

MODIFIED RITUCHARYA FOR PEDIATRIC AGE GROUP: A KEY FOR HEALTHY UPBRINGING – A REVIEW

Dr. Pragya Pushpanjali^{1*} and Dr. Adhyaru Vrushtiben P.²

¹Medical officer, APHC, Beghi Bhelwa, Ghorasahan, Motihari, Bihar,

²Ph. D scholar, Department of Kaumarbhritya, Institute of Teaching and Research in Ayurveda, Jamnagar.

Article Received on
19 January. 2025,

Revised on 08 Feb. 2025,
Accepted on 27 Feb. 2025,

DOI: 10.20959/wjpr20255-35846



*Corresponding Author

Dr. Pragya Pushpanjali

Medical officer, APHC,
Beghi Bhelwa, Ghorasahan,
Motihari, Bihar.

ABSTRACT

Introduction: Ayurveda emphasis on maintenance of health and it should be practiced from childhood. *Dinacharya*, *Ratricharya*, *Ritucharya*, *Sadvritta* etc. are authentic ancient ways for healthy life. It is required to harmonize with nature to maintain health. *Ritucharya* is ideal way for the same but it should be modified for pediatric age group as per physiology of children. **Aim:** Here, an attempt is made to modify *Ritucharya* for pediatric age group. **Material & Method:** *Bhrit Trayi* (Three major classical text of Ayurveda) and *Kashyapa Samhita* have been reviewed along with other classical references and principles of pediatrics. Modern texts for pediatric physiology, growth, development and psychology have been reviewed. Online published research articles regarding the concern topic have been reviewed.

Result and discussion: *Ritucharya* is a classical Ayurvedic way to

harmonize with nature, which includes suitable diet, regimen, *Panchakarma* procedures etc. for the specific season. *Ritucharya* is well suitable for adults but it should be modified as per requirement of children. Children are *Sukumara* (Vulnerable, delicate) hence, classical *Shodhana* should be replaced by *Mridu Shodhana*. During *Hemanta* and *Shishira Ritu*, diet should be selected carefully. It should not be *Kapha Vardhaka* but it should enhance *Bala* (strength, immunity). *Mridu Vamana* is beneficial to prevent respiratory illnesses in children during *Vasanta Ritu*. During *Grishma* and *Sharada Ritu*, *Shita* diet and regimen should be practiced carefully as children are prone to *Kaphaja Vyadhi*. Hygiene of child should be specially maintained during *Varsha Ritu*. *Divasvapna* is advisable in pediatric age group as sleep hours of children are more as compare to adult. **Conclusion:** *Ritucharya* is

recommended for facilitating adaptation to seasonal changes. It should be tailored to meet the physiological needs of children. Adherence to *Ritucharya* from childhood can contribute to a healthy childhood and a robust life.

INTRODUCTION: Ayurveda is a traditional Indian healthcare system that encompasses both preventive and curative aspects. The *Brihata Trayi* outlines various health-promoting practices, including *Dincharya*, *Ritucharya*, *Ratricharya* and *Sadvritta*. A healthy upbringing is essential for fostering a robust adulthood, hence it is advisable to implement health promoting habits from childhood. An unhealthy lifestyle is a significant contributor to non-communicable diseases (NCDs), which represent a major health challenge in the 21st century, affecting populations globally, including in India. According to a report by the Indian Council of Medical Research (ICMR), the percentage of deaths attributed to NCDs in India rose from 37.9% in 1990 to 61.8% in 2016. In 2021, NCDs were responsible for at least 43 million deaths, accounting for 75% of all non-pandemic-related fatalities worldwide, with 73% of these deaths occurring in low and middle-income countries.^[1] The Global Burden of Disease report from 2019 indicated that over 2.1 million children were impacted by non-communicable diseases.^[2] As per a survey, the prevalence rate of child and adolescent psychiatric disorders in the community has been found to be 6.46% and in the school it has been found to be 23.33%.^[3] In 2017, a study found that 197.3 million people were suffering from mental disorders in India, comprising 14.3% of the total population of the country.^[4]

