

# **POPULATION HEALTH THROUGH SENSORY EXPERIENCES: LIFESTYLE AND CULTURAL INFLUENCE ON THE SENSES**

**By: Elana Berman**

## **Introduction**

The impressions of the five senses are experienced differently throughout life based on a variety of factors. Through the examination of geographical differences and community development in various cultures, it is clear that disease precedence differs. The following essay examines and identifies trends in each population segment. Every culture, living environment and financial status impacts the way of life in various regions throughout the world. This study addresses life in developed and in developing countries. Some locations utilized in the Western world include Los Angeles, California and France. Examples from the eastern world and of developing countries include urban and rural locations in India.

Disease affecting factors differ greatly between the eastern developing and western developed world. One factor, which Ayurveda<sup>i[1]</sup> considers the root of physical disease, is food, diet and digestion. Ayurveda teaches that most disease and doshic imbalance first occurs in the mahavaha srota, also known as the digestive tract.<sup>9</sup> Through the development of unplanned cities and the corresponding population increase, the availability of sustainable natural foods decreases. Many of India's metropolitan cities have developed without planning. Unplanned cities lack consideration for projected population growth and all of the necessities that an exponentially growing population requires for survival. On the opposite side of the spectrum, this essay looks at life in planned western cities. I compare and contrast the variety of sensory experiences that humans perceive while living in unplanned versus planned cities and rural versus urban environments. Disease exists throughout the world's populations. I attempt to identify causes and trends for disease occurrence through a comparison of use of the senses.

## **The Causes of Disease**

In Ayurveda, the "science of long life" there are three causes of disease according to its oldest text Charaka Samhita. First is disharmonious use of the senses, which occurs when the senses, also viewed as gateways into our body, mind and consciousness are used primarily for the pursuit of pleasure for the physical body. This disharmonious use occurs as a result of forgetting the existence of our higher selves or the existence of any divine form. Essentially, this disharmony results in conjunction with the primary cause of disease, which is forgetting our true nature as spirit.<sup>6</sup>

The second cause of disease is called prajnaparadha, which translates from Sanskrit as failure of the intellect. This intellectual blasphemy results when we hear the voice of the intellect louder than the voice of the soul. This failure of the intellect also results from the primary cause of disease, when we forget our connection to the divine. The practice of disharmonious behaviors despite the fact that we know they are disharmonious causes decision making based on the lower self. The lower self speaks to us through sensory or physical desires.<sup>10</sup>

Parinama is the third cause of disease, which means transformation or decay due to time. Time can be further defined as the act of living life. As we live and have experiences the elements of the world stress our bodies. The very act of living causes a natural degradation of the body. After all, we are not placed in this world to live forever. Rather we are here, Sankhya philosophy says, to fulfill our

karma and samskaras in order to experience life and then return to our un-manifested home in the divine form. The nature of life is to move, exist, think and participate as time moves forward. Technological advances such as flying and driving accelerate this transformation through hastened means of movement.<sup>11</sup>

The movement of the mind is at the forefront of this cause of disease. Our state of mind, in the present or future and active or distracted, directly correlates to the movement of biological time. When we live outside of the present moment, it is impossible to have single-pointed concentration also known in the realm of Yoga philosophy as dharana. With the practice of dharana, parinama slows down and harmonious use of the senses prevails. This discipline leads to slower aging and reduced impact of stressors on the body.<sup>7</sup>

## How Ayurveda Heals with the Senses

In this 5000-year-old eastern medicine lineage, the five senses of sight, smell, touch, taste and sound are used to reduce doshic and elemental imbalances in an effort to create harmony. Ayurveda aims to achieve this homeostatic state by optimizing an individual's surroundings based on individual needs. An individual's needs are determined by a combination of factors. An individual's elemental constitution<sup>12]</sup> at the time of conception, called Prakruti, and an individual's current state of imbalance, called Vikruti. With these two factors, Ayurveda treats with customized sensory therapies to bring a person to optimal health.

