



International Journal of Sanskrit Research

अनन्ता

ISSN: 2394-7519

IJSR 2018; 4(3): 139-145

© 2018 IJSR

www.anantaajournal.com

Received: 25-03-2018

Accepted: 26-04-2018

PB Rshikesan

Research Scholar, Swami
Vivekananda Yoga Anusandhana
Samsthana, Bengaluru, Karnataka,
India

Pailoor Subramanya

Pailoor Subramanya
Associate Professor, Department
of yoga, Central University of
Kerala, Kasaragod, Kerala, India

Correspondence

PB Rshikesan

Research scholar, Swami
Vivekananda Yoga Anusandhana
Samsthana, Bengaluru, Karnataka,
India.

Email:hrishipb@gmail.com

Understanding the attributes and associations of obesity with reference to some of the ancient yoga texts

PB Rshikesan and Pailoor Subramanya

Abstract

Background: Problem of obesity is rapidly growing worldwide. Obesity is the prime cause for several non-communicable diseases. It is a multi-factorial disease and the treatment in the modern medicine has many side effects. Hence more research is desired for prevention and control of obesity within the complementary and alternative systems of medicine.

Aim: To find out the references of obesity in the ancient Indian yoga texts.

Materials and Methods: There are various symptoms attributes and associations for obesity. These were compiled and checked for their descriptions and references at different contexts in ancient yoga texts. Ancient yoga texts like *Jābāladarśanopaniṣad Śvetaśvetaropaniṣad Haṭhayogapradīpika Patanjali yoga sutra* were referred. The associations and attributes of obesity were interpreted with reference to recent studies.

Results: Obesity is recognized and addressed in several ancient yoga texts directly or indirectly.

Conclusion: Attributes and associations of Obesity can be seen in several ancient yoga texts, such as *Jābāladarśanopaniṣad Śvetaśvetaropaniṣad Haṭhayogapradīpika* and *Patanjali yoga sutra*. In yoga practice there is an integrated approach considering body and mind together, and treatment of disease is from its root. The probable reason of recent obesity increase can be interpreted in light of living away from nature, *Āhāra Vihāra Viśrānti* triangle, and urbanization. These pointers may lead to new lines of research on integrated aspects of yoga, for management of obesity.

Keywords: Obesity, Yoga, *Haṭhayogā*

Introduction

The problem of obesity is increasing worldwide and it is a platform for many diseases ^[1]. There are references of obesity found in the ancient Indian texts. The attributes of obesity are indirectly inherent in the *Haṭhayogā* texts. The ancient *Haṭhayogā* texts mention many attributes of obesity while describing the various yoga practices. At many places in the yoga texts, it is indicated that symptoms of obesity will be removed by certain yoga practices ^[2, 3]. Also associations of obesity are found in subtle manner with philosophical and poetic presentations. Further, it is noted that there are adverse effects in the current obesity treatments and it is prudent to explore the further clinical research possibilities for prevention of obesity ^[4].

The word yoga was originated from the Sanskrit word *Yuj*, which means to join or connect. This refers to connecting of individual consciousness to universal consciousness. Yoga also means the control of mind. Obesity is caused by imbalance in energy intake and energy expenditure by lack of control over mind. Lack of mastery over mind is the source of many diseases including obesity, with reference to the energy intake and energy expenditure ^[5, 6].

The *Taitareya Upaniṣad* defines five layers of human consciousness and presents the *Pancakośa* theory ^[7]. The diseases originate from the mental layer or *Manomaya kośa* due to the excessive excitation of thought flux, which in turn make imbalances of *prāṇa* in *Prāṇamaya kośa*. The imbalance and disharmony will be further transferred to physical body or *Annamaya kośa*. Several layers of consciousness will be addressed by yoga practices and

the illness is removed from the origin. Mastery over mind to deal with the stress may reduce the cravings for junk food and physical inactivity which may help in obesity control^[8].

The ancient Indian texts like *Vedā*, *Upaniṣad*, *Upaveda*, *Vedāṅga* (e.g. *Purāṇa Itihāsa*) *Bhagavat Gīta* are huge treasure of knowledge yoga texts which are part of the ancient scriptures, give many references on obesity and its attributes directly and indirectly, while describing various yoga practices. The ancient Indian texts highlight the requirements of integrated approach of mind body medicine and concept of living close to the nature, which include physical activities^[9].

The awareness on physical exercise was prevalent in the ancient India^[10]. The yoga practices existed in the ancient Indian subcontinent as per previous studies. In the Indus Saraswati valley civilization the terracotta sculptures of Mohanjodara and Harappa had the postures which indicated hints of certain *Āsana*. The *Paśupati* seal discovered in Mohanjodara has three heads and is attributed to Lord śiva, who is associated with origin of yoga^[11]. Hence apart from ancient Ayurveda texts, quality medical knowledge about obesity was prevalent in the other scriptural texts^[12] including yoga texts. Thus it is prudent to search the obesity aspects in the ancient yoga texts.

