

Comparative Study

Emotional eating & personality type A and type B behavioural patterns in adults: A comparative study

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ABSTRACT

Type A and B behavioural patterns have been getting more reach to understand personality in a more 'black and white' construct. Eating in response to an emotional state could have an impact based on these constructs. In fact, there has been evidence that emotional dispositions are part of personality (Pervin, 1975). The present study aims to examine whether and which of the types of personality, with respect to Type A and Type B behaviour patterns influence emotional eating in adult males and females via a comparative and descriptive study. The objectives were to determine the significant relationship between Type A and the Emotional Eating dimensions – Anger, Anxiety, Depression and Positive Emotions, significant relationship between Type B and the Emotional Eating dimensions – Anger, Anxiety, Depression and Positive Emotions, the significant difference in emotional eating between the adult males and females, compare the males and females of the sample for Type A and Type B personality and finally to find out whether Type A and Type B differ with respect to levels of emotional eating. The Emotional Eating Scale (EES) was administered on 31 Type A and 32 Type B personality patterning individuals (N = 63) in Chennai. Pearson's Correlation, Independent Sample Mann U Whitney Test and Independent Sample t-test were used with the help of statistical package for social sciences (SPSS) Version 21.

Keywords: *Chennai, Personality, Gender, Emotion, Eating Pattern*

While food quenches one's hunger, it also affects emotions. It may be a need for some and to others it is just cravings at numerous occasions than others. It could also be that emotions that one is experiencing can also initiate an eating pattern which has nothing to do with hunger. Having mentioned that, there is a tendency is certain individuals than others to show the pattern of emotional eating. There have been a multiple sectional derivative when it comes to understanding the personality of human beings, let alone, segregating someone into having a sole construct in their behaviour and reactions to the environment as well as their selves.

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Personality – Type A and Type B

Personality refers to “individual differences in characteristic patterns of thinking, feeling and behaving” (Encyclopaedia of Psychology, 2019). It is the unique arrangement of characteristics and behaviour that comprises an individual’s adjustment and assimilation towards life and what it gives. This may include major traits, interests, drives, values, self-concept, abilities, and emotional patterns. (American Psychological Association, 2019).

There have been various divisions of understanding personality with the examples of 16PF and the Big Five. The former being a theory proposed by the infamous psychologist Raymond Cattell (1949) who developed a taxonomy of sixteen different personality traits that could be used to describe and explain individual differences between people's personalities. Whereas, Big Five was created by Lewis Goldberg who advocated heavily for the five primary factors of personality (Ackerman, 2017). His work was expanded upon by McCrae & Costa, who confirmed the validity of the Big Five or commonly called OCEAN Model. Its domains contained openness to experience, conscientiousness, extraversion, agreeableness, and, neuroticism.

According to the Big Five there were no distinctive differences in the personality patterns in these eating behaviours, except that emotional eating had stronger associations to the Neuroticism (particularly depression) and Conscientiousness domains. There may be theoretical explanations for the interconnectedness between emotional and external eating. For example, it has been suggested that emotions and environment may operate conjointly in overeating, as anxiety has been shown to enhance the reactions to external cues in overweight persons (Slochower, Kaplan, & Mann, 1981). Theories of emotional eating posit that many individuals eat not due to hunger, but in an attempt to distract from, cope with, or regulate negative or threatening emotional states or experiences (Bruch, 1973; Heatherton & Baumeister, 1991; Macht, 2008).

The model has since, received much attention. However, another variance in personality types came into the picture with Type A/B behavioural patterns being identified especially amongst the working class.

People with Type A personality are typically characterized by attributes like aggressiveness, hostility, unbridled ambition, competitiveness, high needs for achievement, impatience, time urgency, punctuality, multitasking, etc., (Wright, 1988). High levels of stress have been related to the Type A pattern (Caplan & Jones, 1975). Howard, Cunningham, and Rechnitzer (1976) found people with Type A personality, as compared to Type B personality, reported higher workloads, longer work hours, and more travel days per year for business purposes. Carver and Glass (1978) found small to medium levels of frustration which led to aggressiveness among Type A persons. Moreover, Type A pattern has been associated with other health complaints such as headaches, indigestion, loss of appetite, and depression (Matteson & Ivanevich, 1982).

People with Type B personality usually tend to be more tolerant and friendly towards others, and are more relaxed in general, without feeling any guilt. They also are more in touch with their creativity and are reflective about their experiences. They display lower levels of anxiety and higher levels of imagination. They are also not the most competitive in nature and are patient. They tend to be humble and are not often seen bragging or bringing others down if they encounter a failure themselves. However, they have problems meeting

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deadlines and keeping up with tasks, especially if there are too many huddled in at once. They usually seem to be in no rush or hurry and find most of their time as leisure time. They may even have more inclination towards their hobbies and passion than climbing the success ladder career-wise. They may not necessarily feel as much as emotions on the same levels as that of Type A.

Despite the balancing of the two behavioural patterns, there were a number of problems with the type A and B approach. Such approaches have been criticized for attempting to describe complex human experiences within narrowly defined parameters. Many people may not fit easily into a type A or B person.

A longitudinal study carried out by Ragland and Brand (1988) found that as predicted by Friedman Type A men were more likely to suffer from coronary heart disease. Yet the investigation of the way that people with type A personality experience and cope with stress, was yet to be explored further.

Emotional Eating

As personality comprises as the coherent pattern of affect, cognition, and desires (goals) as they lead to behaviour (Revelle, 2013), there is a chance that emotional eating has certain pre-disposed individuals more inclined towards it.

Emotional eating occurs when emotions, usually negative than positive trigger food intake (Willner, 1998). Emotional states and situations can have a monumental effect on eating behaviour that goes beyond our physiological need for food. Geliebter and Aversa (2003) define emotional eating as food intake that is triggered by strong emotions, both negative and positive, rather than to our internal hunger cues. The hot fudge sundae that you choose to eat after a depressing day or for a celebration is not necessarily due to hunger or your need to fulfil your daily recommended nutrient intake, but because it soothes you or makes you feel happier. Across cultures, food is used for celebrations such as weddings, birthdays, or after a sporting win and thus, it is likely that positive affect and food intake are related through associative learning (Patel & Schlundt, 2001).

Likewise, the stress of final exams may lead someone to indulge in a pint of Ben & Jerry's ice cream. Eating a small amount of sweet foods has been shown to improve negative mood states immediately, albeit temporarily (Macht & Mueller, 2007).

Eating in response to an emotional state is convenient because food surrounds us and is an intricate part of our celebrations from holidays to personal milestones, our social life, business meetings, and even our mourning. This is something not observed in other animals and why researchers believe eating is more than just replenishing our energy (McGrew & Feistner, 1992). Emotional eating has been associated with psychopathology including symptoms of anxiety and depression (Goossens, Braet, Van Vlierberghe, & Mels, 2009).

Emotional eating is based on psychosomatic theories that regard overeating as a compensation and reaction to negative emotions, having psychological roots in inadequate relationships during early childhood (Bruch, 1961, 1973). Emotional eating would be expected to be related to depressive emotions. Emotional eating was positively associated with several facets in the domain of Neuroticism, such as features of depression, and negatively related to facets in the Conscientiousness dimension that measures goal-directed

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behaviour. Findings for external eating were sparser but heading in the same direction as for emotional eating. Restrained eating was likewise related to more depressive features in Neuroticism, and to the Openness domain (Heaven et al., 2001). Studies combining the DEBQ with other psychological tests have found restrained eating to be related to higher self-esteem (van Strien, Frijters, Roosen, Knuiman-Hijl, & Defares, 1985), contradicting the findings on more depression in the student sample, and furthermore to perfectionism (McLaren, Gauvin, & White, 2001). Emotional eating was related to depressive features but also a trait such as lack of patience (van Strien et al., 1985).

