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AUTOMATING PRO-HEALTH BEHAVIORS AMONG WORKERS A LARGE CORPORATIONS USING THE SERVICES OF DIET CATERING

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Abstract: Proper nutrition along with physical activity promote health and well-being, affect the mental balance of a person, his perception of reality and interpersonal relationships. Automating pro-health behaviors affects behaviors that do not require large amounts of psychoenergetic resources, thus accumulating energy for other life processes. The aim of this article is to analyze the eating behavior and physical activity among employees of corporations with diet based on an externally supplied box diet which is make on their own nutritional choices (they use diet catering meals). The empirical study covered clients of enterprises offering dietary catering. An individual in-depth interview was used as a qualitative research technique. The conclusion to be drawn from the conducted empirical study is that people using externally supplied box diets do not develop healthy eating habits. In the periods when they eat independently, in most cases they do not pay attention to the health, regularity and caloric content of the consumed meals.
Keywords: habit, nutrition, healthy lifestyle, dietary catering,

1. EATING HABITS AND THE LIFESTYLE OF AN INDIVIDUAL

The degree of development of catering services is one of the indicators of social and economic development and the accompanying transformations of society (Gheribi, 2013; Zabrocki, 2018; Dąbrowska, 2008). The dynamic development of gastronomy is reflected, inter alia, in the growing number of enterprises and increased revenues from running a business (which is confirmed by data from the Central Statistical Office). The growing importance of eating outsite the home is a correlation of three interpenetrating conditions concerning: the consumer, food and the situation. In the recent past, the food consumption model localized consumption within the household and within the family. Currently, enterprises in the catering sector, to an increasing extend, meet their nutritional needs to an increasing extent, offering their services at

any place and time chosen by customer (Kowrygo and Stangierska, 2012). The key factor is the changing family model and a greater percentage of working time (Piekut and Valentukevičienė, 2019).

Lifestyle changes are manifested in all spheres of human activity. The concept of lifestyle functions in the sociological, medical and psychological nomenclature, correlating with the product of culture, and a clear relationship with social belonging is indicated (Woźniak et al., 2015). A lifestyle is defined as “characteristic for a certain human community, a characteristic way of being in society; a set of everyday behaviors of members of that community, enabling their social identification ”(Siciński, 1978). A person's lifestyle largely affects on their health. Health behaviors and the extend of their changes, correlate with age, gender, personal quantities, health status, played social roles and changing environmental factors. Health-promoting behaviors should be shaped in each period of human life. Taking them up depends to a large extent on the living environment that shapes and preserves the behavior patterns of adolescents (Łaszek et al., 2011). The determining period is childhood. Life experiences of children and adolescents and the way they undertake their developmental tasks have a significant impact on the creation of health resources against the background of the entire existence (Kelly et al., 2011; Summerbell et al., 2003). Improper lifestyle, including improper eating habits and minimal physical activity, may lead to the automation of inappropriate behavior and the consolidation of destructive habits. Research indicates that taste preferences and human nutritional acceptance models are largely learned (Birch, 2014). The growing awareness of human responsibility for their own health, in a way, promoted the concept of a healthy lifestyle.

A society's food choices are the result of a variety of processes. They depend, inter alia, on biological and social factors. Their modeling may result from the preferences for eating in accordance with social norms, create a sense of security and belonging (Herman, 2019). The changing needs of consumers influence the adaptation of gastronomy to them through the continuous development of new trends (Bilska et al., 2014). The currently emerging nutritional trends are nutrition based on pro-health and local products and a specific type of diet (vegetarian, vegan, etc.). The use of various types of elimination diets, consumption of products that may negatively affect both the health and appearance are part of the current global trends related to deconsumption (Patrzałek, 2015). Consumers are more and more aware, and their choices are based on the worldview, health level or are dictated by an insufficient amount of free time (Dejnaka, 2019). The human body, regardless the age, sex and place of residence, requires regular provides of an adequate supply of energy and nutrients (Broniecka and Wyka, 2012), taking into account individual health, genetic and cultural specificities (Gawęcki and Roszkowski 2009). Eating habits are one of the key issues of physical and mental health (Sęk, 2002). There are two styles of cognitive control that affect view of the world and making decision. They contain three concepts: impulsivity, reflectivity, and location of control. There are external-control people, often suggestible, and internal-control people characterized by a great sense of agency (Rowiecki and Kulmatycki; 2017; Walczak, 2010). Making decisions on food choices can be driven by impulsive or controlled paths of reasoning. The first of these systems relates to the quick and economical way of thinking with the automatic people

react resulting from automatic associations that are activated when a person encounters an object / product. The contrast system rely rather on a more extensive and controlled reasoning strategy (Demartini et al., 2019).

