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Research

Effectiveness of Homoeopathic Constitutional Medicine In Improving Growth Standards In Children With Reference To WHO & IAP – Pediatric Growth Chart

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Abstract

Background: Persistent inadequate calorie intake can hinder children's growth, leading to a cumulative impact on linear growth. This global concern manifests as stunted height growth and subsequent weight loss, known as wasting, indicative of acute malnutrition.
Aim and Objectives: This study sought to evaluate the efficacy of homoeopathic constitutional medicine in promoting children's development, using WHO and IAP development charts as benchmarks. The primary goal was to assess the impact of homoeopathic treatment on children's growth trajectories.
Material and Methods: A prospective interventional study included 70 children aged 1 to 18 years exhibiting growth variations according to WHO and IAP Growth Charts. Medication tailored to constitutional totality was administered, with regular follow-ups and nutritional guidance. Anthropometric measurements were recorded at intervals, and statistical analyses compared pre- and post-treatment growth parameters. **Results:** The study demonstrated the effectiveness of homoeopathy in addressing suboptimal growth standards. The t-test indicated a statistically significant difference in growth percentiles before and after treatment (p-value < 0.05), supporting the hypothesis that homoeopathy is beneficial in improving children's weight.
Conclusion: Homoeopathic constitutional medicine shows promise in enhancing children's growth standards in line with WHO and IAP recommendations. These findings highlight homoeopathy as a potential supplementary therapy for addressing pediatric growth issues.

Keywords: Child, growth chart, IAP, India.

INTRODUCTION

Numerous alternative treatments have been investigated because of the healthcare industry's search for complete and effective treatment techniques. One such alternative method that has gained popularity over time is homoeopathy, a medical practice based on the idea that "like cures like". In the field of pediatrics, where the well-being of children relies heavily on growth and development, there has been considerable attention and debate surrounding the potential of homeopathic constitutional medicine to enhance growth standards.

What is "normal growth" in children?

Increases in size and anatomical structure are referred to as growth and are quantified by factors like height, weight, head circumference, and bone age. Development is a growth in both structural and functional complexity and function.

What is malnutrition?

Addressing malnutrition involves tackling a situation in which an individual's nutritional intake is insufficient, resulting in adverse health effects. This deficiency can present itself as undernutrition, stemming from a lack of necessary calories and nutrients due to inadequate consumption of specific elements. This inadequacy can contribute to issues such as impaired growth, compromised immune function, and various other health complications.

What are "low growth standards" in children?

Low growth standards in children refer to measurements indicating below-average height or weight for a specific age group. These standards are typically established by observing the growth patterns of a healthy population. Children falling below these norms may be considered smaller or lighter than their peers, potentially indicating developmental or nutritional concerns.

Aim & Objective of the Study

- To determine the efficacy of homoeopathic constitutional medicine in increasing children's growth standards.
- To comprehend the most prevalent pathological problems associated with underweight children.
- The major goal was to assess the effect of homoeopathic treatment on the growth trajectory of children.

MATERIAL AND METHODOLOGY

Research Setting: The study was conducted at the Outpatient Department (OPD) of Sri Ganganagar Homeopathic Medical College, Hospital, and Research Institute in Sri Ganganagar, Rajasthan.
Sample Size: A total of 70 cases were included in the study.
Sampling Technique: Purposive Sampling was employed to select the cases.
Demographics: The research focused on both male and female participants within the age range of 1-18 years.
Inclusion Criteria: The sample was chosen based on the weight and height of children, and their willingness to receive homeopathic treatment.
Exclusion criteria: Children having normal weight and overweight, having severe systemic diseases, lies below age groups below 1 year and above 18years were excluded. Also, if any physiological or environmental factor found or any genetically retarded or mentally disabled children were excluded.
Duration of Study: Duration of study is 1 year.
Remedy Selection Process: Chosen following a thorough repertorization process and validated through consultation of Materia Medica.
Remedy Procurement: Acquired from the pharmacy affiliated with Sri Ganganagar Homeopathic Medical College, Hospital, and Research Institute, Sri Ganganagar.
Remedy Administration: The selection of potency, application, and repetition of the prescribed medicine(s) was tailored to the specific case and project requirements.
Conducting Investigations: All necessary investigations were conducted within the facilities of this institute.