Methodology

Study was done to find out the obesity aspects discussed in the ancient texts with special reference to ancient yoga texts. The Table 1 gives the details of major ancient yoga texts in which obesity attributes and references are compiled.

Āhāra Vihāra Viśrānti Triangle and its balance

Āhāra Vihāra and *Viśrānti* constitute the three sides of a conceptual triangle of harmonious human existence. *Āhāra* denotes all the inputs to the body through various sense organs. *Vihāra* represents the activities including yoga practices of *Āsana Prāṇāyāma*, *Sūryanamaskāra* etc. *Viśrānti* is the aspect of relaxation and sleep. The Sleep quality is an important factor in the regulation of fat accumulation^[13] and relaxation and awareness is essential in every yoga practice. Balance of all three sides of the triangle is the natural state of living. Yoga itself is defined as balance in all the activities^[14]. Thus with balance in *Āhāra Vihāra Viśrānti*, the body disorders will be reduced and person moves to natural state of living.

Food as oblation

As per *Upaniṣad*, food should not be eaten with passion, and the act of eating is a sacrifice. Food is nothing but oblation as per *Upaniṣad*. It is the conscious divine being within, the real eater of the food, to whom the oblation offered. It is the *Agnihotra* sacrifice offered to the *Ātman* in the *Prāṇa* in the form of food. The *Maitrāyaṇi Upaniṣad* says that both the mind and food should be purified before eating. The eater of the food should be conscious that universal atman is the real eater of the food. The *Vaiśvanara* is the real giver of the life to everyone and *He* is the eater of all foods. The *Vaiśvanara Agni* is the fire that digests food. The *Āruṇika Upaniṣad* says that food should be eaten as medicine. The food is eaten only to maintain life and not for sake of enjoyment. Hence one should eat only minimum quantity of food sufficient to

maintain life and not to satisfy the passion. Food is called *Anna*, since it is eaten by all beings and it eats all things in the form of *Prāṇa*, the eater of food as per *Taitareya Upaniṣad*^[7].

Recognition of obesity in yoga texts

As per Patanjali Yoga sutra, *Avidya* (ignorance) is the root cause of all *Kleśas* (all miseries including body mind disorders)^[15]. The removal of the *Kleśas* and attainment of *Samādhi* is the goal of yoga practice. Further the *Haṭha Yoga* texts, like *Haṭhayogapradīpika*, *Gheeraṇḍa Samhita Śiva Samhita*, *Haṭha Ratnāvali*, *Yoga Tarāṅgiṇi*, *Vasiṣṭh Samhita*, recognize obesity as a disorder and mention practices for reducing the difficulties. Even though therapy is not the primary objective, from the symptoms described in these texts, it can be concluded that obesity is well recognized and addressed. The *Haṭhayogapradīpika*^[2, 3] has four chapters namely *Āsana Prāṇāyāma Mudra Bandha* and *Samādhi* with total about 390 *Śloka* (four lines).

It contains numerous references directly and indirectly on physical body, such as overweight, control of obesity, fat metabolism, eating disorder, over-eating, thirst and hunger disorder, sleep disorder, gastric fire, lethargy laziness, body beauty, leanness enlargement of body organs, power of body reduction etc. Many of the *śloka* are embedded with hidden meanings metaphors and poetic pointers to obesity.

Discussions

Direct references

Various yoga texts were searched for references of obesity and found that many of the texts were mentioning the attributes of obesity as compiled in Table-1

Obesity references in *Haṭhayogapradīpika*

The ancient yoga text of *Haṭhayogapradīpika* explicitly mentions that symptoms of obesity will be reduced by yoga practices.

The first chapter in *Haṭhayogapradīpika* deals with *Āsana* or postures and it is mentioned that by practicing *Āsana* one will get stability health and lightness of the body.

हठस्य प्रथमाङ्गत्वादासनं पूर्वमुच्यते ।

कुर्यात्तदासनं स्थैर्यमारोग्यं चाङ्ग-लाघवम् ॥ १९ ॥ हठ । यो । प्र १-१९

Haṭhasya prathamāṅgatvādĀsanam pūrvamucyate ।

Kuryāttadāsanam sthairyamĀrogyam cāṅga-lāghavam ॥ 19 ॥ Haṭha | Yopra 1-19

It may be noted that *Haṭhayogapradīpika* emphasize the lightness of body in addition to the mention of the term *Ārogyam* or health. The lightness includes flexibility of joints and fat dissipation. This is the first *śloka* of the first chapter and the importance of *haṭhayoga* practices for controlling obesity is underlined. Further, in chapter two, it is stated that after doing yoga *Naḍi* or energy vessels will become pure and body will become lean and bright.