Time, referred to as *Kala*, is regarded as a *Bhagavana* (divine force), with the existence and fate of individuals intricately linked to its passage.^[5,6] The state of *Dosha*, physical condition and *Bala* (strength, immunity) are influenced by *Kala*.^[7] Therefore, it is essential to align oneself with the evolving nature of time and climate. *Kala* is categorized into two main types: *Aadana Kala* and *Visarga Kala*.^[8] During *Visarga Kala*, *Bala* tends to increase, while it diminishes during *Aadana Kala*.^[9] The year is divided into six distinct seasons: *Hemanta*, *Shishira*, *Vasanta*, *Grishma*, *Varsha*, and *Sharada*. India experiences significant seasonal variations as per these six seasons including variation in temperature, humidity, flowering pattern of plants etc. It is recommended to align oneself with the fluctuations of nature. Ayurveda outlines structured approaches to achieve this balance, known as *Ritucharya*.

The human body is composed of the *Pancha Mahabhuta*, which refers to the five fundamental elements of both the body and the universe: *Prithvi*, *Jala*, *Agni*, *Vayu* and *Aakash* (earth, water, fire, air, and space respectively). The universe itself is constructed from

these same elements. Consequently, any alterations in the universe or one's environment will inevitably result in changes within the human body. It is recommended to take proactive measures to align with these changes, as doing so can aid in disease prevention and the maintenance of health. Ayurveda outlines an ideal approach for this alignment, known as *Ritucharya*, which encompasses aspects such as diet, sleep patterns, lifestyle and *Panchakarma* procedures. However, not all elements of *Ritucharya* are appropriate for the pediatric population, as some are inapplicable or unsuitable for children. The pediatric age group is generally categorized into infants, toddlers, preschoolers, school-aged children and adolescents. Each of these groups has distinct needs based on their physiological, psychological, and developmental stages; necessitating modifications to *Ritucharya* for its effective application in pediatric care.

Table 1. Classification of *Ritu* (season).

<i>Kala</i>	<i>Aadana Kala/ Uttarayana</i> (northern solstice)			<i>Visarga Kala/Dakshinayana</i> (northern solstice)		
<i>Ritu</i>	<i>Shishira</i>	<i>Vasanta</i>	<i>Grishma</i>	<i>Varsha</i>	<i>Sharada</i>	<i>Hemanta</i>
Season	Cold and dewy	Spring	Summer	Monsoon	Autumn	Winter
Indian months ^[10]	<i>Margsirsha</i> <i>Paushya</i>	<i>Magha</i> <i>Falgun</i>	<i>Chaitra</i> <i>Vaishaka</i>	<i>Jyestha</i> <i>Ashadha</i>	<i>Shravana</i> <i>Bhadrapada</i>	<i>Ashvina</i> <i>Kartika</i>
Calendar months	Mid - January to mid-march	Mid - March to mid-May	Mid - May to mid-July	Mid - July to mid-September	Mid-September to mid-November	Mid - November to mid-January

MATERIAL AND METHOD: The three principal classical texts of Ayurveda, namely Charak Samhita, Sushruta Samhita, and Ashtanga Samgraha, along with Kashyapa Samhita have been reviewed in relation to the concept of *Ritucharya*. Additionally, classical references and principles pertaining to pediatrics within Ayurveda have been analyzed. Contemporary literature addressing pediatric physiology, growth, development, and psychology has also been reviewed. Furthermore, online published research articles concerning the relevant topic have been assessed.

RESULT AND DISCUSSION: *Ritucharya* is mentioned in the initial chapters of the *Brihata Trayi*, highlighting its importance in maintaining health. Kashyapa Samhita, which focuses on Ayurvedic pediatrics, does not specifically cover *Ritucharya*, or it may be that this portion is absent in the existing versions of the text, but the effects of seasonal variations on the human body are addressed before explaining *Shanshodhana* by Acharya Kashyapa,^[11]

suggesting that *Ritucharya* is vital for both preventive and therapeutic practices, particularly concerning the pediatric age group.