RESULTS AND DISCUSSION

As a result of India's economic and nutritional transformation, the growth trends among Indian children have undergone changes in recent years. A significant proportion, 20% of children below the age of five, faced underweight conditions attributed to malnutrition. Chronic malnutrition affected 43% of this demographic, while 48% experienced stunted growth. Constitutional challenges, including poor dietary practices, behavioral

disorders, and genetic factors, have played a role in contributing to these conditions within certain segments of the population. Efficient interventions can be implemented to address these issues.

Causes

Causes of low growth or stunted growth in children are:

Child-Related Issues

- Neonatal jaundice
- Behavioral problems in children
- Disorders of appetite.

Parent-Related Issues

- Parental reactions to pregnancy
- Emotional bond between child and mother
- Effects of maternal depression or drug addiction
- Consequences of early motherhood.

Signs of Child Abuse

- Presence of multiple bruises
- Occurrence of multiple fractures at different stages of healing.

Signs of Physical Neglect

- Unclean or untidy nails
- Skin infections
- Diaper rash
- Alopecia (hair loss)
- Flat occiput (back of the head).

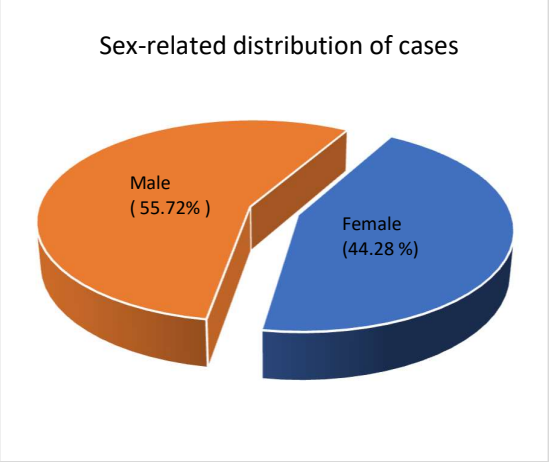
Family History Factors

- Absence of the mother
- Poverty
- Illiteracy
- Unemployment among parents.

The cases were distributing on various parameters such as:

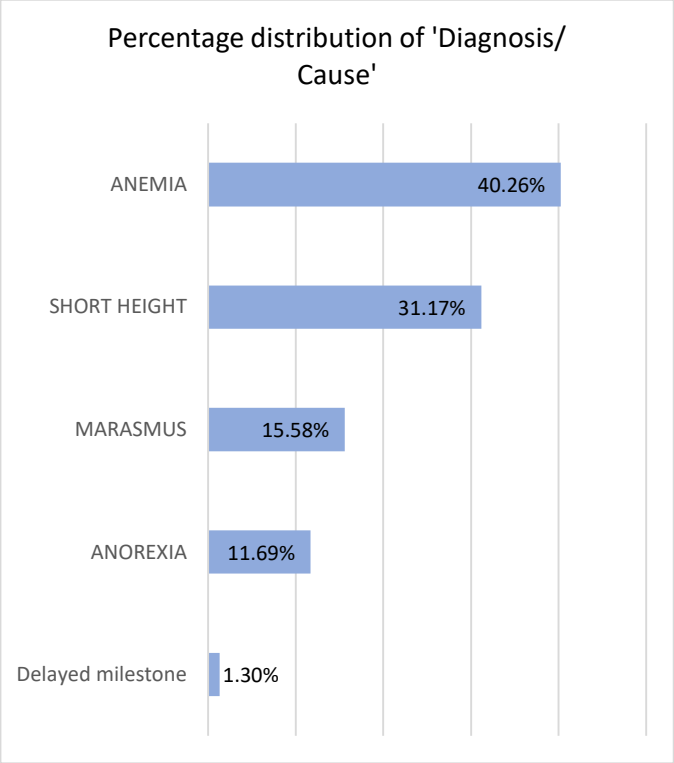
Based on sex

Among 70 cases 39 (55.72 %) were male and 31 (44.28 %) were female.