Despite positive expectancies that eating with help regulate emotions and facilitate coping, emotional eating has been implicated as a correlate and precursor to serious mental- and physical-health problems including depression, binge eating disorder, and obesity (e.g. Braet et al., 2008; Ganley, 1989; Stice, Presnell, & Spangler, 2002). Given the reasons why individuals emotionally eat, there is some reason to expect direct and indirect associations between emotional eating and shyness and preference-for-solitude. Because emotional eating and overeating are more likely to occur when individuals are alone (e.g., Ganley, 1989), it is possible that youth who are both shy and prefer solitude, who, by definition, spend considerable time alone, are at risk for emotional eating. Yet, indirect effects are also plausible. Shy emerging adults experience significant levels of internalizing distress (in the form of anxiety, depression, and loneliness; Nelson et al., 2008; Wang et al., 2013) and also difficulties with emotion regulation (unlike youth who prefer solitude; Nelson, 2013), all of which are associated with emotional eating (e.g., Macht, 2008).

Rationale

We, as humans, have often indulged in eating even when we aren't really hungry. Sometimes, it could be because we are bored, while other times, it might be out of craving rather than hunger. During the lockdown now in COVID19, we tend to be eating a lot more than we previously were, irrespective of the weight gain or loss. This could be what would be stress induced eating behaviour. However, we tend to eat when we are simply elated and happy, as well. It could be the heightened emotions that one experiences and to either counter it (in case of negative affect) and/or enhance it (in case of a positive affect) from the perceived situation. It may be a social drink to celebrate a promotion at one's workplace or a tub of ice-cream after a break-up.

If the same situation is faced by two completely different individuals, would they both react the same way? If one copes with the loss of a pet dog by eating chips all day and sulking, the other may mourn for a while and grieve by being more productive for the sake of others and the deceased. Many studies have been conducted in the light of the food intake and the amount of consumption of carbohydrates of feel-good items. However, this present study tries to answer which type of people tend to be more susceptible to emotional eating indulgence on a more frequent basis in their lives.

The Type A behaviour pattern has been described by Friedman and Rosenman (1974) as an incessant struggle by an individual to accomplish as much as possible in the least amount of time, even against the opposing forces of other things or other people. Would they do whatever in their power to overcome an obstacle or move on from a success to prepare for another one?

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Type B persons demonstrate the opposite behaviours of being relaxed, rarely harassed, and pursuing leisure activities (Friedman & Rosenman, 1974). Would they enjoy the moment and prolong it by ornamentally eating like eating sweets when you are already happy on hearing a good news, in order to celebrate?

A significant area of the Personality for Type A and Type B research but mostly identified with work related behaviours than eating patterns, be it emotional eating, external eating or regressive eating. In fact, there are many studies consisting Indian population in regard to emotional eating. There has been evidence that emotional dispositions are part of personality (Pervin, 1975).

Hence, the present study aims to examine whether and which of the types of personality, with respect to Type A and Type B behaviour patterns influence emotional eating in adult males and females via a comparative study.

REVIEW OF LITERATURE

Pfeiler, M. T., & Egloff, B. (2020) conducted a study on **personality and eating habits revisited; on the associations between the Big Five personality traits, food choices, and Body Mass Index (BMI)** in a representative Australian sample. Participants were 13,892 adults from the Household, Income and Labour Dynamics in Australia survey. An analysis of 14 food items yielded three salient eating habits: (i) consuming carbohydrate-based food (e.g., bread, pasta, snacks), (ii) meat (e.g., red meat, poultry), and (iii) plant-based food and fish (e.g., vegetables, fruits, legumes, fish). The results showed that eating plant-based food and fish was positively associated with openness, conscientiousness, and emotional stability in hierarchical regression analyses; while consuming *meat* was negatively associated with openness and emotional stability, and positively associated with extraversion. Consuming carbohydrate-based food was negatively associated with conscientiousness, extraversion, and emotional stability. Hence, it was proven that there is a link between personality and individual eating behaviour.

Ilyas M, Naseem S, & Bibi A. (2019) conducted a study on the **Role of stress-prone Type A personality and anxiety among heart patients**. The Stress Prone Type A Personality Questionnaire (SPTAPQ) and Manifest Anxiety Scale (MAS) was used on a sample size of 100 where 50 heart patients and 50 normal people were divided equally into 25 males and 25 females between 20 to 70 years age range. Quantitative research methodology was used and data was collected from different hospitals and settings. The results were computed through SPSS (version 23) showing that Stress prone type A personality and anxiety are significantly related with one another. There was seen a role of stress and anxiety in the development of heart diseases. There was a significant difference related to the amount of stress between males and females and heart patients have a significantly lower anxiety than normal people.

Sariyska R., Y., Markett, S., Lachmann, B., and Montag, C., (2019) conducted a search to answer the question, **what does our personality say about our dietary choices? Insights on the associations between dietary habits, primary emotional systems and the Dark Triad of personality**. The aim of the research project was to (a) examine the relationship between individual differences in biologically rooted primary emotional systems arising from phylogenetically old brain areas and dietary habits including being a vegan/vegetarian or omnivore; additionally, the link between the Dark Triad personality traits and dietary habits, (b) replicate the associations between the Dark Triad traits and dietary habits in a new sample. In total 1140 (Study 1 for 'a') and 444 (Study 2 for 'b') participants took part in

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the research project. The Affective Neuroscience Personality Scales (ANPS), Eating Behaviour Questionnaire (EBQ) and Short Dark Triad Scale (SD3) were administered. Results of study 1 for (a) demonstrated higher care, sadness and spirituality scores, and lower play scores in vegans/vegetarians than in omnivores. However, after the sex of the participants was included in the model, the effect on Care got weaker. Omnivores scored higher on Machiavellianism, however, this association disappeared when sex was added to the model. In study 2 for (b), higher scores in Machiavellianism, narcissism and psychopathy were reported for the group of omnivores compared to vegans/vegetarians, however those effects got weaker or disappeared after the sex of participants was added to the model. This research added to the literature by investigating the ANPS model and the Dark Triad of personality in the context of eating style for the first time.

Aoun, C., Nassar, L., Soumi, S., El Osta, N., Papazian, T., & Rabbaa Khabbaz, L. (2019) tested **The Cognitive, Behavioural, and Emotional Aspects of Eating Habits** and Association with Impulsivity, Chronotype, Anxiety, and Depression in a Cross-Sectional Study. The questionnaires used were Eating Habits Assessed with the Three-Factor Eating Questionnaire Revised 18-Item Version (TFEQ-R 18), Impulsivity with the Impulsive Behavior Scale (UPPS-P Short Version), Anxiety and Depression with the Hospital Anxiety and Depression Scale (HADS), and Chronotype with the Morningness-Eveningness Questionnaire (MEQ). Caffeine intake was assessed with two questions: number of cups of coffee/day and number of units of any beverage containing caffeine (mainly soft drinks containing caffeine). The crowding index (number of people living in the same house divided by the number of rooms in the house excluding the kitchen and bathrooms) was calculated. All participants were university students (young adults). Pearson and Spearman correlation, non-parametric Mann-Whitney test and analysis of variance (ANOVA) were conducted using SPSS. Results showed significant correlations between BMI, eating habits, impulsivity and anxiety or depression. The conclusion also implicated a gender difference in the emotional eating (EE) component (higher in females). This finding confirms previously published results showing that females turn out to be more emotional eaters than males (Hantsoo and Epperson, 2017).

