

Psychology Aspects of Eating Behaviors is a Nutrition and Health Problem

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Abstract: In recent years, overweight and obesity have reached the status of a global pandemic and are particularly prevalent in the world. Overweight and obesity identified as risk factors for several health problems, including type 2 diabetes, hypertension, coronary heart disease and stroke. In recognition of the fact that reducing the burden of obesity and overweight has the potential to decrease mortality and disease worldwide, the World Health Organisation established that promoting healthy diets and physical activity is now a public health priority.

This research paper aims to discuss the nutrition and health problem as well as eating behaviour from the psychological aspects. This issue is very significant nowadays and considers it to be a global problem. Here the authors made research and analyses the background of this problem.

Keywords: Psychology, Eating, Behaviors, Nutrition, Health, problem.

INTRODUCTION

The causes of obesity include genetic predispositions, living in an urbanised environment with easy access to food, and lifestyle factors such as unhealthy dietary habits and lack of physical exercise. It is believed that obesity can be prevented by leading a lifestyle where the amount of energy consumed through food balance by the amount of energy spent on the activity and physical exercise [1].

However, not all people adhere to these guidelines, and a recent report based on data from England revealed that only 31% of adults met the 'five portions of fruit and vegetables per day'. In contrast, 67% of men and 55% of women 12 met the physical activity guidelines. Many existing behavioural interventions to prevent obesity are delivered at an individual level and include a change in diet or exercise habits or a combination of the two. Evaluation of research shows that these interventions have been only moderately effective. There is evidence to suggest that behavioural interventions can indeed change eating and exercise habits; but, results are inconclusive as to which behaviour change techniques are the most effective and whether their effects are lasting [2].

It is worth noting that the majority of existing behavioural interventions aimed at promoting healthy eating target the individual, using techniques such as facilitating intention formation, providing feedback, or prompting self-monitoring. However, following a recent finding that obesity spreads in social networks, it has

been suggested that behavioural interventions might benefit from taking advantage of social network phenomena [3].

In other words, it may be beneficial to develop interventions aimed at individuals within their social context. This may include delivering interventions for families, schools or workplaces, but also encouraging individuals to build social networks where their efforts to maintain a healthy diet would be supported. The focus on social networks and groups resonates well with existing research in the social psychology of eating, which has demonstrated that social factors exert a powerful influence over what and how much people eat. It is, therefore, necessary to improve our understanding of the role of social factors in healthy eating, to develop more effective healthy eating interventions. The Individual Perspective: Theory of Planned Behaviour Traditionally, psychological research on health has been predominantly individual-oriented, focussing on socio-cognitive factors such as attitudes, health beliefs or risk perception as predictors of health behaviour [4].

Some social groups have a reputation for engaging in very unhealthy behaviours. Think about students; for example, they are accused of binge drinking every weekend, eating pizza or noodles every day, and comforting themselves with chocolate or sweets during long nights of exam preparation. Other groups have a better reputation. Young professionals are stereotyped to eat lots of vegetables, drink only water, and spend their evenings jogging or working out at a gym. Although these are just stereotypes, there is a grain of truth in them, in that the social groups we identify with affect what we do, and that this influence extends to

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health-relevant behaviours such as eating, drinking, or exercising. Recent research in both psychology and economics shows that social identities prescribe behaviours for people. More often than not, social groups create norms as to which behaviours are desirable and accepted, and which are not [5].

The content of the research focuses on the research question.

The research question

Do social identities matter in predicting healthy eating?

If so, are some identities more instrumental in shaping eating behaviour than others? People typically possess multiple social identities, and many of these are likely to provide no clear norm or standard regarding eating behaviour. Still, others might help motivate people to maintain a healthy diet. Identifying the social identities that do influence the way people eat is an important first step addressed in this research. The studies included in this research focus, in particular, on female, family, and student social identity.

BACKGROUND

Previous literature suggests that social factors exert a powerful influence over people's eating behaviour. The studies presented in this research tested the prediction that particular social identities are associated with healthier eating.

METHOD

The study included an experimental manipulation of social identity salience and measurement of healthy eating intentions and behaviour (a choice between a healthy and unhealthy snack).

In Study 1, female, family or personal identity was made salient.

Study 2 included a 2 x 2 design, whereby social identity salience (female vs no-identity control) and measurement order (intention measured before behaviour intention measured after the behaviour) were manipulated.