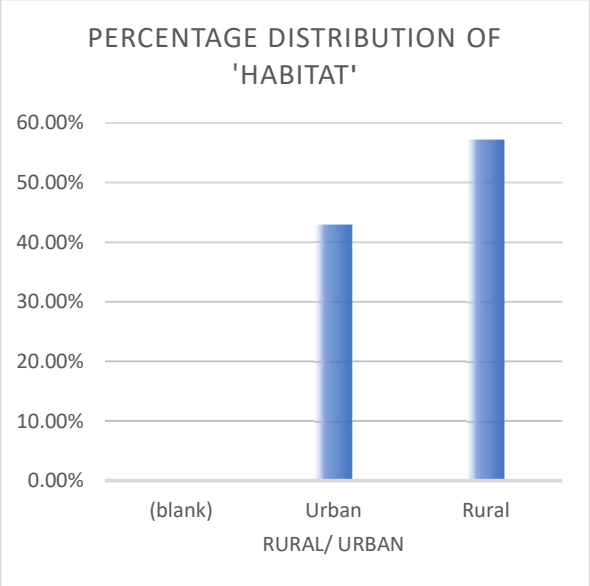
Based on Diagnosis / Cause

Out of 70 cases the probable cause of patient with underweight were 24 patients of 40.26% having Anemia, 12 patients of 15.58% having Marasmus, 24 patients of 31.17% having a short height, 9 patients of 11.69% having Anorexia and 1 patient of 1.30% having Delayed milestone.



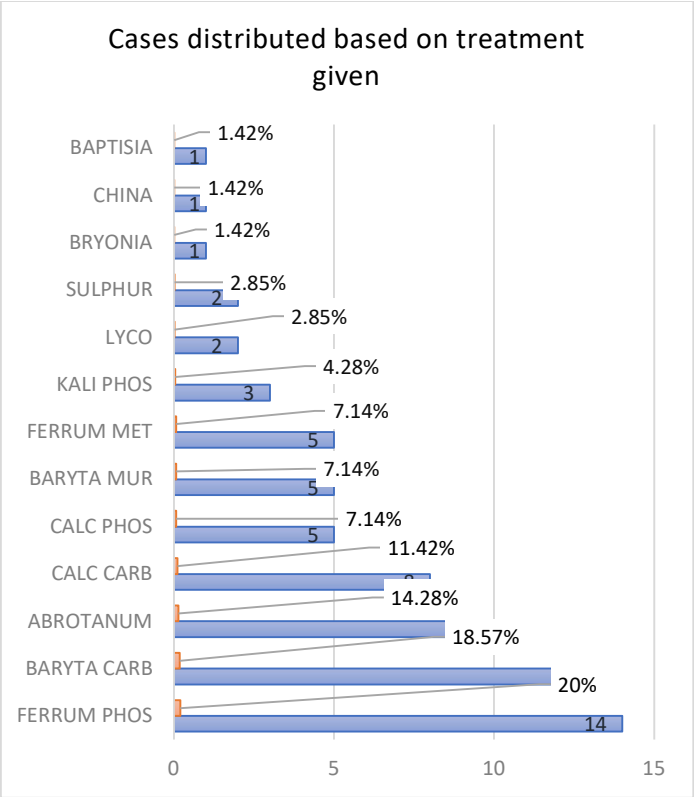
Based on Habitat

Among 70 patients, out of these patients 40 patients of 57.14% are from rural areas and 30 patients of 42.86 % are from urban.



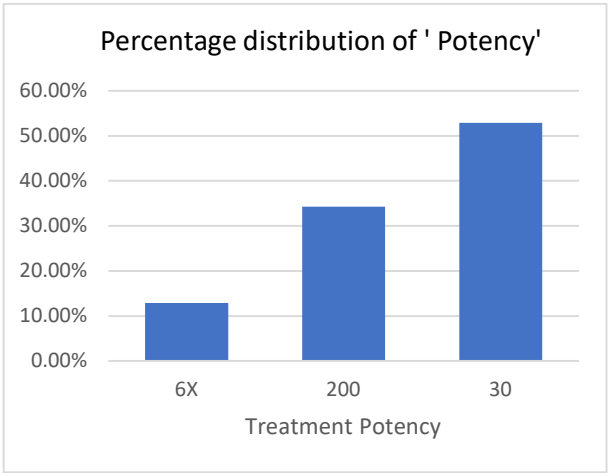
Based on treatment

To all the 70 patients, treatment was given according to their condition and among the 70 patients the medicines which has maximum used was Ferrum Phos i.e., 20 %.