Each of our physical experiences in the gross body affects the deeper bodies and subtler senses. Our physical sensory intake impresses the astral senses through its effect on the chakras, which are subtle energy centers in the body. The astral body is also affected by the flow of prana, or energy, through nadis, which are energy channels in the body. These astral experiences then affect the subtlest of all bodies, the causal body. This body lies beyond the physical world. Karma and samskaras cause a soul to physically manifest in the cycle of reincarnation.<sup>12</sup>

## Introduction to the Five Senses

Ayurveda uses a variety of approaches to integrate holistic sensory therapy into healing the 3 different bodies: physical, subtle and astral. The sense of smell, while experienced in most actions in life, can be treated through the use of aromatherapy. The sense of vision can be modified through color therapy. The sense of touch can be affected through body therapies. The sense of hearing can be impacted through the use of chanting, japa and bija mantras. The sense of taste is affected everyday by diet and herbs.<sup>3</sup>

None of these senses exist independently as they each affect the sensory lens through which all other senses and experiences are perceived. It is in this context that the practice of pratyahara is a useful tool. Pratyahara is one of the 8 limbs of yoga and is the discipline of withdrawal of the senses. Through this practice we become aware of extrasensory perceptions and singular sensory experiences further emphasizing the practice of dharana with single pointed focus.<sup>4</sup>

## Case Study of Sensory Experiences in a Developing Urban Area

One of the most important resources in life is food. It represents one of the three pillars of life according to Ayurveda.<sup>13</sup> India's urban obesity rate was 24.8% in 2006.<sup>5</sup> While this disease prevalence is common in most urban environments, it is often due to a variety of increasingly sedentary lifestyle factors. In urban India it presents for some unique reasons associated with the lack urban planning, which affects the population's food resources.

A large proportion of urban India is unplanned cities and the growing disease rates and obesity

epidemic statistics demonstrate some of the consequences of improper planning. In New Delhi, the availability of sustainable food and nutrition shadows in comparison to the today's population. In order to feed the exponentially growing population of Indian cities, food must be imported from outside the region. Fertile lands are being destroyed in order to provide space for the increasing housing requirements of a growing population.<sup>15</sup> A lack of planning causes inconsideration for the fact that these new inhabitants may well have a roof over their heads but will not have access to fresh and local foods. As food undergoes longer transport time before it reaches consumers, it has to contain more preservatives. These additives affect the digestion and level of sattwa in consumers. Additionally, the longer time that passes between the time that food is taken from its source, for example plucked off a tree or harvested, the lower the level of prana and nutrition in the foods. According to Ayurveda, a high prana diet containing all of the 6 tastes and rich in fresh foods is one key component to maintaining health.<sup>9</sup>

Aside from the sense of taste and foods consumed, the lifestyle in India's unplanned cities provides a plethora of interesting sensory experience. Some of these experiences are wholesome, for instance holy sites and spiritual enclaves within the daily routine. However, many of these sensory experiences are unwholesome. New Delhi is a good example. Moving through any space all the senses are stimulated, however movement through space in Delhi overwhelms the senses with unwholesome experiences. These disharmonious experiences add to disharmonious use of the senses and may arguably contribute to India's growing obesity rates.<sup>14</sup>

Pollution generation is increasing from construction projects, transportation emissions due to automobiles and waste quantities. The smell of diesel permeates streets. The sound of begging homeless and insistent shop keepers fight to be heard of roaring motor bikes and revving rickshaws. Pedestrians feel gusts of sweltering hot air polluted by the dust of nearby construction sites. The sight of dirt and trash amongst hurrying people moving rapidly through their day pollute the visual senses. The senses are stimulated if not over stimulated by the pungency of life in New Delhi. All of these experiences are primarily rajasic and tamasic, causing unsettling of the mind. Disease starts in the subtler body before manifesting in the physical body and relocating to deeper srotas. It is therefore arguable that these unwholesome sensory experiences contribute to physical disease.<sup>16</sup>

## Case Study of Sensory Experiences in a Developing Rural Area

As history demonstrates, people settle in areas where life is viable. Some of the earliest traces of civilization in the Mesopotamia Era near the Nile River demonstrate that. People gather near rich soil and water sources where one of their three basic needs of life, is most easily sustained. Rural towns and villages have a produce output that mirrors or in the case of agriculture towns exceeds, the needs of local people. As a result, locals have access to fresh, unpreserved and natural food sources thereby promoting healthier diet and digestion. With Ayurveda teaching that the root cause of disease is in digestion, arguably rural inhabitants would have less disease as a result of the availability of healthier foods.

Examining the obesity and obesity risk rates in metropolitan and rural areas of India demonstrates a drop in incidence in rural populations. A 2001 study concluded that obesity rates in urban Indian slums is growing and in need of timely addressing and public education.<sup>1</sup> Likewise the incidence of coronary artery disease, hypertension, and Diabetes Mellitus Type 2, all of which are commonly associated with excess body weight, are significantly more prevalent in urban areas. This increased prevalence is stated to be a result of sedentary lifestyle and higher fat intake.<sup>2</sup> It is reasonable to conclude that while growing in incidence, the obesity rates in rural India shadow in comparison to that of metropolitan India. The unique question is what causes that increased fat intake and sedentary lifestyle from an Ayurvedic Perspective.