यदा तु नाडी-शुद्धिः स्यात्तथा चिह्नानि बाह्यतः ।

कायस्य कृशता कान्तिस्तदा जायते निश्चितम् ॥ १९ ॥ हठ । यो । प्र २-१९

Yadā tu nāḍī-śuddhiḥ Syāttathā cihnāni bāhyataḥ ।

*Kāyasya kṛṣatā kāntiḥstadā jāyate niścitam || 19||
Haṭha|Yopra 2-19*

The first and foremost sign of the purification of the *nāḍi* is the *Kāyasya Kṛṣatā* or the leanness of the physical body. These statements underline the outcome of *Prāṇāyāma* relevant to obesity.

Further regarding the indications of success on practicing *Haṭhayoga*, following is mentioned.

वपुः कृशत्वं वदने प्रसन्नता नाद-स्फुटत्वं नयने सुनिर्मले ।

अरोगता बिन्दु-जयोऽग्नि-दीपनं नाडी-विशुद्धिर्हृष्ट-सिद्धि-लक्षणम् ॥ ७८ ॥

हठ।यो।प्र २-७८

Vapuḥ kṛṣatvaṁ vadane prasannatā Nāda-sphuṭatvaṁ nayane sunirmale |

Arogatā bindu-jayo'gni-dīpanam Nāḍi-viśuddhirhaṭha-siddhi-lakṣaṇam || 78|| Haṭha|Yopra 2-78

In the above verse, first out of eight symptoms of success in *haṭhayoga* are mentioned as leanness of body. Also mentioned are freshness of face, health, improved digestion and others which are attributes of non-obesity.

While describing *Mayūrāsana*, a yoga posture, it is said that this practice will destroy all diseases, abdominal disorders, indigestion and regulates appetite, and other symptoms which are observed in obesity. Also *Haṭhayogapradīpika* says that by doing *Paścimatānāsana* the abdomen will become flat and thus obesity will be reduced. It is said that this *Āsana* is the best among *Āsanas* and by this practice the *Prāṇa* currents will raise through *Suṣmuna Nāḍi* and digestive power will be increased. The overeating is a disorder as per *Haṭhayogapradīpika*. As per *Haṭhayogapradīpika*, overeating is the first negativity which will destroy the success of yoga. Thus the *Haṭhayogapradīpika* emphasizes that yoga practices are applicable for obesity control. The *Haṭhayogapradīpika* ²⁻³, text was searched and it was observed that more than fifteen percentage of the *śloka* (having four lines) of *Haṭhayogapradīpikā* contains some or other attributes of obesity.

Subtle references of disease in *Rgveda*

In *Rgveda* there are reference of medicine and natural living, though not specific to obesity. In *maṅṭala 1 sūkta 23* gives prayer for water as a medicine ¹⁶. It is stated that “the ambrosia is within the water; all the medicines are within it. Further it is said that the medicines of entire universe are within water”. Modern knowledge also emphasizes that food and water system has huge impact on prevention of obesity. ¹⁷ *Rgveda* might have given directions of development of the knowledge in yoga and naturopathy. In *maṅṭala 10 sūkta 163* of, it is said that “Oh patient I remove all the diseases from your organs of excretion, the large bowel, heart, small bowel, both kidneys, liver and from other viscera” ¹⁸. It is a prayer to *Agni* to remove all bad deeds committed while awake and sleep (means consciously and unconsciously). Also it is a prayer to *Agni* to remove the thoughts (haphazard and uncontrolled thoughts) and to make the mind still and tranquil. Recent studies also reveal that the weight loss is

associated with improvements in mood and psychological states ¹⁹.

References of obesity in *Upaniṣads*

Śvetāśvetara Upaniṣad

The *Śvetāśvetara Upaniṣad* ²⁰, gives the symptoms of a successful yogi as below.

लघुत्वमारोग्यमलोलुपत्वम् वर्णप्रसादं स्वरसौष्टवं च ।

गन्धः शुभो मूत्रपुरीषमल्पं योगप्रवृत्तिं प्रथमं वदन्ति ॥ श्वेता उप - २-१३

Laghutvamārogyamalolupatvam

Varṇaprasādam

svarasauṣṭavam ca |

Gandhaḥ śubho mūtrapurīṣamalpaṁ Yogapravṛttim prathamam vadanti|| Śvetā Upa - 2-13

The first sign of success in yoga is that *yogi* will have *laghutvam* or lightness of the body. Further it is said that *yogi* will have *ārogyam* or positive health, bright complexion, sweet voice, good smell in the body (*Śubha Gandhaḥ*) etc. These indicate that the obesity was recognized and addressed during that time. It is also relevant to note that the lightness of the body is specially emphasized here in addition to mention of positive health. This is one of the early references on yoga and obesity. Further the symptoms of obesity such as perspiration and bad smell from body due to fat, fatigue, and craving for enjoyment (including taking excessive food) are indirectly indicated here. Recent studies conclude that mild hypo hydration impairs the sweating responses and this is exacerbated in obese ^{21, 22}. Further control of appetite regulation and food carvings has significant role in obesity as per the studies ²³.