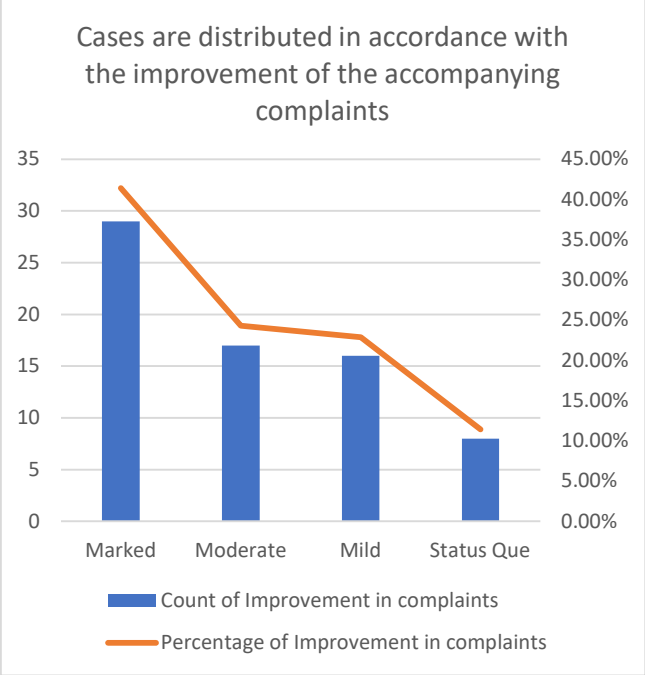
Based on Potency

To all the 70 patients, treatment was given according to their condition and the medicines were used with different potencies such as 200, 30 and 6X.



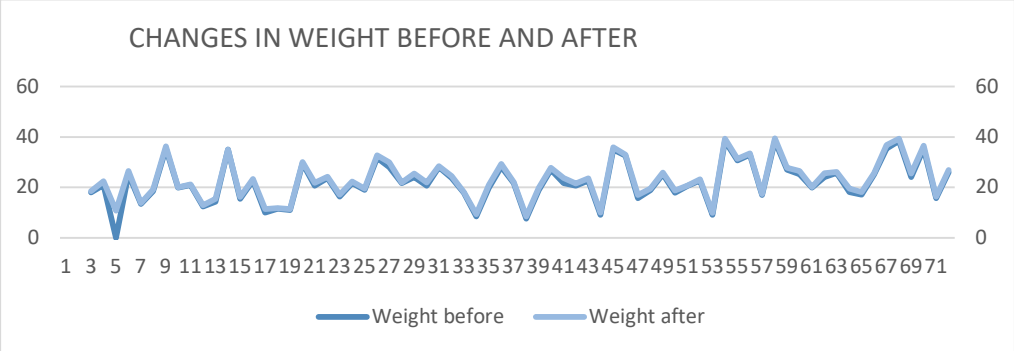
Based on improvement of accompanied complaints

Out of 70 cases 29 patients of 41.43% having marked improvement, 17 patients of 24.28% having moderate improvement, 16 patients of 22.86% having mild improvement and 8 patients of 11.43% had status que.



Cases classified according to the changes in weight and height (before and after)

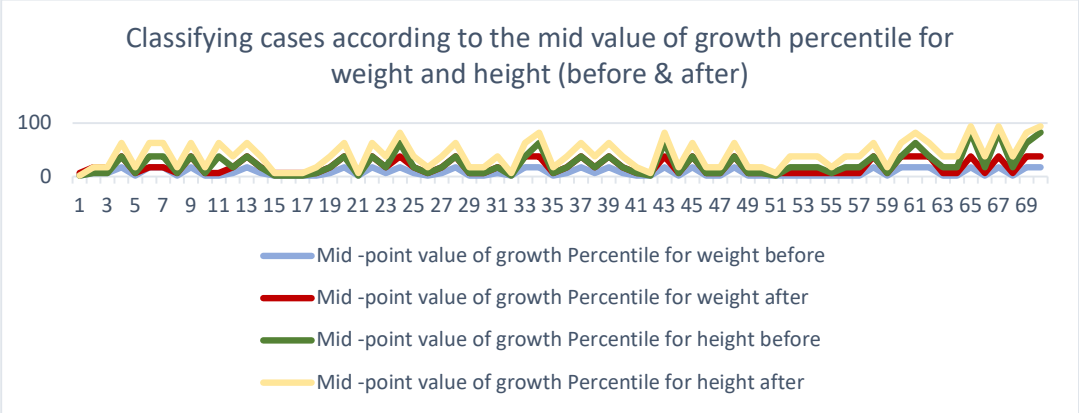
Cases according to the changes in weight and height (before and after) of all the 70 patients and further information is given graph below.





