



Review Article

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BINGE EATING DISORDER – INTEGRATION OF AYURVEDA AND YOGA

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ABSTRACT:

Eating Disorders (ED) classified under psychosomatic disorders. *Ayurveda* states it as *Ubhayashtrita vyadhi (Shareera/ Manas)* as the site, where its impairment leads to manifestation of ED. Improper diet, emotional health (anxiety, stress), behavioral/ mood changes, body shaming, bullying etc. as most common cause in manifestation of ED like anorexia nervosa, bulimia nervosa and *binge eating disorder (BED)*. Mind-body spectrum- 4 clusters hold vital entity in ED as it explains the connection with the physical thoughts, feelings and behavior with their physical symptoms.

ED affect at least **9%** of the world population and **2-3 %** in India involving mainly women who are at higher risk¹. ED leads to eating distress syndrome (EDS) which are serious, potentially life-threatening conditions that affect a person's emotional and physical health. In Indian population, they do not open up at the beginning of symptomatology, hence prevalence is on lesser number. General consequences of ED are affecting almost all system of an individual. BED is more seen in lifestyle disorders like diabetes, obesity etc. Researchers suggest that **25% to 50%** of obese patients who seek weight-loss treatment suffer from problems with BED.

Patrimony of *Ayurveda*– *Agni, Aama, Manas, Tridosha, Sapthadhatu, Trimala* etc. are the *Siddhantas* (theorems) help in tackle the BED. As its Psychosomatic disorder understanding essence of *Ayurveda* with Yoga would be beneficial as an integrative therapy.

KEY WORDS:

ED, BED, *Ubhaya ashtritha*, mind body spectrum, eating distress syndrome, *Yoga*.

INTRODUCTION

Eating Disorders (ED) is one among behavioral conditions characterized by severe and persistent association with distressing thought of emotions.

Binge eating disorders (BED)² states as frequent consumption of unusually large amount of food in short time and feeling unable to stop and further affecting at psychosomatic level.

Binge eating often evokes feelings of guilt and shame, and a person binge eating may eat alone or be secretive about their eating habits. This may lead to weight gain and health issues related to Obesity, which is a leading cause for T2 DM, Heart diseases etc.

In India eating distress syndrome can be found as a silent presence for ED to manifest in the population.

How to Define Binge?

- Eating until uncomfortably full
- Eating to ease stress and anxiety
- Recording weight fluctuation
- Consuming excessive amounts of food in short periods
- Feeling desperate to control eating and lose weight
- Self-disgust, guilt and depression after binge eating

History:

1951 Walter Hamburger described “a compulsive craving for food which is uncontrollable and must be satisfied”

1959 Albert Stunkard described “enormous amounts of food may be consumed in relatively short periods is regularly followed by severe discomfort and self-condemnation”

1980 binge behaviour included in DSM-III diagnostic criteria for bulimia

1994 BED included DSM IV as part of eating disorders

2013 BED recognised as a distinct eating disorder in DSM V

2015 FDA approves lisdexamfetamine dimesylate treatment of BED

AETIOLOGY:

Trauma: Many of the instance BED is a method used to attempt control emotions, these emotions often pile up from traumatic experiences which happens throughout the childhood which may include sexual abuse, neglect, witnessing horrific crime and more

Genetics: People who have BED have low dopamine levels; it may be having prevalent history running in the family.

Body image: BED people have low self-esteem, negative thoughts which further triggers the binge.

Co-occurring mental status: depression, OCD, phobias, substance abuse etc are the comorbidities of present issue

Gut Microbiome and its impact on Health: Body composed of trillions of bacteria, viruses and fungi which is called as microbiome and health of an individual is mainly dependent on the gut microbiome. First exposure happens when we pass through mother's birth canal, as we evolve these microbiomes diversify and they affect the life by controlling the digestion of food, immune system, CNS, endocrinal, CVS etc. The bidirectional communication network includes the CNS, both brain and spinal cord, ANS, the enteric nervous system and hypothalamus pituitary adrenal axis. The ANS with sympathetic, parasympathetic limbs drives both afferent signals arising from the lumen and transmits through enteric vagal pathways to CNS and efferent signals from CNS to the intestinal wall. Feeding behaviours are regulated by different brain nuclei, such as the arcuate nucleus (ARC), paraventricular nucleus of the thalamus (PVT), nucleus of the solitary tract nucleus (NTS), and bed nucleus of stria terminalis (BNST).