Jābāla darśanopaniṣad

Jābāla darśanopaniṣad which is also one of the early *upaniṣads* deals with obesity aspects in similar manner as in *Śvetāśvetara Upaniṣad*. *Jābāla darśanopaniṣad* mentions as below.

नाडीशुद्धिमवाप्नोति पृथक् चिह्नोपलक्षितः ।

शरीरलघुता दीप्तिवह्निर्जाठरवर्तिनः । ४ ॥ ११ ॥ श्रि जाबालदर्शनोपनिषत् ।

nāḍīśuddhimavāpnoti pṛthak cihṇopalakṣitaḥ |

śarīralaghutā dīptirohnerjāṭharavartinaḥ|| śri jabaladarśana ūpaniṣad 4-11

It is stated that after attaining the *nāḍīśuddhi* or cleanliness of life force vessels, symptoms of lightness of body and better functioning of digestion etc. will be visible. Recent studies have established links between digestion in obesity and metabolic disorders ²⁴.

Hence the above two early *ūpaniṣads* categorically states the benefits of yoga practice for control of obesity and underline the attributes of obesity.

Ayurveda texts

In Ayurveda texts, *Sthaulyā* or obesity is discussed in detail. The *Sthaulyā* is derived from the root *Sthu*, the suffix which stands for thick, solid, big or bulky ²⁵. In the *Caraka Saṁhita* chapter 21 *śloka 3*, eight types of undesirable personalities are described and one of them is overweight / obesity ²⁶. Hence obesity is considered as one of the disease as per *Caraka*

Sāmhita. It is described that obese will have less longevity, slowness in movement, weakness, emitting bad smell of body due to sweating, sexual weakness, more hunger and thirst. These are the distinct characteristics given by *Caraka Sāmhita* for obesity^[26]. By applying concepts of Ayurveda, one can get more understanding in yoga practices^[27] and here obesity attributes given in ancient yoga texts are found similar to Ayurveda texts.

Vedānta Texts

As per the ancient text, *Pancadaśī*, chapter two śloka 12, the mind is the ruler of the ten organs of senses and actions^[28]. Mind is also called an internal organ or *Antakarana*. There are *triṅṅa* properties of mind, which are *Satva Rajas* and *Tamas*. Based on the *Guṇa* operating, the quality of mind will be different. Heaviness will be the characteristic of *Tamas* and lightness will be of *satva*. Randomized controlled studies have shown the influence of yoga on *guṇa*^[29].

Bhagavat gīta

Concept moderation in quantity and quality of food is emphasized in *Bhagavat gīta*. There will be effect of food on the mind. The types of food are classified as *Satvā Rajas* and *Tamas*. *Bhagavat gīta* which is the cream of all scriptures has very deep meanings and the verses can be interpreted in the terms of nutrition metabolism and endocrinology which are relevant to obesity^[30, 14]. As per the *Bhagavat gīta*, person who has moderation in food, exercise, entertainment, sleep and wakefulness will be healthy. Thus *Bhagavat gīta* gives very subtle information for the prevention of diseases and sorrow^[31].

Bhartruhari texts

As per texts of *Bhartruhari* hunger, sleep, fear, procreation are common to man and animals^[14] The *Buddhi* is special to man. Person who does not have *Buddhi* is considered similar to animal. The importance of *Vijñānamaya Kośa*, which is the discriminative consciousness, is emphasized, to have mastery over instincts and feelings. The instincts and feeling are the unbalance of mind leading to disorders in mind and body.

Yoga Vasiṣṭha

Yoga Vasiṣṭha, is an ancient yoga text with about 32,000 verses written in the form of question and answers. As per *Yoga Vasiṣṭha* diseases are classified into two *Ādhija* or *Anadhija*. *Ādhija* disease is divided into two namely essential (suffering of birth cycles etc.) or *Sāra* and general or *Sāmānya*. In the *Sāmānya* the root cause of disease is agitated mind and stress. Obesity can be considered under this category. *Yoga Vasiṣṭha* emphasizes the importance of stillness of mind^[32] since mind is the root cause for all diseases. It is stated that

मनः प्रशमनोपायः योग इत्यभिधीयते । यो । वा ३-९-३२

Manah praśamanopāyaḥ Yoga ityabhidhīyate | Yo | Vā 3-9-32.

The sense of self is the seed of universe. From the seed all the world came into existence and the world is unfolding in the mind, as per *Yoga Vasiṣṭha*. This indicates that the control of mind is the solution for the human sufferings. This is especially applicable to obesity since the lack of stillness of mind will lead to excessive eating and faulty life style^[19].

Patanjali yoga sutra

Patanjali yoga sutra described disease or *Heya*- suffering, *Hetu* - the cause of suffering, *Hāna* - relief from suffering and *Hanopāya* - methodology for treatment for suffering. Control over modification of *citta* is required for healthy life. All diseases are from wrong identification of 'Self' due to Ignorance or *Avidya*. Further Sage *Patanjali* mentions about super natural powers in Chapter three of *Patanjali yoga sutra* as below.