RESULTS

The sample consisted of 128 women and 60 men aged 18 to 55 years. The main group of subjects including 64 women and 30 men, with a body mass index (BMI) of greater than or equal to 30, who were clients of weight loss programs of the medical and psychological centre (N = 66) or were registered in connection with the nutritional obesity in the centre of family medicine in Almaty (N = 28). A vital exclusion criterion in the formation of a sample of subjects was the presence of established medical diagnoses of diseases of the endocrine system, which can affect the development of obesity. Exclusion of test data was carried out by medical specialists at the Center during the selection of participants in training groups, among which a study was conducted. In the case of patients of the Family Medicine Center, medical records were analyzed for exclusion.

Also, 64 women, 30 men, with a BMI <27, which corresponds to average weight, were waxed as a comparison group in the sample of subjects. The age of the subjects is from 18 to 55 years. The comparison group was formed so that the subjects in it were comparable in terms of socio-demographic characteristics (gender, age, education, profession, marital status) with the subjects of the main group.

Table 1: Characteristics of the Sample by Gender, Age, BMI

gender, age and BMI					
features	Level meaning	Main group		Test group	
gender		female	male	female	male
volume		64	30	64	30
age	medium	40.05	39.03	34.02	36.30
	minimum	18.00	20.00	21.00	19.00
	maximum	55.00	55.00	54.00	55.00
BMI	medium	37.59	33.87	21.90	22.69
	minimum	30.00	30.00	17.60	19.00
	maximum	52.70	42.90	28.00	27.50

The characteristics of the sample by gender, age and BMI are presented in Table 1.

DISCUSSION

By using the Dutch questionnaire on eating behaviour in subjects, the scales of restrictive, emotional, and external eating behaviour were determined, and the main statistical indicators were calculated for the main group of subjects (BMI > 30.0) and the comparison group (BMI < 27.0).

Restrictive eating behaviour is characterized by excessive food self-restriction and unsystematic adherence to an overly strict diet, which subsequently leads to a breakdown and ricocheting of excess weight. Emotional eating behaviour is observed after stress or emotional discomfort, to which the individual responds by excessive consumption of food. In contrast, the stimulus for eating is not hunger, but various negative emotions. External eating behaviour is associated with increased sensitivity to external stimuli of food intake. In other words, the individual does not respond to internal stimuli (glucose level, empty stomach, etc.), but responds to external stimuli (a grocery store window, a well-laid table, food advertising, etc.). Man "eats with his eyes" ~ saw, then ate.

Statistically processed results of the diagnosis of eating styles are presented in Table 2.

It was found that the differences between subjects with obesity and subjects with normal weight are reliable on all three scales of the Dutch nutritional questionnaire, which measures the restrictive, emotiogenic, external styles of eating behavior. However, the scales of the questionnaire themselves are independent of each other. We can conclude that

forms of eating behaviour can serve as the basis for creating a typology of psychological characteristics of obese clients.

To prepare the study materials, we conducted two pilot studies, in which participants were asked about their social identities and the relevance of these social identities to their eating habits. In the first pilot study, nine female students were asked to list as many of their social characters as they could think. After producing the list, participants were asked to think about whether or not each of their identities was associated with their food choices. Finally, they were asked to circle the names of those identities which, in their perception, influenced their food choices. Seven social identities that were mentioned most frequently are listed in Table 3. These seven identities were used in the second pilot study, in which thirty female students were asked to rate how important the different identities were to them, and to what extent they perceived these to influence their eating habits. For each identity, participants responded to two statements: "This identity is important to who I am" and "This identity influences what I eat." The responses were given on Likert-type scales ranging from 1 (strongly disagree) to 7 (strongly agree). As presented in Table 3, female and family identity were perceived as the most important ones and also the ones most relevant to eating; these two social identities were selected to be used in Study 1.

The first study designed to test the hypothesis that increasing the salience of social identities associated with healthy eating will increase healthy eating intentions and behaviour. In line with findings from the pilot studies, the effect of female and family identity salience was compared to the effect of personal identity salience. It was predicted that increasing the

Table 2: The Average Values of the Scales of Eating Behaviour in Groups of Subjects

Scales of behaviour	Main group			Test group		
	limited	emo	ex	limited	emo	ex
number	94	94	94	94	94	94
medium	2.560638	2.447234	3.198936	2.065960	1.629040	2.865960
minimum	1.000000	1.000000	1.600000	1.000000	1.000000	1.400000
maximum	4.500000	5.000000	4.600000	4.400000	5.000000	4.800000
Dif decl.	0.737654	1.029458	0.680527	0.858800	0.752430	0.592160

Thus, the differences between the group of subjects with obesity and a group of subjects with normal weight are reliable on a scale.