Dhivyadharshini, J.; Priya, A. Jothi & Gayathridevi, R. (2019) examined the stress-related eating behaviour in adults with obesity by exploring whether stress causes the abnormal eating behavioural habit among the young obese adults or not. Compulsive Eating Scale and the Stressful Situations Questionnaire were given to 43 males and 101 females participants of 18-55 years of age. Percentage analysis of calculated and the results showed that about 66% of the population has abnormal eating behaviour only due to stress in the population seen in Chennai. It was also seen that stress-related eating behaviour is more prevalent in females than males.

Wouters, S., Jacobs, N., Duif, M., Lechner, L., & Thewissen, V. (2018) conducted a study on **negative affective stress reactivity: the dampening effect of snacking**. The study had set out to elucidate the relationship between daily hassles, snacking, and negative affect (NA). The aim of the present study was to examine whether or not moment-to-moment energy intake from snacks moderates the association between momentary stress and negative affect (NA). 269 Adults, aged 20-50, participated in this study where stress, negative affect (NA), and snack intake were assessed for 7 days, each 10 times consecutively, online. Multi-level regression analyses were performed using SPSS and the results revealed a dampening effect of snacking on negative affective stress reactivity. The

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amount of carbohydrates has an enhancing effect on negative affective stress reactivity. This study hence confirmed and proved that there is indeed a significant positive association between momentary stress and momentary negative affect (NA).

Caroleo, M., et al. (2018) did a real-world study on the genetic, cognitive and psychopathological differences of obese patients clustered according to eating behaviours. The aim of this study was to classify obese patients according to their eating behaviours and to compare these clusters in regard to psychopathology, personality traits, neurocognitive patterns and genetic profiles. A total of 201 obese outpatients seeking weight reduction treatment underwent a dietetic visit, psychological and psychiatric assessment and genotyping for SCL6A2 polymorphisms. Eating behaviours were clustered through two-step cluster analysis, and these clusters were subsequently compared. Results showed that cluster 1 contained patients with predominantly prandial hyperphagia, social eating, an increased frequency of the long allele of the 5-HTTLPR and low scores in all tests; and cluster 2 included patients with more emotionally related eating behaviours (emotional eating, grazing, binge eating, night eating, post-dinner eating, craving for carbohydrates), dysfunctional personality traits, neurocognitive impairment, affective disorders and increased frequencies of the short (S) allele and the S/S genotype. This concluded that aside from binge eating, dysfunctional eating behaviours were useful symptoms to identify two different phenotypes of obese patients from a comprehensive set of parameters (genetic, clinical, personality and neuropsychology) in this sample. Grazing and emotional eating were the most important predictors for classifying obese patients, followed by binge eating. This clustering, hence, proved the idea that ‘binging’ is the predominant altered eating behaviour, and could help physicians other than psychiatrists to identify whether an obese patient has an eating disorder.

Shahrokhisahneh, B., & Begum, K (2018) did a descriptive study in Urban Population in respect to Associative Eating Behaviours and Eating Disorders among Adult Men and Women with Varying Body Mass Index. Men (107) and women (193), from Mysuru, India, aged 27 to 47 years having BMI varying between 18.5 and 40 were administered using Binge Eating Disorder (BED), Night Eating Syndrome (NES), Emotional eating and restrained eating, uncontrolled eating (Three Factor Eating Questionnaire (TEFQ-18)) and Adult picky eating questionnaire. The height and weight was also taken down. Chi square test using SPSS was done. Binge eating was found among 9 to 10% of overweight and obese male and female participants. Emotional eating and food cravings was most prevalent among overweight and obese men and women. Higher percentages of men (16%) and women (31.1%) with normal weights claimed to exercise controlled eating while 8.4 and 3.1% overweight men and women claimed to have uncontrolled eating disorder. The results revealed that emotional eating and uncontrolled eating disorders bear statistically significant association to higher body weight status among both men and women while food craving among female participants exhibited significant association.

Sproesser, G., Ruby, M. B., Arbit, N., Rozin, P., Schupp, H. T., & Renner, B. (2017) conducted an **Eating Motivation Survey in the USA, India and Germany**. The study investigated the consistency and measurement invariance of the fifteen basic motives included in TEMS in countries with greatly differing eating environments. The fifteen-factor structure of TEMS (brief version: forty-six items) was tested in confirmatory factor analyses via an online survey on 749 participants on varying ethnicities. Despite the complexity of the model, fit indices indicated a reasonable model fit (for the total sample: $\chi^2 /df=4.03$; standardized root-mean-squared residual (SRMR)=0.063; root-mean-square error of

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approximation (RMSEA)= 0.064 (95 % CI 0.062, 0.066)). The fifteen-factor structure of TEMS was, in general, confirmed across countries despite marked differences in eating environments.

Etkin, R. G., Bowker, J. C., & Scalco, M. D. (2016) checked the associations between subtypes of **social withdrawal and emotional eating during emerging adulthood**. Participants were 643 undergraduate students on whom Child Social Preference Scale (Bowker & Raja, 2011), Beck Depression Inventory-II (Beck, Steer, & Brown, 1996), UCLA Loneliness Scale (Russell, Peplau, & Ferguson, 1978), Social Interaction and Anxiety Scale (Mattick & Clarke, 1998) and Emotional Eating subscale (13-items) of the Dutch Eating Behaviour Questionnaire (Van Strien, Frijters, Bergers, & Defares, 1986) were administered. The BMI was taken down as well. An exploratory factor analysis was conducted. It was found from the model devised that the model parameters like anxiety and emotional eating did not significantly differ by gender. The results suggested that withdrawing from peers during emerging adulthood, due to fear or preferences for solitude, may have significant consequences for both physical health and psychological difficulties.

Gonzalez, C. & Santos-merx, Lourdes. (2015) studied the **emotional eating and food cravings by a gender comparison of university students**. The main purpose of this study was to investigate gender differences in emotional eating and its relationship with food cravings. 139 University students with mean age of 20.53, filled in the Emotional Eating Scale (EES), the British Food Craving Inventory (FCI) and reported age, height, weight and if on a diet and its purpose. Gender differences for BMI and diet purpose were assessed using chi-square; for EES and FCI independent t-tests were applied. Pearson correlation was done using SPSS. The results showed that more men than women were classed as overweight. Most men and women were not on a diet. Nevertheless, a significant proportion of men were on a weight gain and women on a weight loss diets. There was no significant gender difference for EES total and its subscales and FCI total scores. However, and significantly, women reported cravings for 'fast' and 'high fat' foods subscales than men. Similar findings were found among low EES scorers. For high EES scorers only cravings for 'high fat foods' were observed. Emotional eating and cravings were not significantly related except for the anger-frustration EES subscale and complex carbohydrates but only among female low EES scorers. Hence and for this sample, food cravings do not appear to be related to emotional eating.

