RESEARCH ARTICLE

Eating behaviours as predictors of satisfaction with food related life

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Abstract

Objective: To identify how different eating behaviours are correlated, and to analyse which behaviour is a true predictor of food satisfaction while comparing the pattern in gender behaviours.

Methods: The correlational study was conducted at the Department of Humanities, COMSATS University, Islamabad, Pakistan, from January to May, 2019, and comprised adult individuals of both genders from different universities and food outlets located in Islamabad. Data was collected using the adult eating behaviour questionnaire and satisfaction with food-related life scale. Data was analysed using SPSS version 25.

Results: Of the 430 subjects, 183(42.5%) males and 247(57.4%) were females. All subscales of the adult eating behaviour questionnaire were correlated positively with the satisfaction with food-related life scale scale except for satiety responsiveness which showed negative correlation (r=-0.07). Enjoyment of food, food responsiveness and hunger subscales acted as true predictors of satisfaction with food-related life with correlation values of 0.37, 0.38 and 0.33 respectively. Significant difference was found across gender only on satiety responsiveness (p<0.05).

Conclusion: Increase in enjoyment of food, food responsiveness and hunger were found to increase satisfaction with food-related life.

Keywords: Eating behaviours, Satisfaction with food-related life, Satiety responsiveness, Enjoyment of food.

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Introduction

Eating, a requisite for human life, can be defined as an essentially rewarding behaviour which is intrinsically accompanied by mood and emotions.[1] A person's social, genetic, physiological and psychological factors interact with one another and influence his/her food preferences, meal timing and quantity of food, and, therefore, they collectively are called eating behaviour.[2] Physiological and emotional states of an individual are greatly affected by consuming food,[3] therefore the significance of food is inevitable for the sustenance of human life.[4]

Eating, indeed, is indispensable for survival, but lack or access of it can lead to under-nutrition, over-nutrition and eating disorders.[5] Moreover, over-eating often leads to obesity and may create health problems.[6,7] Externality theory is one of the prominent theories which focus on the importance of external cues in obese people compared to internal hunger and satiety signals. According to this theory, obese people react more to external cues than internal hunger.[8,9] According to psychosomatic theory, excessive stress and low mood can lead to over-eating.[8,9] It occurs when people become unable to differentiate between hunger and adverse emotional conditions. Thus, this inability causes over-eating in many people. It could also be termed emotional eating .[8,9]

People having food approach traits, such as 'food responsiveness' usually have larger appetite or show greater interest in food.[10] Some people possess food avoidance traits, such as 'satiety responsiveness', and, thus, have smaller appetite or lower interest in food.[10] Demographic variables, such as age, gender, and socioeconomic status (SES), and other factors, such as delivery and distribution of food to markets, affect the choice and intake of food within a culture.[11] Moreover, socio-cultural and ethnic factors also affect choice of food and role of food in people's life.[12] Studies[13,14] have shown food and diet quality as an important domain of life that is positively linked with overall life satisfaction. Satisfaction with life is defined as an overall assessment of feelings and attitudes about one's life at a particular point in time ranging from negative to positive.[15] A person's overall assessment regarding their food and eating habits is termed satisfaction with his food-related life (SWFRL).[16] People experience significant change and improvement in their mood after food consumption and intake of calories.[17]

The current study was planned to explore eating behaviours closely linked to SWFRL.

Subjects and Methods

The correlational study was conducted at the Department of Humanities, COMSATS University, Islamabad, Pakistan, from January to May, 2019, and comprised adult individuals of both genders from different universities and food outlets located in Islamabad. After approval from the institutional ethics review board, the sample size was calculated using Raosoft online calculator[18] with 95% confidence interval

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(CI) and 5% margin of error.

The sample was raised using purposive sampling technique from among adults at different universities, including COMSATS University, Bahria University, and Quaid-e-Azam University (QAU) and restaurants including Roasters, Ginyaki and KFC in Islamabad. Permission from respective managements was obtained in this regard. Online Google forms[19] were also used to approach prospective subjects.

Those included were educated individuals of either gender aged >20 years who could understand the English language. The rest were excluded.

After taking informed consent of the subjects, they were categorised into two age groups; 20-35 years; and >35 years.

Data was collected using a demographic sheet along with adult eating behaviour questionnaire (AEBQ) and the SWFRL scale which were all in the English language. The AEBQ was originally found to be valid and reliable with alpha value >0.70.[10] It is a self-report inventory based on 35 items, including four food approach subscales and four food avoidance subscales. The responses are scored using a likert scale ranging from 'strongly disagree' to 'strongly agree'. Higher score shows higher indication of occurrence of that eating behaviour. The questionnaire includes questions about different eating behaviours, including food responsiveness (FR), emotional over-eating (EOE), emotional under-eating (EUE), enjoyment of food (EF), hunger (H), satiety responsiveness (SR), food fussiness (FF) and slowness in eating (SE). The AEBQ's subscales showed good internal reliability with chronbach alpha value >0.70 in the current study.