Effects of Dysbiosis of human microbiota:

1. Gut brain Axis- Pneumonia, Psychiatric disorders, Autism and neurodegenerative disorders
2. Heart Diseases- Heart Failure and Atherosclerotic changes
3. Gut skin axis- psoriasis, Acne vulgaris and skin cancer
4. Metabolism- Obesity, T2 DM, Mitochondrial dysfunction and cancer

5. Gut lung axis- Asthma, Obstructive pulmonary diseases and lung cancer

According to Ayurveda, the digestion, metabolism and assimilation of nutrients is controlled and regulated by Agni and it can be cause for dysbiosis. The site of *Agni* is *Grahani* it is so called because of its power to retain the food; it is situated above the umbilical region and is supported and nourished by the strength of Agni.

Role of Agni in Gut-brain axis³:

The bidirectional nature of the axis is crucial in understanding of *agni* as well. If *agni* (digestive fire) is affected by physical cause like *Viruddha ahara* (improper diet) it affects the *Tridosha* leading to *Aama Utpatti* further affecting functioning of *Saptha dhatu*, *Trimala*, *Ojas*, *Manas Agni* in *Sama avastha* (balanced state) is responsible for *niroga avastha* of an individual while in *vaikrit avastha*(*vishama*, *teekshana*, *manda*) it is responsible for *roga utpatti*.

“Shareeramapi samtvam anuvidhiyate, satvam cha shareera” *Cha Sha* 4/36

Manas/ Satva and *shareera* both are interlinked when we take up for Psychosomatic approach of BED

References	<i>Shareera</i>	<i>Manasa</i>	<i>Srotas</i>	Reasons
1. Madhava Nidana ⁴ 2. Charaka Vimanasthana ⁵	1. <i>Aati ambupaana</i> - excess water intake 2. <i>Vishamaashana</i> - improper digestive power 3. <i>Veghadhaarana</i> - holding natural urges 4. <i>Swapna viparyaa</i> - lack of normal sleep 5. <i>Kale satmya + laghu bhukta anna</i> - won't get digested	6. <i>Irsha</i> - jealousy 7. <i>Bhaya</i> - fear 8. <i>Krodha</i> - Anger 9. <i>Pariplutena lubhdhena</i> - with confusion/ for let go stress again and again 10. <i>Ruk nipidita</i> - suffering from pain 11. <i>Dainya nipidita</i> - suffering from depression 12. <i>Pradhveshayukta sevyamana</i> -	<i>Rasavaha</i>	Gets affected by “ <i>Chintyanam atichintanam</i> ” (<i>Manasa</i>) “ <i>Vidahi annapana ati snigdha ushna drava</i> ” in nature

		having aversion of food/ negative thoughts about things and person	<i>Annavaaha</i>	<ul style="list-style-type: none"> • <i>Atimatra</i> • <i>Akala</i> • <i>Ahitasya bhojana</i> <i>Annavaahini</i> vitiating takes place affecting <i>agni</i>
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Samprapthi Vighatana:

Nidana Sevana (Shareera and Manasika) factors *Vata, Kapha pradhana Pitta kshaya + Rajo* and *Tamo guna vikruti* it affects Gut Brain Axis (Dysbiosis) in relation with *Agni vikruti* specifically *Vishamaagni* features with or without *Aama*. Combination of all the above factors makes person agitated, stressful, increasing cravings of food to pacify emotional and physical disturbances. Secretive eating leading cause of obesity, then faces guilt (Body image) and starts to purge.