Keller, C., & Siegrist, M. (2015) published a paper answering the question, **Does personality influence eating styles and food choices?** Direct and indirect effects were examined on 951 individuals, above 18 years of age with their birthdays coming up. The mean age of these persons was 55 years. The German versions of NEO Five-Factor Inventory (NEO-FFI) by Costa and McCrae (1992), Dutch Eating Behaviour Questionnaire (DEBQ) (Van Strien et al., 1986), as well as a self-constructed Food Frequency Questionnaire (FFQ) was handed out as questionnaires for the participants to fill. Mean values across the items on the scales were calculated and used to manifest variables in a path model. Covariance matrices were used as input to estimate parameters using SPSS. The results showed that Pearson correlations suggest that personality factors are significantly correlated with eating styles and people's food choices. There was also a gender difference where women had higher neuroticism, openness to experience, emotional and restrained eating and consumed more fruits, vegetables and salad, less meat and fewer sugar-sweetened drinks, than men. One of the implications of the study was that eating styles like Emotional Eating might be easier to find intervention strategy, say, increasing

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physical activity could prevent unbalanced dietary patterns that result in weight gain among emotional eaters coping with distress.

Asarian, L., & Geary, N. (2013) did a research on the **sex differences in the physiology of eating**. The review contained a variety of physiological sex differences in eating in rats, mice and anthropoid primates, including phenomenology, peripheral and central neuroendocrine mechanisms, and pathophysiology. It was found that physiological sex differences in eating habits alone was not sufficient to cause disordered eating. There was also an implication that the males resort less to emotional eating to overcome their negative feelings, than women. They would rather resort to other ways of coping such as gambling, alcohol drinking or internet addiction.

Yau, Y. H., & Potenza, M. N. (2013) published a paper on **stress and eating behaviours**. Stress was seen as an important factor in the development of addiction and in addiction relapse, and may contribute to an increased risk for obesity and other metabolic diseases. Uncontrollable stress changes eating patterns and the salience and consumption of hyperpalatable foods; over time, this could lead to changes in allostatic load and trigger neurobiological adaptations that promote increasingly compulsively behaviour. It was found that chronic stress may affect the mesolimbic dopaminergic system and other brain regions involved in stress and/or motivation circuits. Together, these may synergistically potentiate reward sensitivity, food preference, and the wanting and seeking of hyperpalatable foods, as well as induce metabolic changes that promote weight and body fat mass. However, individual differences in susceptibility to obesity and types of stressors may also have an effect.

Podar, I. (2010) studied **eating disorders, personality, and cultural differences**. The first study (Study I) was to translate Eating Disorder Inventory-2 (EDI-2) (Garner, 1991) into Estonian language, and adapt and validate the inventory. The second study (Study II) studied the parallel the influence of personality dispositions and the activity of the serotonin system on the eating behaviour and attitudes. The third study (Study III) was a systematic analysis of data collected with the Eating Disorder Inventory (EDI) and Eating Disorder Inventory-2 (EDI-2) from around the world was carried out. The total number of respondents was 43,722, from 25 different countries, in 16 languages. From the test, it was found that the personality dispositions revealed a larger relevancy in etiology of eating disorders than emotional experience. Of the five personality dimensions, Neuroticism made the largest contribution to it. Also, for both clinical versus non-clinical, and Western versus non-Western results were identical, meaning generalizability across languages and cultures.

Wallis, D. J., & Hetherington, M. M. (2009) studied **emotions and eating with respect to self-reported and experimentally induced changes in food intake under stress**. The first examined self-reported changes in intake of snack foods, whilst the second investigated stress-induced overconsumption in a laboratory setting comparing high (HF) and low-fat (LF) snacks. 89 females completed the Dutch Eating Behaviour Questionnaire (DEBQ) by Van Strien, T., et al (1986) and a self-report measure designed to evaluate changes in eating in response to stress. Increased intake of HF snacks was associated with high emotional eating but not with restraint. A laboratory-based experiment compared intake of HF and LF snacks after ego-threatening and neutral Stroop colour-naming tasks. Intake was suppressed by 31.8% in restrained compared to unrestrained eaters across tasks. Restrained eaters consumed significantly less after ego-threat than after the neutral manipulation, but this was associated only with intake of the LF snack. Restrained eaters' intake of dried fruit was

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suppressed by 33.2% after ego-threat relative to the neutral task, despite a significant increase in hunger for this group following ego-threat. The results suggested that the type and variety of foods offered influences the link between stress and eating in laboratory settings.

Elfhag, K., & Morey, L. C. (2008). **Personality traits and eating behaviour in the obese.** Poor self-control in emotional and external eating but personality assets in restrained eating. The study group consisted of 442 patients (e 282 women and 160 men) with a mean BMI of 40.5kgs , with an age range of 17–70 years. NEO Personality Inventory (NEO PI-R; Costa & McCrae, 1992) and Dutch Eating Behaviour Questionnaire (DEBQ; van Strien, Frijters, Bergers, & Defares, 1986) were administered and regression analyses was done on SPSS. The results showed Neuroticism personality trait was significantly linked to emotional eating. the most important Neuroticism facet in relation to emotional eating was impulsiveness. This means a low mood and unhappiness are not solely responsible for comfort eating, and perhaps even not sufficient, but that it also takes disinhibition in behaviours for emotional eating to manifest. Impulsiveness refers to the inability to control and resist desires, cravings and urges, and a low frustration tolerance (Piedmont, 1998). Lower Conscientiousness with in particular a low self-discipline implying being easily discouraged in carrying out tasks was also prominent in emotional eating. For external eating a pattern of relationships that was similar to that for emotional eating was seen, although these relationships were mainly weaker.

Bardone-Cone, A. M., et al. (2008) had revisited the **differences in individuals with bulimia nervosa with and without a history of anorexia nervosa by evaluating their eating pathology, personality, and maltreatment.** 138 adult women (18 years and above) with symptoms of an eating disorder according to the DSM IV TR criteria were considered for this test. Telephonic interviews were conducted based on the eating disorder module of the Structured Clinical Interview for DSM-IV, Patient Edition30 (SCID-P) and Eating Disorder Examination31 (EDE) established the binge eating criteria. Eating Disorders Evaluation Questionnaire EDEQ-Version 4, Barratt Impulsivity Scale (BIS) and Childhood Trauma Questionnaire (CTQ) were conducted on them as well. T-test, Chi-square test, MANOVA was calculated using SPSS. The results showed women with Bulimia Nervosa and history of Anorexia Nervosa were maltreated more than the ones with no history of it. There were no significant differences between groups for the perfectionism dimensions of maladaptive and adaptive perfectionism. The personality findings suggest that, from both a unidimensional and a multidimensional perspective, perfectionism and impulsivity do not effect the women's pre-disposition of eating disorders.

Lilenfeld, L. R. R., Wonderlich, S., Riso, L. P., Crosby, R., & Mitchell, J. (2006) did a methodological and empirical **review on Eating disorders and personality.** The reviews implicated negative emotionality, perfectionism, drive for thinness, poor interoceptive awareness, ineffectiveness, and obsessive-compulsive personality traits as likely pre-dispositional factors, which may increase the risk for developing an eating disorder. The personality traits of stress reactivity, alienation, and absorption (i.e., emotional responsivity to the environment) have been implicated as consequent to and/or exacerbated by the eating disorder (Lilenfeld et al., 2000). The research strongly suggested that perfectionism and other obsessive-compulsive personality traits may indeed be pre-disposing factors for eating disorders. It was also found in few studies that personality disorders, mostly in Cluster B,

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particularly borderline personality disorder, is associated with poorer treatment outcome among eating disorder patients.

