



ISSN: 0975-833X

SHORT COMMUNICATION

IS EMOTIONAL EATING A PROBLEM OF CONCERN AMONG YOUTHS IN POOR COUNTRIES?
EXAMPLE FROM SUDAN

^{1,*}Abdulrahman O. MUSAIGER, ²Fatima Al-Khalifa and ³Mariam Al-Mannai

¹Arab Center for Nutrition, Bahrain

²College of Education, University of Khartoum, Sudan

³College of Science, University of Bahrain, Bahrain

ARTICLE INFO

Article History:

Received 22nd October, 2015

Received in revised form

05th November, 2015

Accepted 18th December, 2015

Published online 31st January, 2016

Key words:

Anger, Anxiety, Boring,
Emotional eating,
Watching television,
Sudan, Youths.

ABSTRACT

The aim of this study was to estimate the prevalence of emotional eating among youths (university students) in Sudan. The students were recruited from University of Khartoum. The total sample was 400 (183 males and 217 females), with ages ranging from 18 to 30 years. Females were more likely to eat while watching television ($p < 0.001$) and when bored ($p < 0.01$), whereas males were more prone to eat late at night ($p < 0.02$). There were no significant differences between genders regarding eating when angered and eating when anxious. The findings of this study indicated an alarming prevalence of emotional eating among urban youths in Sudan.

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Citation: Abdulrahman O. MUSAIGER, Fatima Al-Khalifa and Mariam Al-Mannai, 2016. "Is emotional eating a problem of concern among youths in poor countries? Example from Sudan", *International Journal of Current Research*, 8, (01), 25020-25022.

INTRODUCTION

Many adolescents and adults experience emotional eating in their lives. Although no singular definition for emotional eating exists, it comprises behaviour characterised by over eating in response to negative feelings rather than hunger (Nguyen-Rodriguez et al., 2009). Several emotional, social and situational factors are associated with emotional eating. Although, this behaviour is linked with some unhealthy dietary habits, documentation of emotional eating is scarce, particularly in developing countries. Studies in Western countries have found that there is positive relationship between emotional eating and obesity (Hawkins and Stewart, 2012), as well as disordered eating (Masheb and Grilo, 2006). There is good evidence that obesity and disordered eating are widely spread among adolescents and youths, worldwide. In Arab countries, for example, the prevalence of overweight and obesity among adolescents (15-18 years) ranged from 20% to 60% (Musaiger et al., 2012), whereas the prevalence of disordered eating ranged from 14% to 47% among the same age group (Musaiger et al., 2013). The nutrition transition, which is characterised by marked socio-economic transformation, has occurred in most developing countries over

the past decades. Such transition has led to many changes in dietary and lifestyle patterns (Amuna and Zotor, 2008). Even in poor countries such as Sudan, it has been reported that there are changes in urban areas in the past decade towards westernised lifestyle patterns and food habits (Nagwa et al., 2011). As a result of this nutrition transition, obesity and its co-morbidities have become a problem of concern in urban areas in these countries (Musaiger and Al-Hazzaa, 2010). Therefore, information on the magnitude of emotional eating in the community would contribute to successful prevention and treatment of obesity and disordered eating in such a community. This short communication aimed to provide information on the prevalence of emotional eating among youths (university students) in Sudan.

MATERIALS AND METHODS

A recruited sample of 400 students (183 males and 217 females) from the College of Education, University of Khartoum, Sudan, was included in this study. Their ages ranged from 18 to 30 years, with a mean age of 21.3. All participants provided consent to participate in the study. The data were collected in the main hall of the College of Education. The collection of data was done by trained final year nutrition students.

*Corresponding author: Abdulrahman O. MUSAIGER
Arab Center for Nutrition, Bahrain.