Modification of *Hemanta Ritucharya*

Diet: During the *Hemanta Ritu*, the digestive and metabolic capacity, known as *Agni*, is at an optimal level. Failure to adhere to a proper diet may result in a decline in bodily strength. This season typically brings an increase in hunger, which should be addressed with a suitable diet. It is essential to provide heavy and unctuous foods that are appropriate for the child's age and digestive ability. Recommended foods during this period include milk and milk products, sugarcane derivatives, oils, and rice. Children tend to favor milk and ghee, as well as sweet foods. Options such as warm milk, sweets made with ghee and Jaggery, and *Chikkis* made from peanuts or sesame seeds are excellent choices for nourishment during *Hemanta Ritu*. Additionally, sour and salty foods are commonly consumed, *Aamalaki* (Indian gooseberry) paired with rock salt serving as a prime example. It is advisable to drink lukewarm water, as it helps prevent respiratory illnesses during the winter months. Light foods and those that increase *Vata*, such as pulses, should be avoided.

Regimen: Children should be encouraged to remain in a warm environment. It is essential to avoid direct exposure to cold winds. Attire should be warm and substantial, with woolen garments being particularly recommended for this season. During sleep and travel, children should be adequately covered with warm clothing. Practices such as *Abhyanga* (massage with medicated/ natural oil), *Utsadana*, and *Murdhni Taila* (*Shiro Dhara*, *Shiro Pichu*, *Shiro Abhyanga*, *Shiro Basti*) are advisable. *Abhyanga* offers natural moisture to the skin and helps prevent dryness-related skin disorders. Additionally, it contributes to enhancing strength and complexion.^[12] *Swedana* (hot fomentation), especially through *Atapa Sevana* (sunlight exposure), is advantageous as it protects against cold and provides a natural source of vitaminD.

Modification of *Shishira Ritucharya*

Hemant Ritucharya is recommended during the *Shishira Ritu*, given the similarities between the two seasons. The temperatures in *Shishira Ritu* are lower than those in *Hemant Ritu*, necessitating additional precautions to safeguard children during this time. It is advisable to avoid light diets as well as bitter, astringent, and pungent foods. Additionally, one should refrain from consuming light and *Vata Vardhaka* foods and beverages.

Modification of *Vasanta Ritucharya*

Diet: Wheat and barley are essential components of a diet during *Vasanta Ritu*. It is advisable to avoid heavy, sweet, sour, and oily foods. While daysleep is generally discouraged during *Vasanta Ritu*, it may be permitted based on the child's age because adequate sleep is crucial for growth and development in childhood.

Regimen: Accumulated *Kapha Dosha* are melted during heat of *Vasanta Ritu* and it hampers *Kayagni* (digestive and metabolic capacity). *Vamana* should be done during *Vasanta Ritu* for expulsion of *Kapha*.^[13] In pediatric practice, *Mridu* or *Sadhyo Vamana* should be planned. For these, child should be advised to consume unctuous diet during night. Next morning, warm salty water should be offered to child up to satiety. Then *Vamana* should be advised. *Vamaka* or *Vamanaopaga* medicine should be given in low dose if required. *Yashtimadhu Phanta* or *Vacha Choorna* are suitable for the same.

Modification of *Grishma Ritucharya*

Diet: During the *Grishma Ritu*, it is advantageous to consume sweet, cold, and unctuous foods and beverages. Drinks containing *Sharkara* (sugar candy) are particularly appropriate for this season. Various homemade beverages such as fenugreek drink, dry coriander drink, Kokum drink, *Sattu* drink, ripe mango drink, watermelon drink and muskmelon drink should be provided to children. While ghee and milk are generally discouraged during this period, it is important to note that children may have a preference for these items; thus, their consumption should not be entirely eliminated but rather reduced in quantity. It is advisable to avoid hot, salty, spicy, and sour foods.

