International Journal of Physical and Social Science
Vol. 10 Issue 11, November 2020
ISSN: 2249-5894 Impact Factor: 6.644
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A

EATING BEHAVIOUR OF ADOLESCENTS: RECENT DRIFT

Dr. Milu Maria Anto*
(*HoD, Department of Psychology, Prajyoti Niketan College, Kerala)*
Swetha. P. S.**
(Student, BSc Psychology 2017-2020, Prajyoti Niketan College, Kerala)
Author Correspondence:
Swetha. P. S.**
Pulikkal (H),
P. O. Puzhakkal,
Muthuvara, Thrissur-680553
Kerala (India)
E-mail: swethasanthoshpulikkal@gmail.com

Abstract
The study aims to determine the impulsivity, decision-making and temperament among adolescents who use and are within the zone of online food delivery system and outside the zone. It also seeks to study the current eating behaviour among adolescents in relation to online food delivery system. A set of questionnaires which included personal data, interview schedule, Barratt Impulsivity Scale, Melbourne Decision-making Questionnaire and Rothbart Temperament Questionnaire were given to the samples which consisted of 50 online food consumers and 50 non-online food consumers of 15-20 years. The Student's t-test is employed as a statistical analysis for the present study. The results revealed that there is no significant difference in the impulsivity of online and non-online consumers. On the other hand, hypervigilance, activation control, affiliation and attention are affected in online consumers compared to non-online consumers. Moreover, there is an increase in the frustration and perceptual sensitivity of adolescents in urban area than rural area. The present study reveals the need for enhancing healthy eating behaviour among adolescents as it affects their decision-making capacity and temperament. The study also implies the negative dimensions of online food consumption that leads to maladaptive decision-making and temperament styles among adolescents.

Keywords:impulsivity, decision-making, temperament, eating behaviour, online consumers, adolescents.

1. Introduction

Eating behaviour plays a very important role in the growth and development of adolescents, during which the development of healthy eating habits is of prime importance. Once puberty arrives, rapid body growth leads to a dramatic rise in food intake. This increase in nutritional demand comes at a time when eating habits are the poorest. Research suggests that of all age

groups adolescents are more likely to skip breakfast, omit nutrient rich fruits and vegetables from their diets, consume empty calories and fast food (Stockman et al., 2005; Striegel-Moore et al., 2006; Videon & Manning, 2003). Fast food consumption is the major issue in adolescents' eating behaviour.

There are various sources through which adolescents can consume fast foods or other high calorie foods. A recent and popular source nowadays is the online food delivery apps. It provides adolescents with a platter of delicacies from various restaurants at their ease. The dramatic increase of online food delivery around us indicate the increase and shift of consumer behaviour to this new platform. This can result in various biological, social, and psychological problems gradually. Statistics shows that 93 per cent children eat packaged food more than once a week.

Adolescence is a period of change characterized by heightened emotionality, strong feelings of instability and ambivalence. It is traditionally, considered as a period of "stress and storms". As a result, most of the adolescents encounter a lot of problems like impulsivity, faulty decision-making, unhealthy eating behaviours and many more. The negative affectivity in their temperament add to the concern.

A major study conducted by Rekha and Hooda, D (2019) on "Effect of Eating Behaviour and BMI on Executive Functions among Adolescents" hold that adolescents having unhealthy eating behaviour possess poor executive functions. Executive functions help to learn new information, remember, and retrieve the information we have learned in the past, and use this information to solve problems of everyday life. Moreover, various studies also indicate the correlation between personality factors like temperament and impulsivity with eating behaviour.

Recent years have witnessed the shift from the normal food consumption behaviour to an advanced level of online food delivery system. Health experts have apprised that ordering food online is exposing children to enormous risks of obesity and is aggravating sedentary habits. Similarly, adolescents are also at a greater risk due to the unhealthy eating behaviour using online food delivery system.

Apart from the health risks like obesity, various psychological dysfunctions could also be promoted by uncontrolled consumption through online food delivery system. As it is observed that consumption through online food delivery system enhances craving for restaurant foods, its association with psychological aspects is visible. This makes it important to study on this area of psychology.