Eggert, J., Levendosky, A., & Klump, K. (2007) did a research on **relationships among attachment styles, personality characteristics, and disordered eating**. Participants included 85 female twins and triplets, between the ages of 18 and 30 years, who had Minnesota Eating Behaviour Survey (MEBS), Adult Attachment Scale (AAS), and NEO Personality Inventory—Revised (NEO-PI-R) administered on them. Pearson correlation and HLM analyses were calculated. Results showed that higher scores on the neuroticism scale predicted more disordered eating and explained the relationship between insecure-resistant attachment and disordered eating.

Mauss, I. B., Levenson, R. W., McCarter, L., Wilhelm, F. H., & Gross, J. J. (2005) conducted a research on the **Coherence Among Emotion Experience, Behaviour, and Physiology**. The authors (a) examined the within-individual associations among experiential, facial behavioural, and peripheral physiological responses during emotional responding and (b) assessed whether emotion intensity moderates these associations. This was done on 59 female students. Experiential, behavioural, and physiological responses were measured second-by-second during a film that induced amusement and sadness. The results indicated that experience and behaviour were highly associated but that physiological responses were only modestly associated with experience and behaviour. Intensity of amusement experience was associated with greater coherence between behaviour and physiological responding; intensity of sadness experience was not. These findings provide new evidence that emotional conditions, experience, facial behaviour, and peripheral physiology are significantly associated.

O'Connor, D. B., & O'Connor, R. C. (2004) examined the **perceived changes in food intake in response to stress: the role of conscientiousness, a part of the Big Five personality construct**. 131 female participants with 19–48 years of age range, filled the Dutch Eating Behavior Questionnaire (DEBQ; van Strien et al., 1986a; Wardle, 1987), Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991, 1996), International Personality Item Pool (IPIP; Goldberg, 1999), Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983), and General Health Questionnaire (GHQ; Goldberg & Williams, 1988). Descriptive statistics and Paired samples t-tests with Bonferroni corrections were calculated. ANOVA was also done. It was hence found, from the results, that conscientiousness significantly is involved with existing individual differences to predict changes in stress-related, self-reported eating.

Marañón, I., Echeburúa, E., & Grijalvo, J. (2004) directed a **pilot study using the IPDE (International Personality Disorders Examination) to check the prevalence of personality disorders in patients with eating disorders**. The study investigated the personality profiles of 66 outpatients with eating disorders. Statistical analyses by SPSS were carried out using non-parametric methods such as the Kruskal-Wallis H test and Mann-Whitney U. Results showed that more than half (51.5%) of the overall sample met criteria for at least one personality disorder. Purging anorexia nervosa patients were the most affected. The most common personality disorders were obsessive-compulsive, avoidant, dependent, borderline and not otherwise specified.

Vervaet, M., Audenaert, K., & van Heeringen, C. (2003) studied the **cognitive and behavioural characteristics are associated with personality dimensions in patients with**

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eating disorders. The study was between the personality-related characteristics and behavioural and cognitive characteristics and how they may contribute to the causes and course of eating disorders. Cloninger's Temperament and Character Inventory, Eating Disorders Inventory and the Dutch Eating Behaviour Questionnaire were administered on 272 eating disordered patients. The results showed that in bulimics, positive correlations were found between novelty seeking on one hand, and, external and emotional eating and bulimia on the other. It was mainly seen that the scores on personality dimensions correlated significantly with the score rating cognitive and behavioural characteristics.

Van Strien, T. (2000) evaluated **ice-cream consumption, tendency toward overeating, and personality of 200 female university students**, most of them students with mean body mass index 21.1kg/m². The measures of relevance to the present study are: (1) ice-cream consumption (its log transformation), (2) the scales for emotional and external eating of the DEBQ; (3) the bulimia scale of the EDI-R1 ; and (4) the EDI-R scales: Ineffectiveness (In), Maturity Fears (Mf), Perfectionism (Pf), Interpersonal Distrust (Ip), Interoceptive Awareness (Ia), Asceticism (As), Impulse Regulation (Ir), and Social Insecurity (Si). The Pearson correlation was calculated and examined in more detail in several hierarchical step-up multiple regression analyses. It was found that emotional eating was the most important variable for ice-cream consumption, however this wasn't the case amongst bulimic patients. The associations with lack of interoceptive awareness and social insecurity are in line with the psychosomatic theory of overeating (Bruch, 1973). According to Bruch, the confusion and apprehension in recognizing and accurately responding to emotional states and the uncertainty in the identification of certain visceral sensations related to hunger and satiety, tapped by the scale for Interoceptive awareness, may result in a pattern of responding to negative mood by food intake: emotional eating.

Kirkcaldy, B., Cooper, C., & Furnham, A. (1998) published a research on **the relationship between Type A personality trait, internality–externality, emotional distress and perceived health** of 144 European managers. Occupational Stress Indicator scales by Cooper et al (1988) and explored the impact of Personality Factors (Type A and locus of control) on subjectively perceived job stress, satisfaction at work and physical and psychological health. It was found from the test that there was no significant relationship reported between personality, work satisfaction and general health. In fact, Type A personality individuals (internality) expressed the most job satisfaction with their work situation and better physical and psychological health. Personality Type A and B (externality) displayed higher mental illness scores whereas Type B externals only reported significantly more physical symptoms and not the rest. This concluded that Type B internals appear to report the best health than Type A in dealing with emotional distress.

Leon, G. R., Fulkerson, J. A., Perry, C. L., & Early-Zald, M. B. (1995) conducted a **prospective analysis of personality and behavioural vulnerabilities and gender influences in the later development of disordered eating**. This was two-three-year longitudinal study which consisted a sample size of 852 girls and 815 boys who began the study in Grades VII to X. The Eating Disorders Checklist, Eating Disorders Inventory (EDI; Garner, Olmsted, & Polivy, 1983), The Pubertal Development Scale (PDS; Petersen, Crockett, Richards, & Boxer, 1988), short form of Multidimensional Personality Questionnaire (MPQ; Tellegen, 1982) and Health Behavior Survey were administered on the sample. Weight and height were also taken down. Gender difference evaluations in the risk score components indicated that a significantly greater

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proportion of girls than boys endorsed behaviours that were similar to the eating disorder diagnostic criteria in the DSM IV TR.

Lee, C., Ashford, S., & Jamieson, L. (1993) studied **The Effects of Type A Behaviour Dimensions and Optimism on Coping Strategy, Health, and Performance**. 192 undergraduate students were the participants for the two-part data collection, one beginning and one at the end of the academic year, when examination situations are generally stressful to students. Achievement striving (AS) and impatience/irritability (II) were assessed using a revised 12-item Jenkins Activity Survey (JAS) developed and validated by Spence et al. (1987, 1989). Additionally, the 4-item anger/hostility scale was taken from Siegel (1986) and Optimism was assessed using an 8-item Life Orientation Test (LOT) scale developed and validated by Scheier and Carver (1985). Hierarchical moderated regression analysis was done. Results implicated that irritability represents a proxy for anger/ hostility and if anger/hostility is controlled, then the positive relationship between irritability and health risk may disappear.