Cases classified according to the mid value of growth percentile for weight and height (before & after)

When examining growth percentiles, it is evident that, in most instances prior to the study, the weight percentile does not align with that of height. However, post-treatment, there is a noticeable enhancement in weight surpassing that of height, indicating a more pronounced improvement in weight with a corresponding adjustment in height.



Risk Factors

Children who do not meet developmental standards are at risk for malnutrition may have following risk factors:

- Delayed menstruation or cause infertility in children.
- Reducing the body's ability to control its own temperature, it can also have a detrimental impact by causing drowsiness, irritability, concentration loss, and other symptoms.
- Underweight children have a weakened immune system, which increases their susceptibility to diseases and infections.
- Lower levels of white blood cell production and virus-specific antibody responses are all associated with low body mass index (BMI), malnutrition, and protein deficiency.
- Lack of calcium in a child's diet can lead to bone loss since the body obtains its calcium from the bones.
- Low amounts of the hormone that strengthens bones are another effect of malnutrition.
- Children who are underweight are more likely to be inactive and unfit, which raises their risk of cardiovascular disease. Some kids are more susceptible to heart failure, arrhythmias, and cardiovascular anomalies such mitral valve prolapse.
- Anemia due to a lack of iron.

Symptoms and Clinical Manifestations

Low or stunted growth in children, also known as stunting, is characterized by a failure to reach the expected height for age. Symptoms include:

- Emaciation
- Weakness
- Dizziness
- Lack of concentration
- Low body weight
- BMI >18.5
- Vulnerable to infection
- Loss of menstruation

Clinical applications include

Early Detection of Health Issues: Growth charts identifies growth stalls, dietary shortages, hormonal imbalances, and probable developmental issues.

Monitoring Growth abnormalities: Growth charts can be used to examine the effectiveness of therapy in children such as short height or obesity.

Pediatric Care: Pediatricians utilize growth charts to check a child's overall health and development.

Complications

Stunted or low growth in children can result from various factors, and it's important to address them early for proper intervention and support. Here are few potential complications of low or stunted growth in children:

a. **Nutritional Deficiencies:** Stunted growth specially occurs during crucial developmental stages.
b. **Chronic Illnesses:** Persistent illnesses, such as untreated infections, gastrointestinal disorders, or hormonal imbalances.
c. **Genetic factors**: If a child inherits genes associated with shorter stature.
d. **Hormonal Imbalances:** Such as growth hormone deficiency or thyroid disorders.
e. **Environmental Factors:** Exposure to toxins, pollution, or living in socioeconomically disadvantaged areas with limited access to healthcare and nutritious food.

Investigations

Only when a history and physical examination indicate the presence of an organic pathology are investigations conducted.

Hematology and Biochemistry Investigations

- Complete Blood Count (CBC)
- Hemoglobin (Hb) Levels
- Erythrocyte Sedimentation Rate (ESR)

Urinary Analysis

- Routine Urinalysis
- Microscopic Examination of Urine
- Urine Culture

Stool Examination

- Routine Stool Analysis
- Microscopic Examination for Pylori and Giardia
- pH Measurement
- Additional Testing for HIV, Tuberculosis, Hepatitis Panel

Imaging and Diagnostic Tests

- Chest X-ray
- Mantoux Test
- Serum Electrolyte Levels
- Liver Function Tests (LFT)

Thyroid Function Testing

- Triiodothyronine (T3)
- Thyroxine (T4)
- Thyroid-Stimulating Hormone (TSH)

Comprehensive Organ Function Tests

- Kidney Function Tests (Electrolytes, Creatinine, Glucose)
- Liver Function Tests (Calcium, Phosphorus, Magnesium, Albumin, Total Protein, Liver Enzymes)
- Pancreatic Function Tests (Amylase, Lipase)

Gastrointestinal Assessments:

- Upper Gastrointestinal Imaging Series
- Endoscopic Studies
- Biopsy Procedures

Management and Treatment

It's important to note that the management of stunted growth in children requires a multidisciplinary approach involving healthcare professionals, nutritionists, and parents or caregivers.

Allopathic approach: Allopathic treatment for low or stunted growth in children typically involves addressing underlying medical conditions, such as growth hormone deficiencies or nutritional deficiencies. Medical professionals may prescribe growth hormone therapy, nutritional supplements, or other interventions to support optimal growth and development in children.