2. Research Methods

Studies conducted on impulsivity (Braet, Claus, Verbeken, & Van Vlierberghe, 2007; Waxman, 2009; Mobbs, Crépin, Thiéry, Golay, & Van der Linden, 2010; Booth, Spronk, Grol & Fox, 2017), temperament (Smith and Kendrick, 1992; Kanarek, 1997; Khanna, 2012) and decision-making (Symmank et al., 2016; Macchi, MacKew & Davis, 2017; Raskind, Woodruff & Cherry,

2017; Mckeown & Nelson, 2018) on the basis of eating behaviour reflect the theoretical and practical importance of the present study.

The study aimed in finding the impulsivity, decision-making and temperament among adolescents within and outside the online food delivery system. It broadly investigates about the current eating behaviour among adolescents in relation to online food delivery system. The study also explores the impulsivity, decision-making and temperament of adolescents in urban and rural areas. The sampling size is 100 of which 50 are online consumers and 50 are non-online consumers. The technique adopted is purposive sampling. This technique is used in the present study because the samples selected are very representative of the population. The area of sampling is the Thrissur district of the state of Kerala in India. The measures include a personal data sheet collecting information about age, gender, religion, monthly family income, area of residence, type of family, interview schedule on online and non-online eating behaviour, Barratt Impulsiveness Scale, Melbourne Decision-making Questionnaire and EATQ-R. The study included 35 male and 15 female online consumers of which 45 were from urban area and 5 were from rural area. On the other hand, the study also included 33 male and 17 female non-online consumers of which 16 were from urban area and 34 were from rural area. In the study, 44 of the online consumers were from nuclear family and 6 were from joint family. Likewise, 43 of the non-online consumers were from nuclear family and 7 from joint family. Incentives were not offered for the participants and all participants gave their informed consent.

All participants completed an online survey. After completing an informed consent, demographic details and interview schedule, participants completed measures on impulsivity, decision-making and temperament. Participants completed Barratt Impulsiveness Scale (BIS-11; Patton, Stanford &Barratt, 1995), Melbourne Decision Making Questionnaire (MDMQ; Mann, Burnett, Radford & Ford,1997) and the Early Adolescent Temperament Questionnaire-Revised (EATQ-R; Ellis & Rothbart, 2001). The Student's t-test using SPSS is employed as a statistical analysis for the present study. Here, the significant difference between the mean of online and non-online consumers are tested. Similarly, significant difference between urban and rural area are also tested.

Table 1. The summary of online and non-online consumers participated in the study.

CHARACTERISTICS		ONLINE CONSUMERS	NON-ONLINE CONSUMERS
GENDER	MALE	35	33
	FEMALE	15	17
AREA OF RESIDENCE	URBAN	45	16
	RURAL	5	34
TYPE OF FAMILY	NUCLEAR	44	43
	JOINT	6	7

International Journal of Physical and Social Science
Vol. 10 Issue 11, November 2020
ISSN: 2249-5894 Impact Factor: 6.644
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A

3. Result and Analysis

The total number of online consumers and non-online consumers included are 50 each. There is a total of 67 females and 33 males included in the study. The significant observations from the analyses are substantiated and illustrated below.

3.1 Result and Discussion of impulsivity, decision-making and temperament of adolescent online consumers.

Table 2. mean, SD, and t values of online and non-online consumers with respect to the variable impulsivity.

VARIABLES	ONLINE CONSUMERS (N= 50)		NON-ONLINE CONSUMERS (N=50)		t VALUE
	MEAN	SD	MEAN	SD	
Attentional Impulsivity	17.14	3.14	17.22	3.34	0.123
Motor Impulsivity	23.42	3.67	22.08	4.46	1.639
Non-planning Impulsivity	27.08	4.80	27.12	4.38	0.043

Table 2 shows the mean, SD and t values of online consumers and non-online consumers based on impulsivity, decision-making and temperament. There is significant difference in the hypervigilance, activation control, affiliation, and attention of online and non-online food consumers. The mean of online consumers in attentional impulsivity is 17.14 (SD=3.14) and the mean of non-online consumers in the same is 17.22 (SD=3.34). The t value of attentional impulsivity is 0.123. The mean of online consumers in motor impulsivity is 23.42 (SD=3.67) and the mean of non-online consumers is 22.08 (SD=4.46). The t value of motor impulsivity is 1.639. The mean of online consumers in non-planning impulsivity is 27.08 (SD=4.80) and mean of non-online consumers is 27.12 (SD=4.38). The t value of non-planning impulsivity is 0.043.