कण्ठकूपे क्षुत्पिपासानिवृत्तिः ॥ ३० ॥ प । यो । सू ३-३०

Kaṅṭhakūpe kṣutpipāsānivr̥ttiḥ || 30/Pa| Yo| Sū 3-30

One gains control over thirst and hunger by doing *Sāmyama* on throat. Cessation of hunger and thirst is important for control of obesity because eating disorder is one of the primary causes leading to overweight. Sage *Patanjali* in the next aphorism systematically put forth another symptom of obesity which is instability. By performing *Sāmyama* on the *tortoise shaped Kurma Nāḍī* or life force vessel, below the throat, (bronchial tube) the steadiness of the body is achieved. It may be noted that the *Viśuddhi Cakra* and the thyroid endocrine glands located at the throat well, have direct influence on metabolism and fat disposition. The *Viśuddhi Cakra* which will give the cooling effect is essential for the calmness of the body and mind and balancing of parasympathetic nervous system. As per the modern science function of thyroid has importance in regulation of fat metabolism^[33].

In the ancient times by seeing the *prāṇic* body, different illnesses were diagnosed. There is a difference in opinion about the exact location of the *Kurma Nāḍī*. *Vyāsa* and *Vācaspati* interpreted that the *Kurma Nāḍī*, is within the chest which could be sternum^[15] Recent studies also shows association between obesity and asthma and effect of central obesity on allergic sensitization^[34].

Further Sage *Patanjali* says that,

समानजयाज्ज्वलनम् ॥ ४० ॥ प । यो । सू ३-४०

Samānajayājṅvalanam || 40/Pa| Yo| Sū 3-40

By doing *Sāmyama* on *Samāna Prāṇa* gastric fire and capacity for digestion is enhanced. This aphorism is also a relevant pointer towards regulation of fat metabolism. Further it is mentioned that,

ततोऽणिमादिप्रादुर्भावः कायसम्पत्तद्धर्मानभिघातश्च ॥ ४५ ॥ प । यो । सू ३-४५

Tato'ṇimādiprādurbhāvaḥ

kāyasampattaddharmānabhighātaśca || 45/Pa| Yo| Sū 3-45

Sage *Patanjali* refers to the eight *Mahā Siddhi* obtained by mastery over the *Panca Bhuta* or five elements. The *Aṇima* is ability to make the physical body as small as an atom. Here Sage *Patanjali* refers as *Aṇimādi Siddhi*. There are eight *Siddhis* and *Laghima* among them, is very relevant attribute for non-obesity. The eight *Mahā Siddhi* will manifest after

Seedless Samādhi. The mentioning of *Añima* as the first *Siddhi* along with pointers on sufferings and solutions for the sufferings indicate that Sage Patanjali has considered obesity also among the physical disorders. Studies shows that metabolic heterogeneity among obese may be attributable to difference in adipose cell size [35] and reduction of size in cellular level is relevant to obesity.

Further Sage Patanjali says that the perfection of body and beauty is obtained by mastery over the five elements.

रूपलावण्यबलवज्रसंहननत्वानि कायसम्पत् ॥ ४६ ॥प। यो। सू ३-४६

Rūpalāvaṇyabalavajrasaṅghanantvāni kāyasampat ॥ 46|Pa|
Yol Sū 3-46

Above *Sūtra* give hints on achieving perfection of body with mastery of *Bhuta*. The qualities of the body depend on the action of five elements or *Bhuta*. The person who is master of the five elements can regulate the processes taking place in the body. When defects caused by accumulated *Karma* are removed, the body becomes beautiful. The imperfections in the physical body are due to disharmony and obstructions. These are removed by attaining perfections [36]. Further scientific studies show that in spite of variations in descriptions on beauty, as a marker of health, the smaller waist was an invariant symbol of beauty which transcends across the cultures and historical times [37]. Small waist is symbol of anti-obesity.

Life style away from nature

Due to urbanization industrialization and technological development mankind is moving away from the nature and natural living and the various body disorders are getting developed [38]. The sugar, an energy dense food item, was

developed in large scale, as part of technological development and is closely associated to obesity. There is mention of sugar cane cultivation and preparation described in *Ātharv Veda* [39]. Though ancient India was having sugar and sugar rich food items the obesity increase is of the recent past, may be due to urbanization and life style modifications along with large scale consumption of sugar [39].

In India obesity is increasing in urban areas due to increased energy dense food intake, due to availability of energy dense foods and lack of physical exercise [40] and increasing sedentary life. In nutshell, all above aspects are part of life style which is away from nature. Traditionally the problem of obesity was not considered with much severity in India due to concern of under nutrition [4]. Now there is more relevance to natural living [16] in the context of obesity increase. There are studies of various dimensions of artificial living and increase in obesity. Recent study showed that exposure to artificial light at night is a contributing factor for increase of worldwide obesity [41].

The process of obesity increase parallel to non-natural living and technological development is condensed and given in Figure 1.