This will be on and off mechanism leads to Binge eating disorder (BED)/ *Rasavaaha srotovaigunya Ubhayaashritha manovikara vyadhi*

Integrated Management:

<p>Ayurveda⁵- Classical:</p> <ol style="list-style-type: none"> 1. <i>Nidana Parivarjana</i> 2. <i>Deepana + Pachana- Aama hara+ Agni deepana</i> 3. <i>Tikta, Kashaya pradhana snehapana</i> improvise <i>Agni</i> calm the mind. 4. <i>Abhyanga + Swedana</i> to pacify <i>vikruta vata</i> and <i>kapha</i> 5. <i>Virechana</i> to stabilize the vitiating <i>pitta</i> and remove it with vitiating <i>vata</i> 	<p>Yoga⁶: Rooted Indian philosophy and has been a part of traditional Indian spiritual, self-care, and medical practices.</p> <ul style="list-style-type: none"> • <i>Asana, Pranayama, Dhyana</i>, etc are the components used in healing aspect, which influences weight control behaviors and eating disorders by multiple mechanisms aiming at unifying mind, body, and spirit, increasing awareness and body reactivity.
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<p>and <i>kapha</i>, looking into <i>bala</i> of the subject.</p> <p>6. <i>Shirodhara</i> – stabilizes good hormones</p> <p>7. <i>Sneha</i> and <i>Kashaya Basti</i> maintain gut health.</p> <ul style="list-style-type: none"> • Alternate method <i>Sadyovamana</i>, <i>Sadyo virechana</i> also can be suggested. • <i>Rasavaha+ Annavaha srotas chikitsa</i> concept to be undertaken. • The <i>vyadhi</i> may leads to life style disorders- <i>Vishamaagni + Sthoulya chikitsa</i> management can be undertaken. • When healthy individual and diseased subjects follow <i>dinacharya</i> (daily regimen), <i>ritucharya</i> (seasonal regimen) concept, <i>Pathya Apathya</i> (dos and don'ts) properly he can avoid ED. 	<ul style="list-style-type: none"> • <i>Yoga- Mudra- Bandha</i> has been shown to modulate plasma serotonin levels in healthy young individuals as well as in patients with depression. • Serotonin dysregulation in eating disorders is thought to induce dysphoric mood; and by reducing dietary intake, plasma tryptophan availability might be reduced, which modulates brain serotonin activity and thus increases mood. • <i>Yoga</i> works as antidepressant and anxiolytic effects, in healing eating disorders. • <i>Annamaya kosha- shat kriyas</i>, physical exercises- <i>Asana's</i> Dynamic and relaxing. <i>Pranamaya Kosha- Kapala bhati, Vibhagiya pranayama</i>, Full yogic breathing, <i>surya/ Chandra Anuloma villoma, nadishuddhi pranayama, cooling pranayama. Manomaya kosha- Dharana-</i> focusing on good thoughts, <i>Dhyana</i> – culturing the mind. <i>Vignyanamaya kosha</i> and <i>annanda maya kosha-</i> with some good motivational talks, <i>yoga</i> therapy counselling.
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DISCUSSION:

Dietary restraint affects the cognitive behavioural of the individual, here mainly because of restraint there will be necessary calorie deficient and subject undergoes binge on and off leading to BED. In our classics we have *lokapurusha samyavada* (*Panchamahabhuta Siddhanta*) as like universe our body has similar existence, for normal functioning of body *Tridosha* especially for 'mind body gut regulation' *Vata* with *pitta and kapha* is important. *Ahara* has been given prime importance as it is important for sustenance of life, hence if diet

restraint is done it affects the nourishment of *uttarottara dhatu* etc, affecting subject's emotions, thoughts, etc.

Many psychological models have proposed that binge eating is preceded by the experience of negative affect in the form of distress or depression as (*Mana + Satva*) both involved affecting the cognitive behaviour. As there is guilt feeling arisen because of body image, emotional disturbances affecting the hormonal pathways to ease again binge eating is used as a way to cope with or to avoid these negative emotions.