The analyses portrayed that impulsivity (attentional impulsivity, motor impulsivity and non-planning impulsivity) has no significant difference in online food consumers and non-online food consumers. This could be because impulsivity is a biological disposition. Moreover, the age range 15-20 is characterized of impulsivity irrespective of external conditions. The reason why various other decision making and temperamental dimensions did not show significant difference is that most of them are innate dispositions of individuals that are not usually influenced by external factors (e.g., buck-passing, procrastination, vigilance, depressive mood, fear, shyness,

International Journal of Physical and Social Science
Vol. 10 Issue 11, November 2020
ISSN: 2249-5894 Impact Factor: 6.644
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A

surgency etc). A contradictory study conducted by Nasser, Gluck & Geliebter (2004) suggests that greater motor impulsivity is associated with eating behaviour. They also found out that there exists a positive correlation between Binge Eating Disorder and Barratt Impulsivity Scale score. Jasinka et al., (2012) also demonstrated that impulsivity is positively correlated with several facets of unhealthy eating.

Table 3. mean, SD, and t values of online and non-online consumers with respect to the variable decision-making.

VARIABLES	ONLINE CONSUMERS (N= 50)		NON-ONLINE CONSUMERS (N=50)		t VALUE
	MEAN	SD	MEAN	SD	
Vigilance	7.92	2.67	7.14	2.60	1.477
Buck-passing	5.90	3.29	5.32	1.93	1.073
Procrastination	4.82	2.27	4.36	2.03	1.065
Hypervigilance	5.58	2.13	4.80	1.76	1.991*

$p \leq 0.05$*

The mean of online consumers in vigilance is 7.92(SD= 2.67) and mean of non-online consumers is 7.14 (SD= 2.60). The t value of vigilance is 1.477. The mean of online consumers in buck-passing is 5.90 (SD=3.29) and the mean of non-online consumers in the same is 5.32 (SD=1.93). The t value of buck-passing is 1.073. The mean of online consumers in procrastination is 4.82 (SD=2.27) and the mean of non-online consumers is 4.36 (SD=2.03). The t value of procrastination is 1.065. The mean of online consumers in hypervigilance is 5.58 (SD=2.13) and the mean of non-online consumers in the same is 4.80 (SD=1.76). The t value of hypervigilance is 1.991 ($p \leq .05$).

In table 3 there is prevalence of hypervigilance among online food consumers than non-online consumers So, online food consumers have more hypervigilance compared to non- online consumers. Hypervigilance is a non-vigilant coping pattern. Online food consumers are more into using the advance technologies for easing their daily functioning. This presents them in front of a variety of choices. The full range of consequences of choices is overlooked because of emotional excitement, perseveration, and limited attention. Hypervigilance is associated with severe emotional stress. A recent analysis by Dohle, Diel & Hofmann (2018) showed that some studies support the hypothesis that food eating behaviours affect executive functioning, i.e.,

International Journal of Physical and Social Science
Vol. 10 Issue 11, November 2020
ISSN: 2249-5894 Impact Factor: 6.644
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A

healthy eating habits promote the conservation of cognitive functions throughout life. Studies conducted by Morris et al., (2005) and Smith & Blumenthal (2016) also supports the above findings.

Table 4. mean, SD, and t values of online and non-online consumers with respect to the variable temperament.

VARIABLES	ONLINE CONSUMERS (N= 50)		NON-ONLINE CONSUMERS (N=50)		t VALUE
	MEAN	SD	MEAN	SD	
Activation Control	11.44	1.41	13.46	4.82	2.839**
Affiliation	15.10	2.47	13	2.92	3.878***
Aggression	12.96	3.62	11.50	4.04	1.901
Attention	15.30	2.19	16.24	2.42	2.033*
Depressive mood	17.06	2.58	16.12	3.21	1.611
Fear	8.58	2.42	8.96	2.38	0.791
Frustration	11.24	2.25	10.44	2.60	1.642
Inhibitory control	12.66	1.80	12.04	2.53	1.408
Pleasure sensitivity	17.34	3.91	18.32	3.54	1.312
Perceptual sensitivity	14.62	3.07	13.70	2.46	1.654
Shyness	10	1.73	10.80	2.65	1.785
Surgency	19.42	2.68	18.50	3.22	1.549