Malatesta, C. Z., & Wilson, A. (1988) did a discrete emotion, functionalist analysis on the **emotion cognition interaction in personality development**. The study examined the role of (discrete) emotion traits in personality and proposed a model of emotion trait ontogenesis. The aim was to (a) organize the evidence in support of emotion traits as personality constructs, (b) specify how different kinds of emotional organizations differentially impact on broad domains of human behaviour in specific ways, and (c) trace how such trait organizations are acquired developmentally. Many assumptions were made and studies on emotional perception, production was gathered. Anger, Sadness and Fear became the constructs of emotions in respect to the personality development. Five mechanisms were proposed. It was found that the individual differences in affective organization, acquired during the course of development, result in subjective biases towards the expression (or withholding of expression) of particular affects. The patterns of emotional behaviour seen in certain contexts, particularly under conditions of stress, only distinguishes one from another.

Strien T. V, et al (1985) studied **eating behaviour, personality traits and body mass** in women. The sample consisted of 80 women, of both normal-weight and overweight. Dutch Eating Behaviour Questionnaire (DEBQ); the Emotional Eating scale (EES); the External Eating/Perceived Hunger scale, and the Restrained Eating scale were administered. The Pearson correlation was calculated. In relation to emotional eating, the results clarified that the higher a woman scored on emotional eating, the more she reported feeling anxious and acting inadequately (NPV-IN), lacking in self-sufficiency (NPV-ZE), lacking in self-esteem (NPV-ZW), being sentimental and emotionally unstable (GLTS-G), being worried (GLTS-0), lacking patience (GLTS-R), showing no signs of social desirability (SD), and having a high preference for sweet foods (ZOET). The latent obese subjects reported feeling more socially adequate (NPV-SI), having less social anxiety (SA), and being more outgoing (GLTS-E) than obese subjects. Furthermore, it was reported that being more dominant (NPV-DO) and having a greater need for social ascendance (AS) was witnessed.

METHODOLOGY

Aim

The main of the present research is to conduct a comparative study on Emotional Eating & Personality Type A and Type B Behavioural Patterns in male and female adults.

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Objectives

- To determine the significant relationship between Type A and the Emotional Eating dimensions – Anger, Anxiety, Depression and Positive Emotions.
- To determine the significant relationship between Type B and the Emotional Eating dimensions – Anger, Anxiety, Depression and Positive Emotions.
- To inspect the significant difference in emotional eating between the adult males and females.
- To evaluate and compare the males and females of the sample for Type A personality.
- To evaluate and compare the males and females of the sample for Type B personality.
- To find whether Type A and Type B differ with respect to levels of emotional eating.

Hypotheses

- There is no significant relationship between Type A and Emotional Eating dimension – Anger.
- There is no significant relationship between Type A and Emotional Eating dimension – Anxiety.
- There is no significant relationship between Type A and Emotional Eating dimension – Depression.
- There is no significant relationship between Type A and Emotional Eating dimension – Positive emotions.
- There is no significant relationship between Type B and Emotional Eating dimension – Anger.
- There is no significant relationship between Type B and Emotional Eating dimension – Anxiety.
- There is no significant relationship between Type B and Emotional Eating dimension – Depression.
- There is no significant relationship between Type B and Emotional Eating dimension – Positive emotions.
- There is no significant difference between males and female adults in Emotional Eating.
- There is no significant difference between males and female adults in Type A personality.
- There is no significant difference between males and female adults in Type B personality.
- There is no significant difference between Type A personality and Type B personality with respect to Emotional Eating dimensions.

Variables

1. The *independent variable* is (i) Personality type. Here, Type A and Type B behaviour patterns are the independent variables. (ii) Gender. Males, Females.
2. The *dependent variable* is Emotional Eating behaviour. Here, Anger, Anxiety, Depression and Positive emotions are dependent variables.

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Operational Definitions

Personality – as measured in terms of the five-point Likert scale, ABBPS (The A/B Behavioural Pattern Scale), measures 18+16 items of Form A and Form B in order to interpret an individual to possess either of the two constructs:

- a. Type A Personality – is characterised by Tenseness, Impatience, Restlessness, Achievement Orientation, Domineering, and being a Workaholic.
- b. Type B Personality – is characterised by being Complacent, Easy – Going, Non-assertive, Relaxed and Patient.

Emotional Eating – as measured in terms of the five-point Likert scale, EES (Emotional Eating Scale), 28 different dimensions/items are looked at, in terms of the likeliness or levels the individual has urge to eat, despite not being hungry. The emotions that may determine emotional eating are when on is: (i) Resentful, (ii) Discouraged, (iii) Shaky, (iv) Worn Out, (v) Inadequate, (vi) Excited, (vii) Rebellious, (viii) Blue, (ix) Jittery, (x) Sad, (xi) Uneasy, (xii) Irritated, (xiii) Jealous, (xiv) Worried, (xv) Frustrated, (xvi) Lonely, (xvii) Furious, (xviii) On Edge, (xix) Confused, (xx) Nervous, (xxi) Angry, (xxii) Guilty, (xxiii) Bored, (xxiv) Helpless, (xxv) Upset. (xxvi) Attentive, (xxvii) Love, and lastly, (xxviii) Content. These feeling may lead one to emotional eating. Geliebter and Aversa (2003) define emotional eating as food intake that is triggered by strong emotions, both negative and positive, rather than to our internal hunger cues.

Research Design

For the present study, the comparative and descriptive research method was adopted in the present investigation.

Population

The snowballing sampling technique was adopted in the selection of the sample to be studied. A total of 130 sample size - 65 males, 65 females were taken for assessments through the online portal. The subjects all fell under the age range of 18-28 years range. The individuals were all fluent in English and had better understanding of the language in which the questions were asked. They were from varying socio-economic backgrounds.

Sample Inclusion and Exclusion Criteria

- a. **Exclusion:** anyone falling above or below of the age bracket, anyone outside of Chennai, married/divorced.
- b. **Inclusion:** can read and write English, falling within age bracket mentioned, 18-28 years, unmarried, living with family, residing in Chennai.

Sample

From the 130 respondents, using convenience and quota sampling, only the individuals who fell under the clear construct on Type A and Type B personality types were taken into consideration for further testing of their emotional eating habits. For the second and final step 31 Type A and 32 Type B personality patterning individuals were taken, so the new sample size is N = 63 with 34 females and 29 males.

Tools Used

- 1) ABBPS (Type A/B Behavioural Pattern Scale) by Upinder Dhar and Manisha Jain, 2001 - ---33 items
- 2) EES (Emotional Eating Scale) by Arnow, Kenardy & Agras, 1995. ----28 items

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Type A/B Behavioural Pattern Scale (ABBPS): This scale was developed by Upinder Dhar and Manisha Jain. The scale is used to measure Type A/B behaviour pattern in Indian context. It is presented in the form of a 5-point scale-strongly agree, agree, uncertain, disagree and strongly disagree. The scale has two parts-Form A and Form B. Form A consists of seventeen (17) items and Form B consists of sixteen (16) items which is a total of thirty- three (33) items.

Form A is used to measure Type A and Form B to measure Type B behaviour patterns separately, because if a person scores high on Type A, it does not mean that he is not having any characteristics of Type B personality. There is a possibility that along with Type A characteristics he has some of the characteristics of Type B personality because most of the personalities have some of the characteristics of both the personality types. In other words, their personalities are mixture of Type A and Type B personalities. So, it is necessary to measure both the personality types separately, so that it could be determined that how much of both the personality types a person is having.