Ayurvedic approach: Ayurveda addresses low or stunted growth in children through a holistic approach. Emphasizing balanced nutrition, specific herbs like Ashwagandha promote overall well-being, enhancing digestion and assimilation. Lifestyle recommendations include adequate sleep, regular exercise, and stress management to nurture physical and mental development, fostering optimal growth**.**

Homeopathic approach: Homoeopathy revolves around the principle of individualizing patient care. The identification of the similimum, or the most suitable remedy, is determined through a comprehensive assessment of the totality of symptoms across both mental and physical dimensions. Dr. Hahnemann emphasized the significance of characteristic symptoms, which are described as those that are particularly notable, unique,

uncommon, and distinctive. This approach aims to tailor the treatment to the specific characteristics of each patient, ensuring a more precise and effective therapeutic outcome.

Homeopathy in Symptom Management

Some homoeopathic medicines which are important for improving the growth standard are mentioned below:

1. Emaciated children (especially downwards): For children which are underweight or emaciated medicines like:

Calcarea Carbonica: Calcarea Carbonica benefits emaciated children by promoting healthy weight gain, improving appetite, and enhancing overall growth and development.

Calcarea Phosphorica: Recommended for emaciated children, promoting healthy growth, strengthening bones, and improving overall vitality and constitution.

Lycopodium: Lycopodium aids emaciated children, promoting weight gain, improving digestion, and enhancing overall nutrition.

Natrum Mur: Natrum Mur is a homeopathic remedy for emaciated children with a poor appetite, often craving salt, improving digestion and vitality.

Psorinum: Psorinum, a homeopathic remedy, aids emaciated children, addressing nutritional deficiencies, and promoting overall well-being through individualized treatment.

Sanicula: Sanicula supports emaciated children by promoting appetite, aiding digestion, and enhancing nutrient absorption, fostering healthier growth and development.

Sarasaparilla: Sarsaparilla aids emaciated children by promoting appetite, enhancing nutrient absorption, and supporting overall health through its tonic properties.

Silicea: Silicea supports emaciated children's health, aiding nutrient absorption and promoting growth.

2. Emaciation spreading upwards: For this condition we may use:

Abrotanum: Abrotanum is employed for emaciated children to address weakness, promote appetite, and aid in weight gain and overall vitality.

Argentum Nitricum: Argentum Nitricum helps emaciated children with anxiety, digestive issues, and growth problems; supports overall health and vitality effectively.

3. Intolerance of milk: Medicines used are:

Arsenicum: Arsenicum aids emaciated children, addressing weakness, restlessness, and digestive issues.

Ferrum phos: Ferrum phos aids emaciated children, boosting iron levels for vitality, improving blood circulation, and promoting overall health and growth.

4. Fat intolerance

Pulsatilla: Pulsatilla benefits emaciated children, promoting weight gain and vitality.

Natrum Phos: Natrum Phos aids emaciated children, promoting digestion and nutrient absorption. Supports weight gain and overall health.

CONCLUSION

Statistical analysis was performed using the online t-test calculator to assess the difference in growth percentiles before and after the treatment. The t-test results indicated a paired statistical value of 17.94552267, corresponding to a p-value of 0.03543848, which is less than the conventional significance level of 0.05. The obtained results suggest that homoeopathic intervention has proven effective in addressing suboptimal growth standards. A noteworthy improvement in growth was observed, and subsequent homoeopathic treatments, when coupled with corrective measures, were successful in managing underweight and stunted children. The observed p-value (<0.05) is deemed significant, underscoring the credibility of the study's findings. Consequently, these results provide compelling evidence of the genuine significance of homoeopathy in enhancing growth standards.