International Journal of Physical and Social Science
Vol. 10 Issue 11, November 2020
ISSN: 2249-5894 Impact Factor: 6.644
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A

$p \leq 0.05$*; $p \leq 0.01$**; $p \leq 0.001$***

The mean of online consumers in activation control is 11.44 (SD=1.41) and the mean of non-online consumers is 13.46 (SD=4.82). The t value of activation control is 2.839 ($p \leq .01$). The mean of online consumers in affiliation is 15.10 (SD=2.47) and mean of non-online consumers is 13 (SD=2.92). The t value of affiliation is 3.878 ($p \leq .001$). The mean of online consumers in aggression is 12.96 (SD= 3.62) and mean of non-online consumers is 11.50 (SD= 4.04). The t value of aggression is 1.901. The mean of online consumers in attention is 15.39 (SD= 2.19) and mean of non-online consumers is 16.24 (SD= 2.42). The t value of attention is 2.033 ($p \leq .05$). The mean of online consumers in depressive mood is 17.06 (SD=2.58) and mean of non-online consumers is 16.12 (SD=3.21). The t value of depressive mood is 1.611. The mean of online consumers in fear is 8.58 (SD= 2.42) and mean of non-online consumers is 8.96 (SD= 2.38). The t value of fear is 0.791. The mean of online consumers in frustration is 11.24 (SD=2.25) and mean of non-online consumers is 10.44 (SD=2.60). The t value of frustration is 1.642. The mean of online consumers in inhibitory control is 12.66 (SD= 1.80) and mean of non-online consumers is 12.04 (SD= 2.53). The t value of inhibitory control is 1.408. The mean of online consumers in pleasure sensitivity is 17.34 (SD=3.91) and mean of non-online consumers is 18.32 (SD=3.54). The t value of pleasure sensitivity is 1.312. The mean of online consumers in perceptual sensitivity is 14.62 (SD= 3.07) and mean of non-online consumers is 13.70 (SD= 2.46). The t value of perceptual sensitivity is 1.654. The mean of online consumers in shyness is 10 (SD=1.73) and mean of non-online consumers is 10.80 (SD=2.65). The t value of shyness is 1.785. The mean of online consumers in surgency is 19.42 (SD= 2.68) and mean of non-online consumers is 18.50 (SD= 3.22). The t value of attention is 1.549.

Regarding online food consumers have a shallow incidence of activation control in relation to non-online food consumers. This could be because online food consumers are always exposed to various distractions, especially online. A contradictory evidence suggest that activity is not related to eating behaviour (Haycraft, Farrow, Meyer, Powell & Blissett, 2011) but most of the online food consumers ordered food thrice a month. So, there is a chance that eating behaviour can decrease activation control (activity) of an individual. Moreover, interview schedule suggests that most of the online food consumers order junk food. This can be another reason for their decrease in activation control.

Adolescents and young adults have desire for affiliation with their loved ones. This influences their eating behaviour as well. There is a considerable predominance of affiliation among online food consumers compared to non-online consumers. This could be because of the busy schedule in urban areas. Interview schedule pinpoints that most of the young online food consumers order and consume their food with their family. A recent study conducted by Jerry. C et al., (2011)

International Journal of Physical and Social Science
Vol. 10 Issue 11, November 2020
ISSN: 2249-5894 Impact Factor: 6.644
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A

held that interpersonal factors are important in a variety of health behaviours and should be included in health behaviour models along with intrapersonal or cognitive factors. A good eating behaviour is a critically important health behaviour.

There exists a shallow decline in the attention of online food consumers than non-online consumers. Proper eating behaviour is a determinant factor for proper selective and sustained attention. The reduction in activation control of online food consumers and the preference for junk food is due to reduced attention. Preliminary findings of Kaisari, Dourish & Higgs (2017) suggest that a moderate strength exists for a positive association between ADHD and disordered eating. Different aspects of eating behaviour have separate effects on cognitive-affective function (Williams, Healy, Eade & Windle, 2002).