SWFRL scale[17] is a valid and reliable tool with reported alpha value of 0.852.[20] It comprises 5 items scored on a Likert scale ranging from 'strongly disagree' to 'strongly agree'. The scores range from 5 to 30 and higher scores reflect elevated level of a person's satisfaction with his food-related life. The alpha coefficient of the scale in the present study was 0.75.

Data was analysed using SPSS version 25. Frequencies and percentages of demographic data were computed. Percentages of eating behaviours were calculated using descriptive statistics. Mean values and standard deviations were used to express differences across gender on eating behaviours assessed with t test. Correlation between subscales of AEBQ and SWFRL scale was also found using Pearson correlation analysis. P<0.05 was considered statistically significant.

Results

Of the 430 subjects, 183(42.5%) were males and 247(57.4%) were females. The highest mean value was for EF 4.07Q±0.79, indicating that most participants enjoyed themselves while eating food.

A significant positive correlation was found between SWFRL and FR (r=0.38), EF (r=0.37**), and H (r=0.33) subscales, while SR showed negative correlation (Table 1).

Multiple linear regression showed that EF and FR accounted for unique variance in SWFRL (Table 2).

Table-1: Pearson correlation analysis between sub-scales of adult eating behaviours questionnaire (AEBQ) and satisfaction with food-related life (SWFRL) scale.

Variables	SWFRL	Mean±SD
EF	0.37**	4.07±0.79
EOE	0.13	2.74±0.97
EUE	0.04	3.12±0.85
FF	0.10	3.22±0.74
FR	0.38**	3.38±0.85
H	0.33**	3.27±0.74
SE	0.09	2.93±0.77
SR	-0.07	2.99±0.78

*p<0.05, **p<0.01, SD: Standard deviation, EF: Enjoyment of food, EOE: Emotional overeating, EUE: Emotional under-eating, FF: Food fussiness, FR: Food Responsiveness, H: Hunger, SE: Slowness in eating, SR: Satiety responsiveness.

Table-2: Predictors of satisfaction with food-related life (SWFRL).

Variables	B	SWFRL	
		LL	UL
Constant	12.7	11.15	14.16
EF	0.95	0.513	1.38
FR	0.92	0.518	1.32
F	45.7		
R^2	18		

LL: Lower limit, UL: Upper limit, EF: Enjoyment of food, FR: Food responsiveness.

Table-3: Mean (M), standard deviation (SD) and t-values of eating behaviours on the basis of gender (n=430).

Variables	Males (n=183) M±SD	Females (n=247) Mean±SD	t	*p*-value
EF	4.08±0.84	4.06±0.74	0.25	0.80
EOE	2.7±0.97	2.7±0.97	0.14	0.89
EUE	3.0±0.87	3.1±0.83	1.94	0.05
FF	3.2±0.71	3.2±0.77	0.27	0.79
FR	3.4±0.85	3.3±0.85	0.28	0.78
H	3.2±0.76	3.2±0.73	0.08	0.93
SE	2.9±0.82	2.9±0.74	0.60	0.54
SR	2.8±0.80	3.0±0.75	3.12***	0.00

EF: Enjoyment of food, EOE: Emotional overeating, EUE: Emotional under-eating, FF: Food fussiness, FR: Food responsiveness, H: Hunger, SE: Slowness in eating, SR: Satiety responsiveness, p<0.001.

No significant difference was found across gender in eating behaviours except for SR, with females scoring higher than males ($p<0.05$).

Discussion

The study found that EF, FR and H had significant positive relationship with SWFRL. EF and FR were significant in predicting a participant's satisfaction with food-related life. A significant difference was found across the gender only on SR.

Positive correlation found between EF and SWFRL is also supported by earlier findings.[21] Positive correlation found in the current study between FR and SWFRL is also in line with literature.[17,22] In the current study, H was also found to be positively correlated with SWFRL and literature has shown that food nourishes our body and makes us feel wholesome and complete.[23] SR showed negative correlation with SWFRL in the current study, indicating that decrease in SR will increase SWFRL. It is in accordance with a previous research.[24]

Regression analysis showed that EF and FR were significant in predicting a participant's SWFRL. This is supported by previous stdies.[17,22]

There was no major difference across gender in terms of eating behaviours except for SR where females scored higher than males. These findings are in line with earlier research.[25]

The current study has limitations as participants of all ages were not included. There were only a few participants in the category of middle adulthood. Furthermore, population unable to understand the English language was also excluded.

Conclusion

People mostly eat for enjoyment and increase in EF increased SWFRL. The positive correlation between FR and H with SWFRL indicated that FR and H also heightened people's SWFRL.

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