This study is one of the early studies reviewing exclusively the obesity attributes in the ancient yoga texts with special references to early *Upaniṣads* like *Jābāladarśanopaniṣad Śvetaśvetaropaniṣad* and classical yoga texts like *Haṭhayogapradīpika* and *Patanjali yoga sutra*. Further attempt is made to understand the rise of obesity in the present times as detailed in Table-2.

Also this study was limited to the available texts and their English translations.

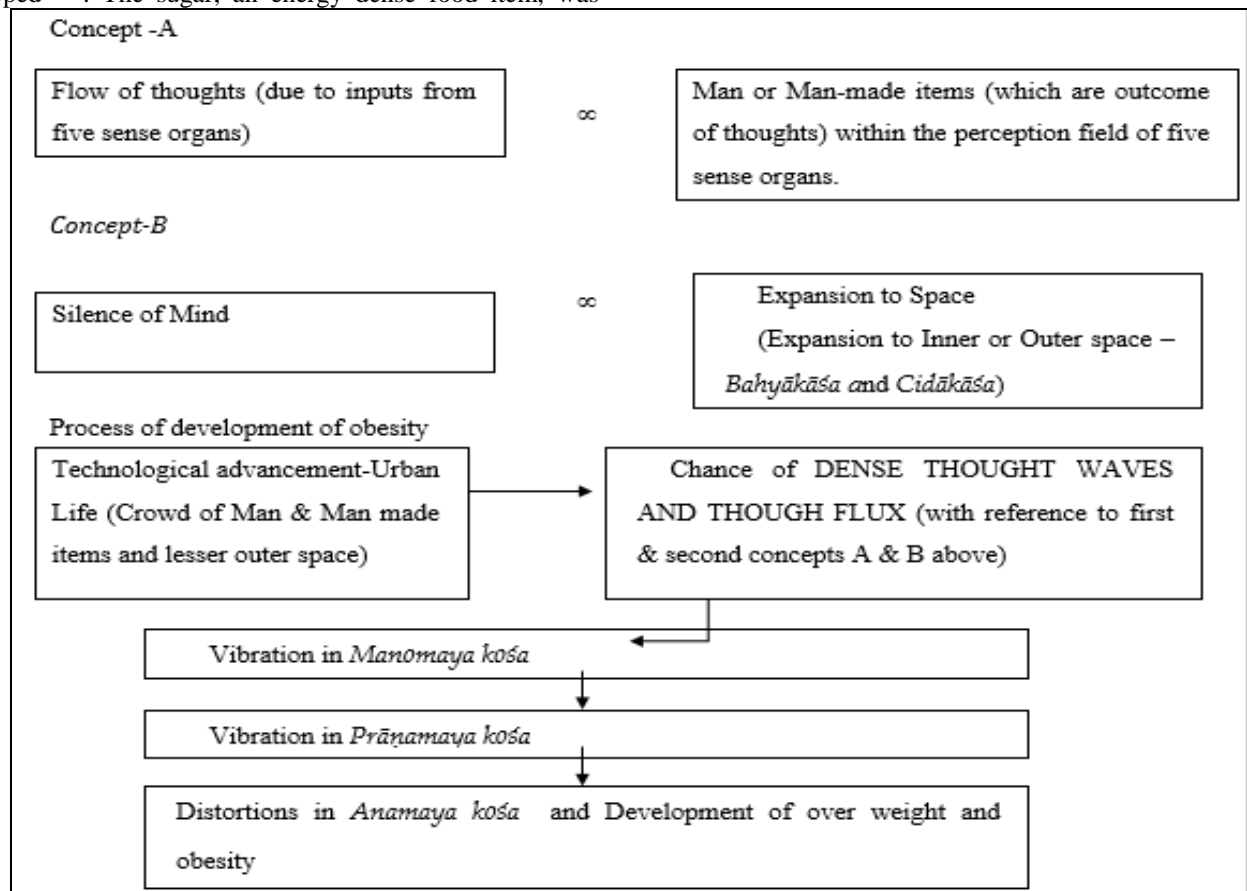


Fig 1: Away from Nature and Development of obesity

Table 1: Ancient texts with references on direct/indirect attributes of obesity.