One may be oriented more towards a particular type, but may have some characteristics of other type too. As for the reliability of the 119 scale, the reliability coefficient of Form A has been found to be .54 and coincidentally, for Form B also it has been found to be .54. The scale has high content validity, besides face validity. The validity for both the forms which has been separately measured has been found to be .73 (Dhar & Jain, 2001). Regarding the administration of the scale, the scale is self-administering. It can be administered in groups or individually. As there is no time limit for completing the scale, most respondents, however, take about 10 minutes to complete both the forms. The respondents are required to answer all the questions and there are no right or wrong answer to the statements.

Scoring is done manually, hence there is no scoring key. Each statement is scored 5 for strongly agree, 4 for agree, 3 for uncertain, 2 for disagree and 1 for strongly disagree. Sum of the scores of Form A and Form B yields Type A score and Type B score respectively. For this scale, norms for interpretation of raw scores is presented below: Individuals with very high scores on Form A may be considered as Type A personalities and individuals having very high scores on Form B may be considered as Type B personalities. Table 3.2(a) presents norms for interpretation of raw scores.

Norms for interpretation of raw scores

	Form A	Form B
Mean (M)	53.05	51.97
Standard Deviation	6.70	6.22
Normal range	46 – 60	46 – 58
High	61 & above	59 & above
Low	45 & below	45 & below

Source: Dhar & Jain, 2001, p. 19.

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Interpretation of the Type A-Type B scores is done in the following way: (Dhar & Jain, 2001, pp. 21- 22)

- a. An individual having Type A and Type B scores within the normal ranges does not demonstrate distinct tendency for either of the types. He may sometimes behave typically like a Type A person, whereas behave like a Type B person on other occasions.
- b. An individual having Type A score within normal range and Type B score below normal range is a clear Type A person.
- c. An individual having Type B score within normal range and Type A score below normal range is a clear Type B person.
- d. An individual having either Type A or Type B score above normal range and other score within normal range can be considered Type A or Type B on the basis of higher scores.
- e. An individual having Type A and Type B scores either below normal range or above normal range does not demonstrate distinct tendency for either of the types. Such an individual is likely to behave typically like a Type A or Type B on different occasions.
- f. An individual having either Type A or Type B score above normal range and other score below normal range can be considered Type A or Type B on the basis of higher score.

In this study, based on the norms for interpretation of raw scores, the students were grouped under Type A, Type B and Type AB personality.

The Emotional Eating Scale (EES) developed by Arnow, Kenardy, & Agras in 1995, is a 25 item scale (+3 new items) with three factors: anger/frustration, anxiety, and depression. Participants indicate on a 5-point Likert scale ranging from a 0 “no desire to eat” to a 4 “an overwhelming urge to eat”, to what extent each emotional descriptor (e.g., lonely, nervous, frustrated, etc...) leads them to experience an urge to eat. The 3 subscales were derived from research in which anger/frustration, anxiety, and depression accounted for 95% of the emotional states preceding binge eating episodes in obese binge eaters (Arnow et al., 1995). The EES demonstrated good reliability and validity (Arnow et al., 1995) and coefficient alphas for this study were 0.89 and 0.85 for the anger and anxiety subscales. Three additional positive items were added to the EES solely for exploratory purposes since positive emotions have been largely neglected: Attentive, in love, and content. No cut-offs exist for classifying emotional eating.

Anger/frustration Dimension - 11 items

Discouraged, guilty, irritated, angry, inadequate, furious, helpless, resentful, frustrated, jealous, rebellious

Anxiety Dimension - 9 items

Jittery, on edge, shaky, nervous, excited, uneasy, worried, upset, confused

Depression Dimension - 5 items

Lonely, bored, sad, blue, worn out

Positive Dimension - 3 items

Love, attentive, content

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Scores range from 0 to 44 on EES Frustration,

1. 0 to 36 on EES Anxiety,
2. 0 to 20 on EES Depression,
3. 0 to 100 on EES Total, and
4. 0 to 12 for the exploratory subscale of EES Positive.

The EES Total does not include the exploratory subscale of EES Positive.

Procedure of Data Collection

Data for this study were obtained by inviting individuals to participate via Google Forms© to fill the online questionnaires that were distributed through social media platforms such as WhatsApp©, Facebook©, and Twitter©. Along with informed consent, participants completed a demographics form.

Statistical Analyses of Data

The data were analysed with the help of statistical package for social sciences (SPSS) and computed accordingly on the Version 21. Pearson's Correlation, Independent Sample Mann U Whitney Test and Independent Sample t-test were used to analyse and interpret the data. Descriptive statistics was used.

Expected Outcome & Implications of the present research

One of the biggest scopes of the present research is that it may give weight to the reliability of the EES (Emotional Eating Scale) in Indian population context. Aside from that, it adds to the literature of Eating behaviour induced by emotions and indicate if and when personality has played a role in catapulting said behaviours, both among male and female adults in Chennai, India.

Ethical Considerations

All procedures performed in studies involving participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments. Informed consent was obtained from all individual participants included in the study prior to their participation along with purpose behind seeking their valuable time and data.

RESULTS

From the data conjured with respect to the specified objectives, it was found that,

1. Type A personality seems to have a significantly negative relationship (by 0.01 level) with Depression dimension of the emotional eating behaviour (Table 1).
2. There is no impact of Type B personality onto Emotional Eating behavioural patterns (Table 2).
3. There is a significant difference in adult males and females in respect to the Emotional Eating dimensions – Anxiety, Depression and Positive Emotions (Table 3).
4. Male adults seem to show higher emotional eating behavioural patterns in comparison to female adults (Table 4).
5. There is no significant difference in adult males and females in respect to Personality Type A as well as Type B (Table 5).
6. There is significant difference of personality Type A and Type B in emotional eating behavioural pattern, with respect to Positive Emotions (Table 6).

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7. Adults with Personality Type A seem to show higher emotional eating behavioural patterns in comparison to adults with Personality Type B (Table 7).

DISCUSSION

The present study aimed to examine whether and which of the types of personality, with respect to Type A and Type B behaviour patterns influence emotional eating in adult males and females. Upon computing the data via Pearson's Correlation, Independent Sample Mann Whitney U Test and Independent Sample t-test with the help of statistical package for social sciences (SPSS) Version 21, the results were obtained.

The hypotheses that stated that there was no significant relationship between Type A and Emotional Eating dimension – Anger, Anxiety and Positive Emotions holds true. However, the hypothesis that stated that there was no significant relationship between Type A and Emotional Eating dimension – Depression, was proven to be incorrect. There was a significantly negative relationship between Type A personality and Depression. It could be inferred as _____. This could be because, lower the level of depression may be in the person, he/she may indulge to emotionally eat. _____.

The hypotheses that stated that there was no significant relationship between Type B and Emotional Eating dimension – Anger, Depression, Anxiety and Positive Emotions holds true. This means that there is no impact of Personality Type B on the emotional eating habits of the individuals, or vice versa; and if there was a difference, it was very insignificant and negligible. This may be so as people of Type B personality don't necessarily have to indulge in eating behaviours to express or emote themselves as Type A may have to. _____.

The hypothesis that stated that there was no significant difference between males and female adults in Emotional Eating was proven incorrect as there was in fact a higher level of emotional eating behaviour adopted by males than females. By this comparison, one can decipher that _____. Additional findings show that irrespective of the annual income with the majority ranging between 1,00,00 INR to 10,00,000 INR, the males indulged in payments and expenditure themselves than females (Figure 1). This could in fact, give them the liberty than females to indulge in emotional eating, hence this construct may have played a role on the results obtained.