Regimen: Excessive physical activity is not recommended during summer.^[14] Children should participate in indoor games, while outdoor activities should be restricted to a duration of 20 to 40 minutes per day. It is advisable for children to take daytime naps. At night, exposure to moonlight is beneficial and if feasible, sleeping on a terrace can enhance exposure to moonlight and cool breezes. *Mukta* (pear) should be worn as jewelry, as they offer natural cooling benefits during the hot summer months.

UNICEF has indicated that heat stress resulting from heat waves may have detrimental effects on health and well-being, particularly for infants and young children.^[15] According to a report by the World Health Organization, heat waves can adversely affect cardiovascular

health and elevate the risk of stroke.^[16] The adoption of *Grishma Ritucharya* from an early age can be beneficial in mitigating the risk of such health issues.

Modification of *Varsha Ritucharya*

Diet: During the *Varsha Ritu*, there is a reduction in *Agni*.^[17] Honey is advantageous and should be combined with various foods and beverages. The diet should include wheat, barley, and *Shali*, which is a specific type of rice. To naturally manage the aggravated *Vata Dosha*, it is recommended to consume unctuous, sour, and salty foods. A variety of *Yusha* (soup prepared from pulses) should also be included in the diet. Water should be boiled and subsequently cooled before being consumed.

Regimen: It is advisable to wear light and clean clothing. Practices such as *Pragharshana*, *Udvartana* and regular bathing should be practiced. These measures will assist in maintaining hygiene and preventing infectious diseases during the rainy season.

Modification of *Sharada Ritucharya*

Diet: *Pitta Prakopa* is expected to naturally manifest during the *Sharada Ritu*.^[18] It is advisable to consume *Pitta Shamaka* foods and beverages. Foods and drinks that are sweet, bitter, light and cool are recommended. However, since bitter flavors are generally unappealing to children, sweet diet is preferable. The diet should include *Shali* rice, barley, and wheat. While *Tikta Sarpi Pana* is recommended, it is not suitable for children; therefore, cow ghee should be utilized instead. If children are unwilling to accept *Sarpi Pana*, *Sarpi* can be offered as *Pravicharana*, which involves using ghee with various foods and drinks. It is advisable to avoid curd and *Kshara*, as fermented foods contain curd and cooking soda (a form of *Kshara*), which should also be excluded from the diet.

Regimen: *Virechana* (medicated purgation) and *Raktamokshana* (bloodletting) should be scheduled during the *Sharada Ritu*.^[19] In childhood, *Virechana* should be substituted with *Basti* (medicated enema) unless it is an emergency situation.^[20] If *Virechana* is deemed necessary, *Mridu* or *Sadhyo Virechana* should be considered. The following substances should be utilized as *Virechaka Dravya*: *Draksha Siddha Jala*, *Aragvadha Phala Majja Kwatha* and *Avipattikara Choorna*. Bloodletting is not recommended for children;^[21] if it is essential, *Jalauka Avacharana* (leech therapy) should be planned. *Dhatu* and *Bala* are *Asampurna* during childhood, it is advisable to refrain from bloodletting unless there is a specific illness. During the *Sharada Ritu*, individuals should wear clean clothing and

ornaments. Additionally, exposure to moonlight during the first three hours of the night is considered beneficial.

Ritusandhi

The final seven days of the current season, along with the subsequent seven days of the upcoming season, are referred to as *Ritusandhi*. It is recommended to gradually reduce the diet and regimen associated with the current season while adapting to those of the forthcoming season.^[22] A sudden shift in lifestyle can result in health issues. Children require a gradual adjustment to their daily routines during this period. Abrupt changes can result in psychological stress for children, while a delayed transition may contribute to seasonal illnesses.