List of yoga texts having direct/indirect obesity references	Typical obesity attributes
<p><i>Jābāladarśanopaniṣad Śvetaśvetaropaniṣad</i> <i>Taitareya Upaniṣad</i> <i>Kaṭha upaniṣad</i> <i>Maitrāyaṇi Upaniṣad</i> <i>Aruṇika Upaniṣad</i> <i>Pancadaśi</i> <i>Bhagavat gīta</i> <i>Patanjali yoga sutra</i> <i>Yogavāśiṣṭha/</i> <i>Vaśiṣṭha saṁhita</i> <i>Haṭhayogā</i> texts: <i>Haṭhayogapradīpika</i> <i>Gheeraṇḍa saṁhita</i> <i>Śiva saṁhita</i> <i>Yoga taraṅgiṇi</i> <i>Haṭha ratnāvali</i> <i>Siddhasiddhānta paddhati/</i> <i>Goorakṣa śatakam</i> <i>Haṭha tatva kaumudi</i> <i>Haṭha saṁkeeta candrika</i></p>	<ol style="list-style-type: none"> 1. Weight and body size references, qualities like <i>Laḡhima Aṇima</i>, enlargement of parts/organs 2. Concept of lightness of body after certain practices 3. References on physical leanness of body 4. Quality of digestive/gastric power after doing yoga practices 5. Removal of Lethargy, Laziness, Physical inactivity after yoga practices 6. References of eating disorders and types of food 7. Removal of excessive hunger and thirst as a result of practice 8. References on freedom from excessive sweating and bad smell 9. Reference on sleep disorders 10. Reference of attaining stillness of mind 11. Disorders of humors like <i>Kapha doṣa</i> which is linked to obesity 12. Direct references on <i>Sthaulyā</i>, fat or <i>meda</i> 13. Non duality, calmness of mind, balance of mind and other concepts for stillness of mind 14. Aspects of 'Away from Nature' and causes of obesity. No obesity in animals and trees. The urban life is away from nature 15. Urban life with unbalance in 'Sleep Food Exercise triangle'. 16. Origin of disease from mind disturbances as per <i>Yogavāśiṣṭha</i>

Conclusions

The ancient yoga texts have several references of obesity mentioned directly and indirectly. In this article, the various attributes and associations of obesity are discussed with reference to the various ancient yoga texts such as *Jābāladarśanopaniṣad Śvetaśvetaropaniṣad Haṭhayogapradīpika* and *Patanjali yoga sutra*. It was observed that more than fifteen percentages of the *ślokas* of *Haṭhayogapradīpikā* contains some or other attributes of obesity.

Further attempt is made to interpret the rise of obesity in the present times, with respect to life away from nature. Decoding various hints from these ancient texts may lead to new lines of research, for the management of obesity.

References

1. NCD Risk Factor Collaboration. Trends in adult body-mass index in 200 countries from 1975 to 2014: a pooled analysis of 1698 population-based measurement studies with 19.2 million participants. *Lancet*. NCD Risk Factor Collaboration. Open Access article distributed under the terms of CC BY, 2016; 387(10026):1377-96.
2. Muktibodhananda S. *Hatha Yoga Pradipika*. Munger: Yoga Publications Trust, 2005, 1-641.
3. Svatmarama. *The Hatha Yoga Pradipika*. First Indi. AKERS BD, editor. New Delhi: The New Age Books, 2005, 1-113.
4. Article R. Obesity in India: Opportunities for clinical research Building on What We Have Learned. 2014; (1):25-9.
5. Rshikesan PB, Subramanya P. Effect of Integrated Approach of Yoga Therapy on Male Obesity and Psychological Parameters-A Randomised Controlled Trial. *J Clin Diagnostic Res*. 2016;10(10): 1-6.
6. Rshikesan PB, Subramanya P, Nidhi R. Yoga practice for reducing the male obesity and weight related

- psychological difficulties - A randomized controlled trial. *J Clin Diagnostic Res*. 2016; 10(11):OC22-OC28.
7. Swami Lokeshwarananda. *Taittiriya Upaniṣad*. 12th ed. Calcutta: The Ramakrishnamission Institute, 1996, 1-181.
8. Lee CY, Abizaid A. The gut-brain-axis as a target to treat stress-induced obesity. *Front Endocrinol (Lausanne)*. 2014;5:117.
9. Tipton CM. The history of 'Exercise Is Medicine' in ancient civilizations. *Adv Physiol Educ*. American Physiological Society. 2014; 38(2):109-17.
10. Mondal S. Science of exercise: ancient Indian origin. *J Assoc Physicians India*. 2013; 61(8):560-2.
11. Srinivasan D. Unhinging Śiva from the Indus civilization. *J R Asiat Soc Gt Britain Irel*. Cambridge University Press. 1984; 116(1):77-89.
12. Narayana A. Medical science in ancient Indian culture with special reference to Atharvaveda. *Bull Indian Inst Hist Med Hyderabad*. 1995; 25(1-2):100-10.
13. Rshikesan PB, Subramanya P, Singh D. Sleep quality and body composition variations in obese male adults after 14 weeks of yoga intervention: A randomized controlled trial. *Int J Yoga*. 2017; 10:128-137.
14. Nagaratna R, Nagendra HR. *Yoga for Obesity*. First. Bengaluru: Swami Vivekananda Yoga Prakashana, 2014, 1-292.
15. Hariharananda Aranya S. *Yoga Philosophy of Patanjali with Bhasvati*. Fourth. Calcutta: University of Calcutta; 2000, 71.
16. Griffith RTH. *The Hymns of the Rigveda*. English. 1896, 1-506.
17. Schmiedebergs N, Pharmacol A. HHS Public Access. 2017; 41(0 2):1-23.
18. Gautam PC. *The modern English translation of The Rig Veda Samhita*. First. First, editor. Mumbai: Bharatiya vidya Bhavan, Mumbai, 2014, 1-1051.