3.2 Result and discussion of impulsivity, decision-making and temperament of adolescent online consumers in urban and rural area.

Table 5 shows the mean, SD and t values of participants residing in rural and urban areas. There is significant difference in the frustration and perceptual sensitivity of online and non-online consumers residing in urban and rural areas. The mean of attentional impulsivity in urban area is 17.18 (SD= 3.253) and rural area is 17.18 (SD= 3.227). The t value of attentional impulsivity is 0.001. The mean of motor impulsivity in urban area is 23.08 (SD= 3.930) and rural area is 22.23 (SD= 4.410). The t value of motor impulsivity is 1.007. The mean of non-planning impulsivity in urban area is 27.21 (SD= 4.677) and rural area is 26.92 (SD= 4.474). The t value of non-planning impulsivity is 0.308.

Table 5. mean, SD, and t values of urban and rural area of residence with respect to the variable impulsivity.

VARIABLES	URBAN AREA (N= 61)		RURAL AREA (N=39)		t VALUE
	MEAN	SD	MEAN	SD	
Attentional Impulsivity	17.18	3.253	17.18	3.227	0.001
Motor Impulsivity	23.08	3.930	22.23	4.410	1.007
Non-planning Impulsivity	27.21	4.677	26.92	4.474	0.308

Preliminary analysis compared residence with the sub-variables of the study. The reason for no significant difference between impulsivity could be that the influence of literacy and television is growing in rural areas. Due to this, in urban as well as rural areas, gender differences are

International Journal of Physical and Social Science
Vol. 10 Issue 11, November 2020
ISSN: 2249-5894 Impact Factor: 6.644
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A

reducing, girls are acquiring education at par with boys and also their role in other spheres of day-to-day life is increasing in socioeconomic spectrum, these accounts for no significant gender difference in impulsivity scores in urban boys and girls. Moreover, a study conducted by Singh, Solanki & Bhatnagar (2008) also found out that there is no significant difference between impulsivity scores of adolescents of urban and rural areas.

Table 6. mean, SD, and t values of urban and rural area of residence with respect to the variable decision-making.

VARIABLES	URBAN AREA (N= 61)		RURAL AREA (N=39)		t VALUE
	MEAN	SD	MEAN	SD	
Vigilance	7.85	2.442	7.03	2.924	1.528
Buck-passing	5.38	2.934	5.97	2.288	1.078
Procrastination	4.57	2.327	4.62	1.900	0.093
Hypervigilance	5.41	2.085	4.85	1.800	1.389

The mean of vigilance in urban area is 7.85 (SD= 2.442) and rural area is 7.03 (SD= 2.924). The t value of vigilance is 1.528. The mean of buck-passing in urban area is 5.38 (SD= 2.934) and rural area is 5.97 (SD= 2.288). The t value of buck-passing is 1.078. The mean of procrastination in urban area is 4.57 (SD= 2.327) and rural area is 4.62 (SD= 1.900). The t value of procrastination is 0.093. The mean of hypervigilance in urban area is 5.41 (SD= 2.085) and rural area is 4.85 (SD= 1.800). The t value of hypervigilance is 1.389.

The decisions that youth within the age range 15-20 years make are almost similar like decisions regarding their career, friendship, right and wrong etc. Only an exceptional minority is exposed to unexpected adversities. As a result, there is no significant difference in the decision-making in urban and rural areas. A contradictory study conducted by Saenz, Downer & Wong (2018) indicate that cognitive functioning among people in rural area is less efficient compared to urban area. But this study was conducted in a different community.

International Journal of Physical and Social Science
Vol. 10 Issue 11, November 2020
ISSN: 2249-5894 Impact Factor: 6.644
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Table 7. mean, SD, and t values of urban and rural area of residence with respect to the variable temperament.