## Comparison of Rural and Urban Sensory Experiences

When considering the other sensory experiences of rural India, they tend to be more harmonious

than that of urban areas. The eyes are exposed to plentiful natural images of trees, plants, the Himalayan mountain range, and other life forms living in their natural habitats. Witnessing the way other organisms live harmoniously in their environments and being surrounded by so many organic life forms, influences the way in which humans live and reinforces that humans thrive in natural environments too. When in a metropolitan city, people lack this experience and live mostly in between concrete and constructed walls, inorganic surroundings. Their eyes are often tired and dry due to the Vata and Pitta doshas prevalent in an urban environment and then lack the nourishing tarpana therapies needed to rejuvenate.<sup>8</sup> This causes the metropolitan population to lose touch with nature and consequently, their true nature as spirit.

In rural environments, the sense of smell is less synthetically influenced and more from natural sources. The surrounding flowers and plants prevail as well as the daily work performed in livestock, farming and agriculture industries. The rural population is more commonly immersed in plants, animals and produce, all naturally produced products. While the majority of people may consider not all of these smells pleasant, they are all naturally derived smells, which bring people closer to our true nature as spirit. Adversely, in an industrialized urban environment, the smells that prevail are those of city life and work including print cartridges, automobile emissions, mostly artificial and pollutant smells.

The sense of hearing in rural India is permeated by animal sounds of nearby cattle and shepherds passing through. The natural sounds of wind and leaves outweigh the motorbikes, rickshaws and buses passing through. In a metropolitan city the opposite is true. While planned cities present parks and opportunities to be immersed in planned natural settings, even so, the sound of transportation and business supersedes.

The sense of touch differs in the way people move, interact, and live. The work of rural versus metropolitan Indians differs and results in more harmonious experiences with nature in the rural environment. In cities, people do not touch each other and interact physically. In smaller towns and villages, people are friendlier, more intimate and more often physically interact. It is fair to generalize that the rural population experiences more physical intimate contact than the metropolitan population.

## **A Comparison of Sensory Experiences in France and Los Angeles**

In France, architecture and planning prevail. French culture relishes aesthetic beauty and takes every opportunity to optimize sensory experiences. One of France's best-known strengths is cuisine. French food contains high quality fresh ingredients. One French ideology is to enjoy and indulge in each experience that we have. Despite the use of whole milk, full cream and rich chocolate ingredients, France has a lower obesity rate compared to America.

One different factor is mode of transportation. In cities like Paris, Lyon and Marseille, the three largest cities of France, the majority of the population use public transport for their daily commutes. These cities have planned networks and bus services that cover the entire metropolitan areas creating links between all suburbs and housing areas with most places of employment. Shops and outdoor markets are planned along the way, which many residents reach via walking on their route. By taking the metro, buses and walking to and from work and to achieve most of life's daily needs, the sensory experience of the French differs greatly from that of Americans.

In Los Angeles, the majority of the population travels through town in a car since public transportation is limited, leaving patches of unconnected areas. By creating a sprawling city with limited transport services, the population is additionally forced to sit in traffic in their cars. In the following comparison, we will use a car with closed windows, as that is the most common method of use for modern vehicles.

These modes of transportation impact the amount of physical activity required by populations. Sitting in a car as compared to walking to the metro, riding the metro and walking out of the metro deliver very different sensory experiences. Walking provides movement of the body through space

allowing nature's elements like wind, rain and temperature to be felt. Being in a car allows a controlled environment and climate in which nature's changes are not as greatly experienced due to the protective nature of the vehicle.

Additionally, walking through a French city provides an opportunity to smell the plants and trees on the street, wafts of baking baguettes and croissants from boulangeries and dog feces which sprinkle the ground by day's end. Comparatively, a car will provide a concentrated smell of body odor and possibly car emissions. There is a limited exchange between the natural world and constructed city to the interior of a car than when an individual walks down the road.

## Conclusion

The very nature of our lives makes us susceptible to an ever-changing variety of sensory experiences, which affect our elemental make-up, every millisecond. It is within our reasonable control to choose our surroundings. An Ayurvedic lens helps us to decipher what is complementary to our natures. At the same time, some circumstances and situations are more challenging to change. Both the harmonious and disharmonious sensory experiences in our lives affect the incidence of health and disease.