"Restrictive eating behaviour" at $p < 0.000$, on a scale.

"Emotiogenic eating behaviour" at $p < 0.000$, on the scale of "External eating behaviour" at $p < 0.000$.

saliency of either of the social identities would increase healthy eating intentions, and would lead to a healthier snack choice. Method Design. A 3×1 between-subjects experimental design was employed to test the study hypotheses. There were two experimental conditions in which social identities were primed: a family identity condition and a female identity condition. In the control condition, the saliency of personal identity was increased. This was done to maximise the similarity between experimental procedures in all three groups and to be able to explore the role of social identities specifically, as opposed to personal identity [6].

Table 3: Importance and Relevance to Eating of Social Identities Used in the Pilot Study

Type of id	M (SD)
Student identity	
Importance	4.97 (1.56)
Relevance to eating	4.43 (1.79)
Female identity	
Importance	6.27 (1.36)
Relevance to eating	4.67 (1.70)
identity	
Importance	4.93 (2.03)
Relevance to eating	4.07 (1.85)
Family identity	
Importance	6.23 (1.25)
Relevance to eating	5.24 (1.64)
Religious identity	
Importance	4.40 (2.45)
Relevance to eating	2.57 (2.01)
Sport-team identity	
Importance	3.97 (1.87)
Relevance to eating	3.80 (1.86)
Student societies identity	
Importance	2.72 (2.00)
Relevance to eating	1.90 (1.45)

The results of Study 1 suggested that increasing the saliency of female and family identity increases healthy eating intentions, but not healthy food choice. It is not clear whether a licensing effect caused this intention-behaviour gap. Study 2 was conducted to replicate the impact of increased female identity saliency on healthy eating intentions, and to test the hypothesis that measuring food choice after the measurement of

healthy eating intentions leads to a licensing effect, and thus less healthy food choices. To test this hypothesis, Study 2 manipulated the timing of healthy eating intentions measurement: they were measured either before or after the food choice. Besides, including measures of attitudes, perceived behavioural control and subjective norm regarding healthy eating allowed for examining whether female identity is an independent predictor of healthy eating intentions and behaviour, after controlling for variables suggested by the theory of planned behaviour [7].

The findings of Study 2 demonstrated a significant association between female identification and healthy eating intentions: those participants who strongly identified as female were also more likely to express healthy eating intentions. However, this association was not found for healthy food choice: participants who strongly identified as female were not more likely to choose a healthy trail bar over a less healthy chocolate bar. Importantly, the difference between the impact on intention and impact on behaviour was not caused by a licensing effect. The participants who expressed their healthy eating intentions before choosing a snack were, in fact, more likely to pick a healthy snack than participants who expressed their intentions only after choosing. The results of this study provide an interesting new perspective on the associations between female identification, healthy eating intentions, and food choice. Healthy eating intentions were, by the theory of planned behaviour, predicted by attitude, perceived behavioural control and subjective norm [8].

CONCLUSION

The two studies provide preliminary evidence that social identity saliency can significantly influence healthy eating intentions. However, they also suggest that the positive effect of female or family identity saliency on intentions does not necessarily carry on to behaviour [9].

The findings presented in this research also highlight a few potential dangers that should be taken into account when researching and applying the social identity perspective on healthy eating. Most importantly, in the context of female identity, healthy food is often associated with dieting, and any appeals to the female character within healthy eating promotion may lead to an increase in unhealthy dieting practices. Also, the presence of vicarious licensing should be taken into account when creating interventions that appeal to social norms or social images. According to

the research presented in this thesis, high identifiers may react to the information about healthy behaviour of their in-group members by giving themselves a licence to behave in less healthy ways [10].

Across studies and several experimental paradigms, data in this research suggest that group identification and salient social identity influence people's healthy eating intentions and behaviours.

Although the pattern of results was complex and not always consistent. The evidence presented here certainly warrants further investigation into when and why increasing the salience of particular social identities (for example, female identity) causes people to self-report that they intend to eat healthier foods. These findings may then usefully be applied in healthy eating promotion, where appeals to social identity could increase the effectiveness of healthy eating campaigns [11].

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