VARIABLES	URBAN AREA (N= 61)		RURAL AREA (N=39)		t VALUE
	MEAN	SD	MEAN	SD	
Activation Control	11.93	3.371	13.26	4.037	1.770
Affiliation	14.49	2.637	13.36	3.166	1.936
Aggression	12.56	3.744	11.72	4.104	1.053
Attention	15.62	2.237	16	2.524	1.782
Depressive mood	17.02	2.398	15.92	3.564	1.835
Fear	8.82	2.269	8.69	2.617	0.258
Frustration	11.23	2.224	10.23	2.7	2.013*
Inhibitory control	12.64	1.880	11.90	2.614	1.649
Pleasure sensitivity	17.92	3.835	17.69	3.650	0.292
Perceptual sensitivity	14.61	2.740	13.46	2.799	2.021*
Shyness	10.13	1.866	10.82	2.752	1.494
Surgency	19.26	2.670	18.49	3.417	1.268

$p \leq 0.05$*

The mean of activation control in urban area is 11.93 (SD= 3.371) and rural area is 13.26 (SD= 4.037). The t value of activation control is 1.770. The mean of affiliation in urban area is 14.49 (SD= 2.637) and rural area is 13.36 (SD= 3.166). The t value of affiliation is 1.936. The mean of aggression in urban area is 12.56 (SD= 3.744) and rural area is 11.72 (SD= 4.104). The t value of

aggression is 1.053. The mean of attention in urban area is 15.62 (SD= 2.237) and rural area is 16 (SD= 2.524). The t value of attention is 1.782. The mean of depressive mood in urban area is 17.02 (SD= 2.398) and rural area is 15.92 (SD= 3.564). The t value of depressive mood is 1.835. The mean of fear in urban area is 8.82 (SD= 2.269) and rural area is 8.69 (SD= 2.617). The t value of fear is 0.258. The mean of frustration in urban area is 11.23 (SD= 2.224) and rural area is 10.23 (SD= 2.700). The t value of frustration is 2.013 ($p \leq .05$). The mean of inhibitory control in urban area is 12.64 (SD= 1.880) and rural area is 11.90 (SD= 2.614). The t value of inhibitory control is 1.649. The mean of pleasure sensitivity in urban area is 17.92 (SD= 3.835) and rural area is 17.69 (SD= 3.650). The t value of pleasure sensitivity is 0.292. The mean of perceptual sensitivity in urban area is 14.61 (SD= 2.740) and rural area is 13.46 (SD= 2.799). The t value of perceptual sensitivity is 2.021 ($p \leq .05$). The mean of shyness in urban area is 10.13 (SD= 1.866) and rural area is 10.82 (SD= 2.752). The t value of shyness is 1.494. The mean of surgency in urban area is 19.26 (SD= 2.670) and rural area is 18.49 (SD= 3,417). The t value of surgency is 1.268.

In table 7 a considerable prevalence of frustration exists in urban area than rural area. Studies point out that sadness and frustration stimulate appetite. The interview schedule highlights that most of the participants who are online food consumers belong to urban area and non-online food consumers belong to rural area. In urban areas the youth are coping up with their academic stress, various choices that come in front of them and keeping up the expectations of others. In the present scenario online food delivery apps add to the situation as it leads to craving. Moreover, interview schedule suggests that online food consumers order food mostly based on craving. Frustration is a negative affectivity that is associated with the Big Five trait of Neuroticism, which shows medium to large gender differences favouring girls (Costa, Terracciano, & McCrae, 2001; Feingold, 1994).

There is a shallow incidence of perceptual sensitivity in urban area compared to rural area. Else-Quest, Hyde, Goldsmith & Hulle (2006) showed that girls were better at perceiving low-intensity environmental stimuli than boys were. This may represent girls' greater awareness of subtle environmental changes. Youth in urban areas are aware of the changes in their external environment because they are in flow with the trends and changes in the world. Most of the developments and innovations are regularly and habitually introduced in urban areas. As a result, they are always updated with their surroundings. This is one reason for their use of online food delivery apps for food consumption. In rural areas on the other hand no many changes affect their surroundings.

4. Conclusion

Thus, it can be concluded that impulsivity does not influence online consumers and non-online consumers in their eating behaviour i.e., ordering food through online food delivery system. Decision-making is influenced by online consumption as it leads to the predominance of

maladaptive decision-making style (hypervigilance). Temperament is influenced by online consumption as it affects the activation control, affiliation and attention of online consumers compared to non-online consumers. On the other hand, there is an increase in the frustration and perceptual sensitivity of adolescents in urban area than rural area which is contributing to stimulation of appetite.