Urban planning has the ability to affect disease incidence as a result of the sensory experiences it addresses, creates and alleviates. From waste management and transportation to lifestyle and food sources, urban planning helps provide more harmonious environments. That said, rural life helps even more. Rural living keeps people closer to nature than any urban environment can possibly try. Being in harmony with nature keeps us in sync with our true nature as spirit. When we supersede the sensory distractions that can get in the way of harmonious living life, disease has the ability to disappear. Whether unplanned or planned, rich or poor, rural or urban, the sensory experiences that surround our lives are arguably within our control. If urban environments explored ways to integrate rural lifestyle qualities into its planning and construction, the prevalence of disease would diminish in urban areas.

That is not to say that when urban diseases diminish no disease will exist. In the cycle of life and karma we each have lessons to learn and pain and disease to experience as our teachers. By cutting through the disharmonious lifestyles of an urban environment, people may have the opportunity to be even closer to their samskaras and deal with them directly. Though it is also arguable that the disease and disharmonious experiences of an urban environment may be the perfect medicine for some people. As after all, we are all exactly where we need to be and learning the right lessons that we need to learn at any given phase of life. Wherever you live, if you live consciously with awareness for your surrounding and sensory experiences, you can accept the rajas, which will transform, if conscious, into sattwa. If we take the research, the facts and the stories, and bring it into the now, we can live in the present.

## Bibliography

1. Misra A, Pandey, RM, Devi JR, Sharma R, Vikram NK, Khanna N of The Department of Medicine, All India Institute of Medical Sciences, New Delhi, India, "High prevalence of diabetes, obesity and dyslipidemia in urban slum population in northern India." International Journal of Obesity and Related Metabolic Disorders: Journal of the International Association for the Study of Obesity (2001, 25(11):1722-9)  
<http://ukpmc.ac.uk/abstract/MED/11753596/reload=0;jsessionid=BE09C556E9D20A03D3038054C94B1B03> [3]
2. "Prevalence of type 2 diabetes mellitus and risk of hypertension and coronary artery disease in rural and urban population with low rates of obesity" by Ram B Singh, Sarita Bajaj, Mohammad A Niaz, Shanti S Fastogl, M Moshiri in The International Journal of Cardiology (September 1, 1998).  
<http://www.sciencedirect.com/science/article/pii/S0167527398001417> [4]

3. Halpern, Marc Dr., Principles of Ayurveda (Tenth Edition, September 2010). Page 325.
4. Yoga Sutras of Patanjali. Sutras 2.54 - 2.55 Pratyahara or Sense of Withdrawal  
<http://swamij.com/yoga-sutras-25455.htm> [5]
5. Page 3 Chart PPT by Anoop Misra Director, and Head Department of Diabetes and Metabolic Diseases Fortis Hospitals, New Delhi. [www.sph.umn.edu/img/assets/25422/Anoop\\_Misra.pdf](http://www.sph.umn.edu/img/assets/25422/Anoop_Misra.pdf) [6].
6. R.K. Sharkma, Bhagwan Dash. Volume 1, Charaka Samhita I:56, Page 41
7. Yoga Sutras of Patanjali. Sutras: 3.1-3.33: Dharana, Dhyana, Samamdhi  
<http://swamij.com/yoga-sutras-30103.htm> [7]
8. Vagbhata's Astanga Hridayam. Volume 1, I-3.5, Page 283
9. R.K. Sharkma, Bhagwan Dash. Volume 1, Charaka Samhita V:1-V:13, Page 105-111
10. Halpern, Marc Dr., Principles of Ayurveda (Tenth Edition, September 2010). Pages 5 - 6.
11. Halpern, Marc Dr., Principles of Ayurveda (Tenth Edition, September 2010). Pages 6 -7.
12. Halpern, Marc Dr., Principles of Ayurveda (Tenth Edition, September 2010). Pages 199 - 202.
13. Halpern, Marc Dr., Principles of Ayurveda (Tenth Edition, September 2010). Pages 41-43.
14. Malhotra, Shriya, "Population Health Through Inclusive Urban Planning: Healthier Communities and Sustainable Urban Development in Indian Cities" in Sustainable Development in the Urban Environment (2010).
15. Malhotra, Shriya, "Population Health Through Inclusive Urban Planning: Healthier Communities and Sustainable Urban Development in Indian Cities" in Sustainable Development in the Urban Environment (2010). Page 6.
16. Halpern, Marc Dr., Principles of Ayurveda (Tenth Edition, September 2010). Pages 240 - 245.

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[4] <http://www.sciencedirect.com/science/article/pii/S0167527398001417>

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[6] [http://www.sph.umn.edu/img/assets/25422/Anoop\\_Misra.pdf](http://www.sph.umn.edu/img/assets/25422/Anoop_Misra.pdf)

[7] <http://swamij.com/yoga-sutras-30103.htm>