19. Fuller NR, Burns J, Sainsbury A, Horsfield S, da Luz F, Zhang S *et al.* Examining the association between depression and obesity during a weight management programme. *Clin Obes.* 2017; 7(6):354-9.
20. Lokeshwarananda S. Svetasvatara Upanisad Translated with notes based on Sankaras commentary. Second. Kolkata: The Ramakrishna Mission institute of Culture, 2005, 1-255.
21. Yosipovitch G, DeVore A, Dawn A. Obesity and the skin: Skin physiology and skin manifestations of obesity. *J Am Acad Dermatol.* 2007; 56(6):901-16.
22. Moyen NE, Burchfield JM, Butts CL, Glenn JM, Tucker MA, Treece K *et al.* Effects of obesity and mild hypohydration on local sweating and cutaneous vascular responses during passive heat stress in females. *Appl Physiol Nutr Metab.* 2016; 41(8):879-87.
23. Gluck ME, Viswanath P, Stinson EJ. Obesity, Appetite, and the Prefrontal Cortex. *Curr Obes Rep.* 2017.
24. Okubo H, Nakatsu Y, Kushiyama A, Yamamotoya T, Matsunaga Y, Inoue M *et al.* Gut microbiota as a therapeutic target for metabolic disorders. *Curr Med Chem.* 2017, 24.
25. Gopalani, Sarmandal. Obesity Kottakkal Ayurveda Series-67. Third. Kottakkal: Arya Vaidya sala Kottakkal Kerala, 2013, 142.
26. Sharma RB, Dash VB. Agnivessa's Caraka Samhita based on Cakrapani Daat's Ayurveda Dipika. 2015th ed. Varanasi: Chowkhamba Sanskriti Series Office, 2015.
27. Guruprasad K. Understanding Shatkarmas of Yoga through Ayurveda. 2015; 3(2):109-15.
28. Swahananda S. Pancadasi of Vidyananya Swami. Chennai: Sri Ramakrishna Math, 1967, 1-616.
29. Deshpande S, Nagendra HR, Nagarathna R. A randomized control trial of the effect of yoga on Gunas (personality) and Self esteem in normal healthy volunteers. *Int J Yoga. Wolters Kluwer - Medknow Publications.* 2009; 2(1):13-21.
30. Kalra S, Jindal S. Nutrition, metabolism, endocrinology, and the Bhagavad Gita. *J Med Nutr Nutraceuticals.* 2014; 3(1):19.
31. Yogacharya Sundaram. Sundara Yogic Therapy or Marvels of Yogic Cure. 2009th ed. Bangalore: The Yoga Publishing House, 2004, 509.
32. Atreya BLS. The Vision and the way of Vasistha. Second. Chennai: Samata Books, 2005, 191.
33. Lee MH, Lee JU, Joung KH, Kim YK, Ryu MJ, Lee SE *et al.* Thyroid dysfunction associated with follicular cell steatosis in obese male mice and humans. *Endocrinology. The Endocrine Society.* 2015; 156(3):1181-93.
34. Nahhas M, Bhopal R, Anandan C, Elton R, Sheikh A. Investigating the association between obesity and asthma in 6- to 8-year-old Saudi children: a matched case-control study. *NPJ Prim care Respir Med. Nature Publishing Group.* 2014; 5(24):1-6.
35. McLaughlin T, Lamendola C, Coghlan N, Liu TC, Lerner K, Sherman A *et al.* Subcutaneous adipose cell size and distribution: relationship to insulin resistance and body fat. *Obesity (Silver Spring). NIH Public Access.* 2014; 22(3):673-80.
36. Taimini IK. The Science of Yoga. First 12th. Chennai: The Theosophical society Adayar. 2010, 1-448.
37. Singh D, Renn P, Singh A. Did the perils of abdominal obesity affect depiction of feminine beauty in the sixteenth to eighteenth century British literature? Exploring the health and beauty link. *Proceedings Biol Sci. The Royal Society.* 2007; 274(1611):891-4.
38. Attard SM, Herring AH, Mayer-Davis EJ, Popkin BM, Meigs JB, Gordon-Larsen P. Multilevel examination of diabetes in modernising China: what elements of urbanisation are most associated with diabetes? *Diabetologia. Springer.* 2012; 55(12):3182-92.
39. Gulati S, Misra A. Sugar intake, obesity, and diabetes in India. *Nutrients.* 2014; 6(12):5955-74.
40. Misra A, Shrivastava U. Obesity and dyslipidemia in South Asians. *Nutrients.* 2013; 5(7):2708-33.
41. Rybnikova NA, Haim A, Portnov BA. Does artificial light-at-night exposure contribute to the worldwide obesity pandemic? *Int J Obes (Lond).* 2016; 40(5):815-23.