Ritucharya – a safeguard for mental health: Eco-anxiety has become a significant concern in contemporary society. According to a report by the American Psychological Association (APA), climate change has a profound impact on mental health, often manifesting as fear, anger, fatigue, and a sense of helplessness.^[23] Ayurveda offers seasonal practices such as *Abhyanga*, *Murdhataila*, *Udgharshana* and *Basti*, which can support mental well-being, including in children. *Vata*, which governs the mind, is also associated with the skin; therefore, performing *Abhyanga* with oil—preferably medicated oil infused with *Vata Shamaka* herbs—can effectively regulate *Vata*. By managing *Vata*, one can achieve a calmer and more stable mind. *Basti* is particularly effective for *Vata Shamana*, and regular *Basti* treatments, aligned with seasonal changes, can serve as a preventive measure against mental health issues.

Table 2: Modified *Ritucharya* as per different pediatric age group.

Age	Diet	Regimen	<i>Panchakarma</i> and other procedures
Infant	Up to 6 months – EBF. 6 month to 1 year – weaning food should be offered as per <i>Ritucharya</i> .	Avoid exposure of cold wind to prevent hypothermia. Day - sleep should be allowed as per sleeping pattern of the child.	<i>Abhyanga</i> and <i>Shiropichu</i> should be practiced.
Toddler	Palatable food should be offered as per <i>Ritucharya</i> . Use of Ghee is beneficial as it is <i>Medhya</i> (improves	Day - sleep should be allowed for 3 to 4 hours.	<i>Abhyanga</i> should be practiced.

	cognitive function)		
Pre - school age	Palatable food should be offered as per <i>Ritucharya</i> .	Day - sleep should be allowed for 1 to 2 hours.	<i>Abhyanga</i> , <i>tsadana</i> and <i>Udgharshana</i> should be practiced.
School going age	Palatable food should be offered as per <i>Ritucharya</i> .	No need of day sleep except summer.	<i>Panchakarma</i> should be advised as per <i>Bala</i> (strength) and disease.
Adolescents	As per <i>Ritucharya</i>	Avoid day sleep except summer.	Recommended <i>Panchakarma</i> should be advised except <i>Raktamokshana</i> .

***Ritucharya* – A preventive way for NCDs:** A study reported association between seasonal variation and Mood, behavior, NCDs like hypertension, high cholesterol and diabetes.^[24] Adhering to an appropriate diet aligned with seasonal changes, along with the implementation of *Panchakarma* procedures such as *Vamana*, *Virechana* and *Basti* in children, can serve as a protective measure against NCDs.

CONCLUSION: *Ritucharya* is recommended for facilitating adaptation to seasonal changes. It should be tailored to meet the physiological needs of children. Implementing *Ritucharya* in pediatric populations is advantageous for harmonizing the natural seasonal fluctuations of the three *Dosha* from an early age, thereby reducing the incidence of seasonal illnesses. Additionally, *Panchakarma* procedures are effective in eliminating accumulated *Dosha*, which prevent NCDs and psychological illness. Adherence to *Ritucharya* from childhood can contribute to a healthy childhood and a robust life.

REFERENCES

1. www.who.int, Home/newsroom/factsheets/ details/NCDs
2. Children and Non - communicable disease, global burden reports 2019.
3. Malhotra, S., Patra, B.N. Prevalence of child and adolescent psychiatric disorders in India: a systematic review and meta-analysis. Child Adolescence Psychiatry Mental Health, 2014; 8(22): .https://doi.org/10.1186/1753-2000-8-22.
4. Lancet Psychiatry. 2020 Feb;7(2):148-161. doi: 10.1016/S2215-0366(19)30475-4. Epub 2019 Dec 23; PMID: 31879245; PMCID: PMC7029418.
5. Shastri A, Sushrut Samhita of Sushrut, Part 1, reprint edition, Chaukhambha Sanskrit Sansthan, Varanasi, Sutra Sthana., 2014; 6(3): p.27.