A self-reported validated questionnaire was used to gather the data. Detailed information on the reliability and validity of the questionnaire has been published elsewhere (Musaiger et al., 2011). This short study included the section on emotional eating in the questionnaire. Five questions related to emotional eating were included: eating while watching television, eating when bored, eating when angered, eating late at night and eating when anxious. Four options were given to answer these questions: mostly, sometimes, rarely and none. For the analysis, the answers rarely and none were combined. The ethical permission to carry out this study was granted by the Department of Nutrition, College of Education, University of Khartoum. The statistical analysis was performed using SPSS version 20. Chi-square tests were used to determine the presence of association between gender and emotional eating.

RESULTS AND DISCUSSION

The prevalence of emotional eating among Sudanese university students is provided in Table 1. Females were more likely to eat while watching television than males ($p < 0.001$), whereas males were more prone to eat late at night than females ($p < 0.024$). Among females, 18% mostly ate when bored, compared with 7.1% of males ($p < 0.004$). There were no statistically significant differences between males and females regarding eating when angered and when anxious.

Table 1. Prevalence of emotional eating among university students in Sudan by gender

Emotional eating	Male		Female		P-value	Total	
	N	%	N	%		N	%
Eating while watching television							
Mostly	15	8.2	56	25.8	0.000	71	17.8
Sometimes	62	33.9	86	39.5		148	37.0
Rarely or none	106	57.9	75	34.6		181	45.2
Eating when bored							
Mostly	13	7.1	39	18.0	0.004	52	13.0
Sometimes	38	20.8	45	20.7		83	20.8
Rarely or none	132	72.1	133	61.3		265	66.2
Eating when angered							
Mostly	15	8.2	22	10.1	0.788	37	9.2
Sometimes	18	9.8	22	10.1		40	10.0
Rarely or none	150	82.0	173	79.7		323	80.8
Eating late at night							
Mostly	23	12.6	15	6.9	0.024	38	9.5
Sometimes	58	31.7	54	24.9		112	28.0
Rarely or none	102	55.7	148	68.2		250	62.5
Eating when anxious							
Mostly	13	7.1	18	8.3	0.802	31	7.8
Sometimes	25	13.7	33	15.2		58	14.5
Rarely or none	145	79.2	166	76.5		311	77.7

This study suggests that emotional eating is a problem of concern among youths in an economically poor country like Sudan. The most common types of emotional eating prevalent among Sudanese university students were: eating while watching television, eating when bored and eating late at night. It was reported that eating while watching television (Champan et al., 2014) and eating late night (Gallant et al., 2012) have been associated with the risk of obesity, a growing health problem in urban Sudan. Obese individuals, when bored, perceive time as passing more slowly than non-obese individuals and thus ate sooner (Rodin, 1975). About 9.2% of adolescents ate mostly when angered whereas 7.8% ate mostly when anxious. It was found that eating when angered and

when depressed may increase the risk for metabolic syndrome (Goldbacher and Matthews, 2007), and this adds another health burden associated with emotional eating. This short study has some limitations. First, the data included one college, and therefore does not necessarily represent the youths at Khartoum University nor in Sudan. Second, the study relied on self-reported data and accordingly depends on students' recall bias. Third, the study did not investigate other factors associated with emotional eating, such as obesity, family environment and psycho-social factors. Nevertheless, in contrast to a commonly held belief that emotional eating is not a problem of concern in poor economic countries, the current study showed that emotional eating was relatively frequent among youths in Sudan. Since this phenomenon is associated with a risk of obesity, disordered eating and metabolic syndrome, this creates the need to include emotional eating in any programme to prevent and control these health conditions. Further research on factors associated with emotional eating, particularly in developing countries, is urgently needed. We hope this short report will stimulate other researchers to carry out more comprehensive studies on this issue.

Conflict of interest

The authors declare no conflict of interest.

Authors' participation

AOM and FA participated in designing the study. FA supervised collecting the data. MA analysed the data. AOM prepared the first draft of the manuscript. All authors read and approved the final draft.

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