2. MODELING EATING HABITS

Man is characterized by the duality of nature. On the one hand, he is a conscious being who can aims of expressing his values , so he can to pursue them. On the other hand, he is characterized by unconsciousness and automatic reactions resulting from the environmental stimuli. Behaviors can be purposeful (predicting the consequences of behavior) or can be connected with habits. Eating habit is one of the components of the diet, which depends on age, lifestyle, socioeconomic status, origin, education, media. It is characterized by an automatic, patterned activity in the process of reiferations of the same actions, according to a previously learned pattern (Conner and Abraham, 2001). The frequency with which the behavior was performed in the past explains the variability of subsequent later behavior independent of intentions (Ajzen, 2002; Brug et al., 2006; Hagger et al., 2001). Habitual behavior is believed to be automatically triggered by environment instead of conscious evaluation of possible outcomes, other people's opinions, and confidence in the possibility of a certain behavior (Aarts et al.,1997). Most eating behavior is performed repeatedly in the longer term, which is considered an important point of habits (Verplanken and Orbell, 2003). Moreover, the conclusion is that habit is a mental construct that includes unawareness, difficulty of control, mental performance, and repeatability (Verplanken and Orbell, 2003) Habitual behaviors are automatically activated through specific signals, while new or intermittent sporadic behaviors may result from more aware of decision-making processes (Rutter and Quine, 1994).

The nutrition model has a determining impact on the body functions. Being on a diet for a long time (related to sacrifices and discomfort) may not lead to automatizations, but to problems and frustration. Automatization, defined as effective self-control (requiring resources), leads to the development of habits, so behaviors that do not require large amounts of psychoenergetic resources (Bargh, 1994) (Fig 1). To generate a habit, you need a correlation of three elements:

- the change must be characterized by pleasure or neutrality; feeling pleasure is after all inscribed in human character - by nature man aspires to realization their needs and desires
-repeatability of behaviors leading to their automation;
-habit is shaped by gratification.

A habit is an automatic reaction to a specific situation. The habit is acquisition process divided into four stages: signal - desire - reaction - reward. This four-stage mechanism, which is the point of the habit, is carried out , every time in the same sequence. The signal leads the individual to certain behave- in order to achieve the award. The individual constantly analyzes the internal and external environment looking for signals that suggest of gratifications. Desire is the determinant of a habit, being a motivator. A reaction is an action or thought that depends on the motivation and internal blokade associated with the certain behavior. Behavior is a predictor for receiving an award (Clear, 2019). Townsend and Bever indicate that most everyday behavior is performed through habitual behavior (Bever and Townsend, 2001).

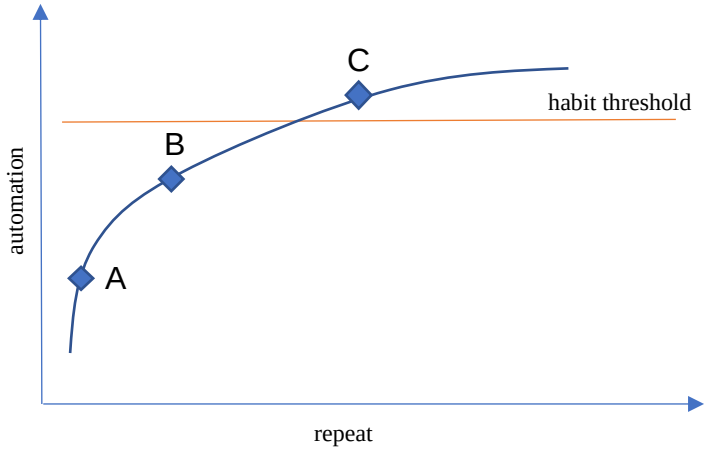

Fig. 1. The threshold of the habit
A- Behavior requires a lot of work and concentration;
B- Behavior requires conscious attention;
C- Behavior becomes automatic.
Source: (Lally et al., 2010)

Planning activities are considered very valuable in the process of changing health behavior. They fill the vaccum between behavioral intentions and health behaviors (Sniehotta et al., 2005). Planning is a strategy of self-regulation, a mental simulation of being responses for certain situations in future. There are two types of planning activities: real planning activities and the way how to deal with them. Plans are subordinated to a certain intention and serve its purpose (Gollwitzer, 1999). Action planning can solve problems related to the consistency of future behavior because perception and mnemonic mechanisms last even when the realization of the behavioral intention has been postponed without conscious self-control. Coping planning aims to help a person overcome obstacles and deal with difficulties by prediction of personal risk.

3. DIETARY CATERING MARKET IN POLAND

The Polish dietary catering market is developing dynamically. It has evolved and changed over the past year. Its value is estimated at over PLN billion, and the number of enterprises exceeded 520. The dynamics of the development of the dietary catering service branch is still high, but compared to 2018, this trend has slowed down (Dietly, 2019). Enterprises offering dietetic catering, provide services consisting in delivering a set of meals, personalized in terms of quantity, calorific value and type of diet to the address indicated by the client. By definition, meals are prepared by a team of chefs on the basis of a properly balanced menu in accordance with the requirements of the Institute of Food and Drug Administration and FAO / WHO, developed by dietitians taking into account the balanced diet.