6. Gupta A, Ashtanga Sangrah of Vagbhatt, reprint edition, Chowkhamba Krishnadas Academy; Varanasi, Sutra Sthana, Ch.4, Ver.1, 2011.p.40.
7. Gupta A, Ashtanga Sangrah of Vagbhatt, reprint edition, Chowkhamba Krishnadas Academy; Varanasi, Sutra Sthana, Ch.4, Ver.1, 2011.p.40.
8. Gaur B, Charaka Samhita of Agnivesha, 1st edition, Rashtreeya Ayurved Vidhyapeeth; New Delhi, Sutra Sthana, Ch.6, Ver.4: 2017.p.220.
9. Gaur B, Charaka Samhita of Agnivesha, 1st edition, Rashtreeya Ayurved Vidhyapeeth; New Delhi, Sutra Sthana, Ch.6, Ver.6,7: 2017.p.224-25.
10. Shastri A, Sushrut Samhita of Sushrut, Part 1, reprint edition, Chaukhambha Sanskrit Sansthan, Varanasi, Sutra Sthana, Ch.6, Ver. 6; 2014.p.28.
11. Satyapal B, Kashyapa Samhita of Vrudhha Jeevaka, Reprint edition, Chaukhambha Sanskrit Samsthan, Varanasi, Khila Sthana, Ch. 7, Ver.7,9,11, 2018.p.408-09.
12. Gaur B, Charaka Samhita of Agnivesha, 1st edition, Rashtreeya Ayurved Vidhyapeeth; New Delhi, Sutra Sthana, Ch.5, Ver.88,89: 2017.p.209.
13. Gaur B, Charaka Samhita of Agnivesha, 1st edition, Rashtreeya Ayurved Vidhyapeeth; New Delhi, Sutra Sthana, Ch.6, Ver.22: 2017.p.232.
14. Gaur B, Charaka Samhita of Agnivesha, 1st edition, Rashtreeya Ayurved Vidhyapeeth; New Delhi, Sutra Sthana, Ch.6, Ver.29: 2017.p.234
15. <https://www.unicef.org/stories/heat-waves-impact-children>
16. <https://www.who.int/news/item/02-11-2023-climate-change-and-noncommunicable-diseases-connections>
17. Gaur B, Charaka Samhita of Agnivesha, 1st edition, Rashtreeya Ayurved Vidhyapeeth; New Delhi, Sutra Sthana, Ch.6, Ver.33: 2017.p.235.
18. Gaur B, Charaka Samhita of Agnivesha, 1st edition, Rashtreeya Ayurved Vidhyapeeth; New Delhi, Sutra Sthana, Ch.6, Ver.41: 2017.p.238
19. Gaur B, Charaka Samhita of Agnivesha, 1st edition, Rashtreeya Ayurved Vidhyapeeth; New Delhi, Sutra Sthana, Ch.6, Ver.43: 2017.p.238
20. Moreswar A, Ashtanga Hridaya of Vagbhatt, reprint edition, Chowkhamba Sanskrit Sansthan; Varanasi, Uttara Tantra, Ch.1, Ver.40, 2018,p.780
21. Satyapal B, Kashyapa Samhita of Vrudhha Jeevaka, Reprint edition, Chaukhambha Sanskrit Samsthan, Varanasi, Sutra Sthana, Ch. 27, Ver.66, 2018.p.68.
22. Gupta A, Ashtanga Sangrah of Vagbhatt, reprint edition, Chowkhamba Krishnadas Academy; Varanasi, Sutra Sthana, Ch.4, Ver.61, 2011.p.44.

23. Coffey Y, Navjot B et al, Understanding Eco-anxiety: A Systematic Scoping Review of Current Literature and Identified Knowledge Gaps, The Journal of Climate Change and Health, Volume 3, 2021,100047, ISSN 2667-2782, <https://doi.org/10.1016/j.joclim.2021.100047>
24. <https://www.who.int/news/item/02-11-2023-climate-change-and-noncommunicable-diseases>.