The hypotheses that stated that there was no significant difference between males and female adults in Type A and Type B personality hold true. This meant that the gender of an individual does not necessarily play a part in the development of their personality or the accumulation of its types. _____

The hypothesis which stated that there was no significant difference between Type A personality and Type B personality with respect to Emotional Eating dimensions was proven incorrect as it was seen from the sample population that the individuals of Type A personality tended to show higher emotional eating patterns than adults with Type B personality. It could be so, because _____.

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Tables and Figures

Table 1 The table shows the correlation coefficient between Personality Type A and Emotional Eating dimensions – Anger, Anxiety, Depression and Positive Emotions among 31 adults.

Variables		Emotional Eating			
		Anger	Anxiety	Depression	Positive Emotions
Type A Personality	Pearson Correlation	-.130	-.213	-.436*	.074
	Sig. (2-Tailed)	.486	.250	.014	.692
	N	31	31	31	31

* significant at 0.01 level

Table 2 The table shows the correlation coefficient between Personality Type B and Emotional Eating dimensions – Anger, Anxiety, Depression and Positive Emotions among 32 adults.

Variables		Emotional Eating			
		Anger	Anxiety	Depression	Positive Emotions
Type B Personality	Pearson Correlation	.131	.237	.178	.334
	Sig. (2-Tailed)	.475	.192	.330	.062
	N	32	32	32	32

Table 3 The table shows the emotional eating between the 63 adults – 34 females and 29 males, using independent sample t-test.

Emotional Eating	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Significance	t-value	df	Sig. (2-tailed)	Mean Difference	Standard Error Difference
Anger	.746	.391	-1.931	61	.058	-4.5456	2.3545
Anxiety	5.267	.025	-3.406	61	.001	-6.0203	1.7676
Depression	4.577	.036	-2.251	61	.028	-2.4655	1.0954
Positive Emotions	.753	.389	-3.252	61	.002	-2.3641	.7270

Table 4 The table shows the differences between the males and females in respect to their emotional eating behavioural pattern.

Emotional Eating	Gender	N	Mean	Standard Deviation	Standard Error Mean
Anger	Females	34	10.765	9.1488	1.5690
	Males	29	15.310	9.5060	1.7652
Anxiety	Females	34	8.118	6.0841	1.0434
	Males	29	14.138	7.9315	1.4728
Depression	Females	34	7.500	4.9620	.8510
	Males	29	9.966	3.4484	.6404
Positive Emotions	Females	34	4.912	3.0188	.5177
	Males	29	7.276	2.6978	.5010

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Table 5 The table shows the differences between the males and females in respect to their personality, Type A and Type B using Non -parametric test - two or more independent sample Mann Whitney U Test.

Variables	Gender Sig.
Personality Type A	.316
Personality Type B	.053

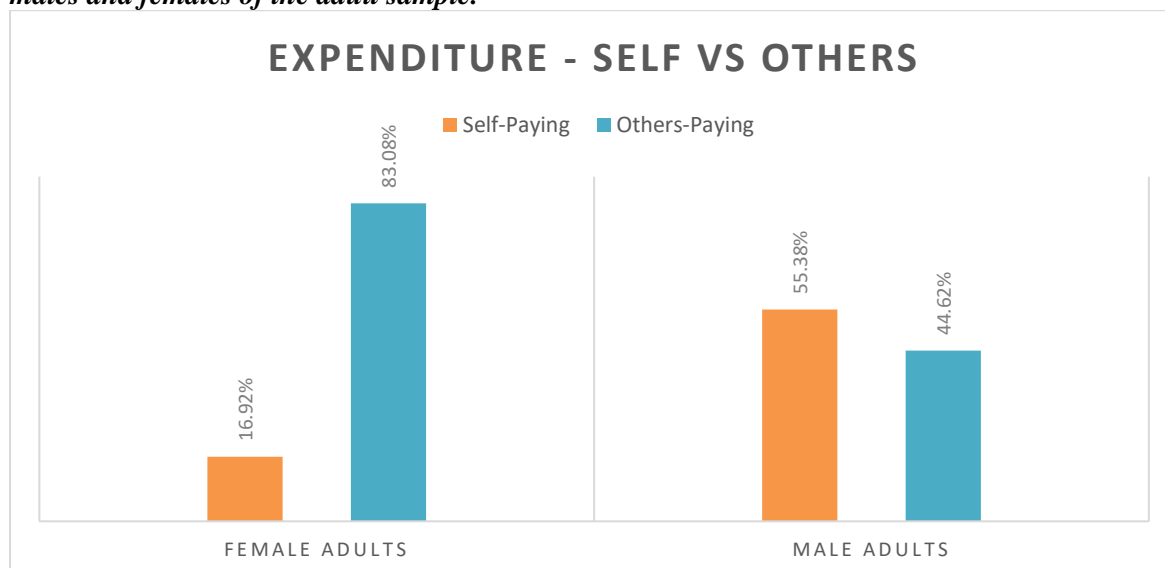
Table 6 The table shows the emotional eating between the 63 adults of 31 Type A personality and 32 Type B personality, using independent sample t-test.

Emotional Eating	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Significance	t- value	df	Sig. (2-tailed)	Mean Difference	Standard Error Difference
Anger	.440	.510	2.106	61	.039	4.9173	2.3346
Anxiety	.115	.736	1.635	61	.107	3.0766	1.8818
Depression	1.971	.165	.353	61	.725	.4012	1.1353
Positive Emotions	4.166	.046	.405	61	.687	.3175	.7840

Table 7 The table shows the computed differences between personality Type A and Type B in respect to their emotional eating behavioural pattern.

Emotional Eating	Personality	N	Mean	Standard Deviation	Standard Error Mean
Anger	Type A	31	15.355	8.5539	1.5363
	Type B	32	10.438	9.9025	1.7505
Anxiety	Type A	31	12.452	7.2564	1.3033
	Type B	32	9.375	7.6654	1.3551
Depression	Type A	31	8.839	4.1641	.7479
	Type B	32	8.438	4.8122	.8507
Positive Emotions	Type A	31	6.161	2.4913	.4474
	Type B	32	5.844	3.6110	.6383

Figure 1 The figure shows the expenditure done by others and self, in comparison between the males and females of the adult sample.



IMPLICATIONS AND SIGNIFICANCE

Despite multiple researches dating decades early to the ones from the current year, the present study was able to emphasise and bring to light how males may in fact, be more indulgent in eating, influenced by their emotions. This study also reasoned how the additional variables such as the foundation for their expenditure as a result plays a role in the behavioural pattern. It was also seen that Type A may in fact, have a small impact on the emotional eating behaviour of the individuals, especially amongst those who emote depression. This adds to the literature on how people with Type A personality may require external sources to meet their need for rewards and feedback, as well as being in control of their emotions by emotional eating.

Limitations

- Subjects targeted were limited to only Chennai, Tamil Nadu.
- A smaller sample was used.
- The test was conducted online, thus, not being on reach to many individuals who had no access.
- Misinterpretation of sentences may have occurred.

Suggestions for further research

- Other factoring variables could be explored in relation to the independent variables.
- The study could use a larger sample to get the perfect replication of the population being studied.
- More specific questions and a longer list of emotional eating behaviour inventory covering vast dimensions can be provided.
- The study can be organized with samples from different backgrounds, geographical areas, socio-economic status, education and religious beliefs.

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