4. METHODICAL ASPECTS OF EMPIRICAL RESEARCH AND RESEARCH RESULTS

The own research was conducted among clients of enterprises offering dietary catering. The group of respondents was selected on purpose and was network-based. An in-depth individual interview was used as a qualitative research technique. The obtained results were analyzed statistically. The aim of this part of the empirical study was to try to outline the eating behavior among customers who eat daily based on a box diet on days / periods free from dietary catering orders. The vast majority of people ordering dietary catering place orders on working days (ie Monday-Friday), and on weekends eating on their own. The study aims to identify the diet of corporations while they are not consuming the box diet.

During the working week (Monday to Friday), respondents use an externally delivered box diet. All of them are convinced that they eat in a balanced way, providing the right amount of calories and fluids during the day. They declare the regularity of their meals, which does not require a lot of time to prepare meals, because the offered dietary catering sets require only heating. Only few people indicate that they eat between meals or in the evening. The vast majority of clients indicate regular physical activity at least 2-3 times a week.

The conducted study was of a panel nature. The first part was attended by 166 dietary catering customers who declared that they were starting a box diet (they had not ordered diet catering meals before). The study took place seven days after starting the consumption of the box diet and concerned weekend days. In the second part, a group of 111 people agreed to the study. People who systematically consumed a box diet for 5 days a week for the next 26 weeks were qualified for this round.

The results are presented in the form of frequency distributions, giving the number of responses to the appropriate categories from a five-point scale and the corresponding percentage score. Additionally, an arithmetic mean was calculated for each variable. The analysis of the significance of the differences between the measurements was performed using the Wilcoxon pairwise test. The results of calculations were considered statistically significant with the test probability value $p \leq 0.05$. The Statistica 10.0 package by Statsoft Polska was used for the analyzes

The group of respondents comprised 53% of women and 46% of men. The average age of the respondents was 36 years. The conducted analysis gives grounds to accept the possibility of existence of a statistically significant difference between the assessments of the examined elements, i.e. regularity of eating meals, health of selected products, lack of snacking between meals, adequate hydration, calorific value of the appropriate daily requirement and physical activity (minimally moderate physical effort 2-3 times a week) expressed in both measurements by people beeing on the box diet. The Wilcoxon test result is statistically significant ($p < 0.001$), and comparsion of percentage distributions and arithmetic means indicates a decrease in the intensity of regularity in the second measurement, i.e. after the period of 26 weeks of using dietary catering, the only exception is the factor relating to snacking between meals, where the intensity is indicated in relation to the examined feature.

Table 1
Data analysis results

variable	rating	Measurement I			Measurement II			p
		distribution of grades		average	distribution of grades		average	
		N	%		N	%		
The regularity of eating meals	1	0	0.00	4.77	9	8.11	3.36	<0.001
	2	0	0.00		24	21.62		
	3	0	0.00		23	20.72		
	4	25	22.52		28	25.23		
	5	86	77.48		27	24.32		
Number of meals during the day	1	0	0.00	4.25	0	0.00	3.86	0.005
	2	1	0.90		11	9.91		
	3	31	27.93		30	27.03		
	4	18	16.22		33	29.73		
	5	61	54.95		37	33.33		
The health of the selected products	1	0	0.00	4.84	13	11.71	3.35	<0.001
	2	0	0.00		16	14.41		
	3	1	0.90		28	25.23		
	4	16	14.41		27	24.32		
	5	94	84.68		27	24.32		
Snacking between meals	1	97	87.39	1.21	42	37.84	2.32	<0.001
	2	6	5.41		26	23.42		
	3	7	6.31		19	17.12		
	4	1	0.90		14	12.61		
	5	0	0.00		10	9.01		
Drinking water	1	0	0.00	4.80	0	0.00	4.23	<0.001
	2	0	0.00		4	3.60		
	3	2	1.80		17	15.32		
	4	18	16.22		40	36.04		
	5	91	81.98		50	45.05		
Daily caloric value	1	0	0.00	4.26	19	17.12	2.81	<0.001
	2	1	0.90		27	24.32		
	3	10	9.01		28	25.23		
	4	59	53.15		30	27.03		
	5	41	36.94		7	6.31		
Physical activity	1	4	3.60	3.90	12	10.81	3.34	0.001
	2	7	6.31		22	19.82		
	3	29	26.13		22	19.82		
	4	27	24.32		26	23.42		
	5	44	39.64		29	26.13		

Source: author's own study based on the empirical research

5. CONCLUSION

Changing eating habits is a long process that requires large psychoenergetic capitals. The conclusion to be drawn from the conducted empirical study is that people using

externally supplied box diets do not develop healthy eating habits. In the periods when they eat independently, in most cases they do not pay attention to the healthiness, regularity and amount of calories conteined in consumed food. The study conducted after the first week of eating through box diets showed a very high motivation to change eating behavior and sacrifice for proper nutrition. On the other hand, the data from the second part of the study, carried out after 26 weeks, indicate the failure to control proper menu on weekends, despite the continued consumption of dietary catering on working days. The respondents who eat fit catering during the week do not pay attention to their nutrition in periods when they independently decide about the type of meals, their regularity, health and calorific value. The reasons for this require further research.

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