikari L, Kaphle M, et al. Developmental delay and its associated factors among children under five years in urban slums of Nepal. PLoS One. 2022;17.
15. Shaahmadi F, Khushemehri G, Arefi Z, Karimyan A, Heidari F. Developmental delay and its effective factors in children aged 4 to 12 months. Int J Pediatr. 2015;3:396-402.
16. Kishore MT, Udipi GA, Seshadri SP. Clinical practice guidelines for assessment and management of intellectual disability. Indian J Psychiatry. 2019;61:194-210.
17. Thomaidis L, Zantopoulos G, Kossiva L, Syrogiannopoulos GA, Vounatsou M, Papadopoulou V, et al. Predictors of severity and outcome of global developmental delay without definitive etiologic yield: a prospective observational study. BMC Pediatr. 2014;14(40):2-7.
18. Bellman M, Byrne O, Sege R. Developmental assessment of children. BMJ. 2013 Jan 15;346
19. Choo YY, Agarwal P, How CH, Yeleswarapu SP. Developmental delay: identification and management at primary care level. Singapore Med J. 2019 Mar;60(3):119-23.
20. Donald KA, Wedderburn CJ, Barnett W, Nhapi RT, Rehman AM, Stadler JAM, Hoffman N, Koen N, Zar HJ, Stein DJ. Risk and protective factors for child development: An observational South African birth cohort. PLoS Med. 2019 Sep 27;16(9):e1002920.
21. Moeschler JB, Shevell M., Committee on Genetics. Comprehensive evaluation of the child with intellectual disability or global developmental delays. Pediatrics. 2014 Sep;134(3):903-18.
22. Hagerman RJ, Berry-Kravis E, Kaufmann WE, Ono MY, Tartaglia N, Lachiewicz A, et al. Advances in the treatment of fragile X syndrome. Pediatrics. 2009 Jan;123(1):378-90.
23. Miclea D, Peca L, Cuzmici Z, Pop IV. Genetic testing in patients with global developmental delay/intellectual disabilities: a review. Clujul Med. 2015;88(3):288-92.
24. Gupta S, Shrivastava P, Samsuzzaman M, Banerjee N, Das DK. Developmental delay among children under two years of age in slums of Burdwan Municipality: a cross-sectional study. J Family Med Prim Care. 2021 May;10(5):1945-9.
25. Mary DBH, Sevaghan KS, Mary BT, Kumar VS. Evaluate the scope of homoeopathy in improving head holding in children with global developmental delay: a case series study. Madhya Bharti. 2022;82(11):197-204.
26. Juneja M, Gupta A, Sairam S, et al. Diagnosis and management of global development delay: consensus guidelines of Growth, Development and Behavioral Pediatrics Chapter, Neurology Chapter, and Neurodevelopment Pediatrics Chapter of the Indian Academy of Pediatrics. Indian Pediatr. 2022 May 15;59(5):401-15. Epub 2022 Feb 19. PMID: 35188106.
27. Master JF. The homoeopathic management of delayed milestones. Homoeopath Herit. 2011;37(6):6-14.
28. Boericke W. Pocket Manual of Homoeopathic Materia Medica. 9th ed. New Delhi: IBPP; 2015. p.18,20,106,144,146,152,179,459,590,655
29. Allen HC. Keynotes and characteristics with comparison and bowel nosodes. New Delhi: Indian Books and Periodical Publishers; 2014.p.8,9,10,45,60,61,62,178,239,240,270, 271

ISSN (O): 2583-2158

30. Bailey PM. Homoeopathic psychology: personality profiles of the major constitutional remedies. 7th ed. New Delhi: B Jain Publishers (P) Ltd; 2010.p.35,36,46,54,176,177,396
31. Vyas P, Gupta N, Sharma R. Scope of homoeopathy in management of delayed milestones in children. J Med Pharm Innov. 2020;7(37):19-21.
32. Kent JT. Lectures on Homoeopathic Materia Medica. 22nd ed. New Delhi: B Jain Publishers (P) Ltd; 2021.p.43
33. Borland DM. Children's types. 2nd ed. BHA Book Service; 1997.p.2,4,5,8,12