Low self-esteem (affecting the *Satva*) as BED is leading for obesity, when one attains the state due to society bullying there will be negativity surrounded. This affects once emotional thought (*Satva*), *Raja* and *Tama dosha* will be in *vrudhhi* state hence emotional disturbances, thoughts of negativity will be engulfed.

Subjects will be having many thoughts as eating will pacify the cognitive impairment hence, they will be doing binge often. But at certain point when their physical appearance affects their quality of life like "if I eat, I will be fat". Further diet restriction will be done which again cause food cravings causing dysbiosis of gut microbiota. Which can be understood at the level of *Rasava*, *Annavaha Srotas vikara*, *ahara paka* impairment and *Aama Utpatti* (Indigested food manifesting the diseases).

As per Ayurveda *Nidana parivarjana* (prevention is better than cure) first line of treatment as to get rid from the aetiological factors. *Deepana* and *pachana* medicines like *chitraka*, *shunti*, *pippali* for *agnideepana* and *aama nirharana*. *Tikta Kashaya rasa pradhana* medicine like *panchatiktaka guggulu grita* can be given for *snehapana* to improvise gut health. *Abhyanaga* and *swedana* will help in stabilizing the *vikruta shareerika dosha*. *Virechana* helps in normalizing and bringing back the gut health into normalcy followed by *samsarjana krama* to maintain the *agni*. *Shirodhara* with *brahmi* or *ksheerabala taila* to calm the excited neuronal pathways to stabilize the cognitive emotional pathway. *Basti* (*Sneha* and *Kashaya*) will help to stabilize the gut microbiota by stabilizing the *tridosha* (*shareerika* and *manasika*). *Shamanoushadhi* like having *deepana*, *pachana*, *sramsana*, *anulomana* etc qualities should be given.

Yogas the divinity tells that in Upanishads there is a concept of *pancha kosha*, entire universe is made up of matter/ *Anna*, and its physical personality depends on *Annamaya kosha* 1st layer which consists of *pancha mahabhutas*, and our body is permutation and combinations of various chemicals which join with molecules, cells, tissues, organs etc. these are controlled by nervous, chemical hormones to bring out movement and actions in each and every cell.

Annamaya kosha functionality, like uniform harmonious flow of *prana* keeps it up alive controlling entity is *Pranamaya Kosha* 2nd layer. 5 *Prana's* are there which attribute different functions in body, here we can take derangement of *Samana* and *Vyana*.

Manas is important entity, that is *manas* and *chitta* gives conglomeration of thoughts and gives response by action of sense organs. These functions are controlled by *manomaya kosha* 3rd layer its imbalances lead to stress manifestation and other emotional imbalances. Depression can be a major triggering cause of binge eating and can control through *yoga*.

Vignyana maya Kosha which depicts about true existence, it gives true guide to *manomaya kosha* to discriminate good or bad which is highly affected in present ED. Further the final state of bliss *Annandamaya kosha* is also affected.

Psychosomatic illness ED- is an *Adhija vyadhi* and is *samana* here when mind is agitated the violent fluctuations happens in the flow of the *nadi's*, the *prana* flows in wrong paths without proper rhythm and harmony. Further they cannot maintain the stability of the *Jeeva*, even cause disturbances in digestion, metabolism and lead to cause of illness- ED.

CONCLUSION:

In India one or other is suffering from one kind of ED. It is not diagnosed properly as patients won't open up, as per the studies it has wider range of effects on once health. Hence there is necessary of brief understanding of disease its manifestation, hazardous effects on once health, its management concept. Further with the integration of the knowledge of Ayurveda and Yoga concepts linking both *Shareera* and *Manas* as an *Ubhayashrita Vayadhi*, a proper treatment protocol can be implemented accordingly to heal the mind body spectrum illness- BED.

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