The present study reveals the need for enhancing healthy eating behaviour among adolescents as it affects their decision-making capacity and temperament. The study implies the negative dimensions of online food consumption that leads to maladaptive decision-making and temperament styles among adolescents. The study reveals the importance of vigilance in decision-making, adversities of maladaptive temperament styles (aggression, fear frustration and depressive mood) of adolescents exposed to online food delivery system. Thus, the study provides an insight into the upcoming prevalence of obesity and executive dysfunctions among adolescents due to the unhealthy eating behaviour.

REFERENCES

Arora, A. (1990). Study of Correlates of Sensation Seeking among College Students. Unpublished Doctoral Dissertation, Punjab University, Chandigarh.

Bhushan, R., Bailay, R., & Sanandakumar, S. (2016). In a first, Kerala imposes 14.5% 'fat tax' on junk food, *The Economic Times*.

Braet, C., Claus, L., Verbeken, S., &Vlierberghe, L. (2007). Impulsivity in overweight children, US National Library of Medicine, National Institute of Health.

Chiang, H., Chen, Y., & Shur-Fen Gau, S. (2015). Altered white matter tract property related to impaired focused attention, sustained attention, cognitive impulsivity and vigilance in attention-deficit/hyperactivity disorder. *Journal of Psychiatry and Neuroscience*, *40*(5).

Ciccarelli, S. K., White, J. N., & Mishra, G. (2018). *Psychology* (5th ed.). New Delhi: Pearson India Education Services Pt. Ltd.

Dohle, S., Diel, K., and Hofmann, W. (2018). Executive functions and the self-regulation of eating behavior: a review. *Appetite* 124.

Favieri, F., Forte, G., &Casagrande, M. (2019). The Executive Functions in Overweight and Obesity: A Systematic Review of Neuropsychological Cross-Sectional and Longitudinal Studies. *Frontiers in Psychology*, *10*.

Fuentes, M. D. C. P., Jurado, M. M. M., Martínez, J. J. C., Rubio I. M., &Gázquez, J. J. (2016). Sensation-Seeking and Impulsivity as Predictors of Reactive and Proactive Aggression in Adolescents. *Frontiers in Psychology*, *7*.

Haycraft, E., Farrow, C., Meyer, C., Powell, F., &Blissett, J. (2011). Relationships between temperament and eating behaviours in young children. *Appetite*, *56* (3).

Hockenbury, S. E., Nolan, S. A., & Hockenbury, D. H. (2016). *Discovering Psychology* (7th ed.). New York: Worth Publishers Macmillan Learning.

Hurlock, E. B. (1981). *Developmental Psychology- A Lifespan Approach*. New York: The McGraw-Hill Companies, Inc.

Jasinska, A.J., Yasuda, M., Burant, C. F., Gregor, N., Khatri, S., Sweet, M., &Falk, E. B. (2012). Impulsivity and inhibitory control deficits are associated with unhealthy eating in young adults. *Appetite*, *59*(3).

Kaisari, P.,Dourish, C. T.,&Higgs, S. (2017). Attention Deficit Hyperactivity Disorder (ADHD) and disordered eating behaviour: A systematic review and a framework for future research. *Clinical Psychology Review*, *53*.

Khanna, N. (2012). Effects of Temperamental Dimensions Food Intake and Gender on Cognitive Performance. Unpublished Doctoral Dissertation, Guru Nanak Dev University, Amritsar.

Kimble, M., Boxwala, M., & Fleming, K. (2014). The Impact of Hypervigilance: Evidence for a Forward Feedback Loop. *Journal of Anxiety Disorders*, *28*(2).

Kuin, N., Masthoff, E., Kramer, M., & Scherder, E. (2015). The role of risky decision-making in aggression: A systematic review. *Aggression and Violent Behaviour*, *25*(A).

Macchi, R., MacKew, L., &Davis, C. (2017). Is decision-making ability related to food choice and facets of eating behaviour in adolescents?, US National Library of Medicine, National Institute of Health.

McKeown, A., & Nelson, R. (2018). Independent decision making of adolescents regarding food choice. *International Journal of Consumer Studies*, *42*(5).