REFERENCES

1. Loudon I. A brief history of homeopathy. J R Soc Med. 2006 Dec;99(12):607-10. doi: 10.1177/014107680609901206. PMID: 17139061; PMCID: PMC1676328.
2. Ekins-Daukes S, Helms PJ, Taylor MW, Simpson CR, McLay JS. Paediatric homoeopathy in general practice: where, when and why?. British journal of clinical pharmacology. 2005 Jun;59(6):743-9. https://bpspubs.onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-2125.2004.02213.x
3. Simpson N, Roman K. Complementary medicine use in children: extent and reasons. A population-based study. Br J Gen Pract. 2001;51(472):914. https://bjgp.org/content/51/472/914.short

4. Bailey, Philip M. Homeopathic Psychology: Personality Profiles of the Major Constitutional Remedies. North Atlantic Books, 1995. Nov 30.
5. Jonas WB, Kaptchuck T, Linde K. A critical view of homeopathy. Ann Intern Med 2003;139(8): 393-9. https://doi.org/10.7326/0003-4819-139-8-200310210-00026-w4
6. Cameron, Noël, and Nicola L. Hawley. "Should the UK use WHO growth charts?" Pediatrics and Child Health 20.4 (2010): 151-156. https://www.sciencedirect.com/science/article/pii/S1751722209003229
7. Jayasuriya, Anton. Clinical homoeopathy. B. Jain Publishers, 2003.
8. Malnourishment in India: Why it's very hard to find healthy kids in India. Available from: https://www.edexlive.com/news.html
9. Soldner G, Stellman HM. Individual Paediatrics: Physical, Emotional and Spiritual Aspects of Diagnosis and Counseling--Anthroposophic-homeopathic Therapy. CRC Press; 2014 May 28.
10. Sergi C, Mikuz G. External quality assurance as a revalidation method for pathologists in pediatric histopathology: Comparison of four international programs. BMC clinical pathology. 2008 Dec;8:1-8. https://link.springer.com/article/10.1186/1472-6890-8-11
11. Deml, Michael. Understanding vaccine hesitancy and under-immunization with childhood and human papilloma virus vaccines in Switzerland: a qualitative study. Diss. University_of_Basel, 2020. https://edoc.unibas.ch/76635/
12. Balachandran A, Paul AK, Sinha A. IAP Textbook of Paediatrics. 5th ed. Parthasarathy A, Gupta P, editors. 2013.
13. Girsen AI, Mayo JA, Carmichael SL, Phibbs CS, Shachar BZ, Stevenson DK, Lyell DJ, Shaw GM, Gould JB, March of Dimes Prematurity Research Center at Stanford University School of Medicine. Women's prepregnancy underweight as a risk factor for preterm birth: a retrospective study. BJOG: An International Journal of Obstetrics & Gynaecology. 2016 Nov;123(12):2001-7. https://obgyn.onlinelibrary.wiley.com/doi/abs/10.1111/1471-0528.14027
14. Slow Weight Gain in Infants and Children Symptoms & Causes Boston Children's Hospital.
15. Tiwari SK. Homoeopathy & Childcare. B Jain publishers, New Delhi(P) Ltd; 101- 107 p.
16. Hahnemann S. Organon of Medicine. 5th&6th ed. B jain publishers New Delhi(P)Ltd.
17. Boericke W. Boericke's New Manual of Homeoeopathic Materia Medica with Repertory. Third Revi. CEO, B.Jain Publishers; 2007.
18. Park K. Park's Textbook of Preventive and Social Medicine. 22nd ed. M/s Banarsidas Bhanot Publishers; 2013. 500-501 p.
19. Niekerk V, Louw Q E; Original Research: The prevalence of underweight, overweight and obesity in a multiracial group.
20. Elizabeth KE. Nutrition and Child Development. 3rd ed. Paras medical publisher; 2004. 134-155 p.
21. De Onis M. WHO Child Growth Standards - Length/Height- for-age, Weight-for-age, Weight-for-length, Weight-for-height, and Body Mass Index-for age: Methods and Development. World Health Organization; 2006.336 p. Available from: https://cran.project.org/web/packages/zscorer/vignettes/anthropometry.htm
22. India has largest number of malnourished children in the world. Available from: https://www.livemint.com/Politics/OIdNvn30nqdrGQC6pARu3J/India-has-largest-number-of-malnourished-children-in-the-wor.html.
23. Jain PB. Essentials of Paediatrics. Publisher: Nitya Publication, Pp.222.
24. Balachandran A, Paul AK, Sinha A. IAP Textbook of Paediatrics. 5th ed. Parthasarathy A, Gupta P, editors. 2013. 60-76 p.
25. Tiwari SK. Homoeopathy & Childcare. B jain publishers New Delhi(P)Ltd; 101- 107 p.
26. Park K. Park's Textbook of Preventive and Social Medicine. 22nd ed. M/s Banarsidas Bhanot Publishers; 2013. 500-501 p.