Mehra, N. (2014). Negative Emotions in Children: Structure and its Relation to Temperament. Unpublished Doctoral Dissertation, Kurukshetra University, Kurukshetra.

Morris, M. C., Evans, D. A., Tangney, C. C., Bienias, J. L., and Wilson, R. S. (2005). Fish consumption and cognitive decline with age in a large community study. *Arch. Neurol.* 62.

Morris, E. (2017). Impulsivity and procrastination. *Science*, *357*(6357).

Nasser, J. A., Gluck, M. E., & Geliebter, A. (2004). Impulsivity and test meal intake in obese binge eating women. *Appetite*, *43*.

Nederkoorn, C., Smulders, F. T., Havermans, R. C., Roefs, A., &Jansen, A. (2006). Impulsivity in obese women. *Appetite*, *47*(2).

Passanisi, A., &Pace, U. (2017). The unique and common contributions of impulsivity and decision-making strategies among young adult Italian regular gamblers. *Personality and Individual Differences*, *105*.

Riley E, Okabe H, Germine L, Wilmer J, Esterman M, et al. (2017) Correction: Gender Differences in Sustained Attentional Control Relate to Gender Inequality across Countries. *PLOS ONE*, *12*(1).

Roberts, W., Fillmore, M. T., & Milich, R. (2011). Linking Impulsivity and Inhibitory Control Using Manual and Oculomotor Response Inhibition Tasks. NH-PA, *Acta Psychol (Amst)*, *138*(3).

Sanand, S. R. (2019). Junk food becoming menace in India! Data points to dangerous increase in consumption, *The Financial Express*.

Santrock, J. W. (2013). *Life-span Development* (14th ed.). New York: The McGraw-Hill Companies, Inc.

Schiena, R. D., Luminet, O., Chang, B., & Philippot, P. (2013). Why are Depressive Individuals Indecisive? Different Modes of Rumination Account for Indecision in Non-clinical Depression. New York: Springer Science+Business Media.

Sharma, P. (2015). Impact of Intervention Programme on Decision Making Ability and Self-esteem in Adolescents. Unpublished Doctoral Dissertation, Banasthali University, Rajasthan.

Singh, A. K. (2018). *Tests, Measurements and Research Methods in Behavioural Sciences*. New Delhi: Bharati Bhawan.

Smith, A., Leekam, S., Ralph, A., &McNeill, G. (1988). The influence of meal composition on post-lunch changes in performance efficiency and mood. *Appetite*, *10*(3), 195.

Smith, A.P., Kendrick, A. M., &Maben, A. L. (1992). Effects of breakfast and caffeine on performance and mood in the late morning and after lunch, US National Library of Medicine, National Institute of Health.

Smith, P. J., and Blumenthal, J. A. (2016). Dietary factors and cognitive decline. *J. Prevent. Alzheimer Dis. 3* (1), 53-64.

Stanford, M. S., Mathias, C. W., Dougherty, D. M., Lake, S. L., Anderson, N. E., & Patton, J. H. (2009). Fifty years of the Barratt Impulsiveness Scale: An update and review. *Personality and Individual Differences*, *47*.

Swann, A. C., Steinberg, J. L., Lijffijt, M., & Moeller, F. G. (2008). Impulsivity: Differential relationship to depression and mania in bipolar disorder. *J Affect Disord*, *106*(3).

Symmank, C. et al., (2017). Predictors of food decision making: A systematic interdisciplinary mapping (SIM) review. *Appetite*, *110*.

Ural, C., Belli, H., Akbudak, M., Solmaz, A., Bektas, Z. D., & Celebi, F. (2017). Relation of binge eating disorder with impulsiveness in obese individuals. *World Journal of Psychiatry*, *7*(2).

Waxman, S. E. (2009). A systematic review of impulsivity in eating disorders. *European Eating Disorders Review*, *16*(6).

Williams, J. M. G.,Healy, H.,Eade, J., &Windle, G. (2002). Mood, eating behaviour and attention. *Psychological Medicine*, Cambridge University Press, *32*(3).

Wypych, M., Matuszewski, J., & Dragan, W. (2018). Roles of Impulsivity, Motivation, and Emotion Regulation in Procrastination – Path Analysis and Comparison Between Students and Non-students. *Frontiers in Psychology*, *9*.