

## Cooking Methods, Social Relations and Situations Related to Food as a Part of Nutrition Education within Family

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**Abstract:** Nutrition education provided within family can be significantly affected by tradition, including the various elements of cultural heritage such as traditional food, methods of its preparation, and finally eating habits. The aim of the study is to investigate the contemporary family's commitment to cooking at home, the importance of food in social relations and during social events as one of the factors of family socialization. A questionnaire survey was carried out within the Polish sample in September 2012. Selected statements from the Food-Related Lifestyle Scale were included in the data analysis. On the base of factor analysis 7 factors were driven: Looking for new ways; Interest in cooking; Social events and relationships; Convenience; Partnership in cooking and shopping; Family involvement; and Woman's tasks. Participants were aware of the influence of food on the culture of everyday life, although the role of food was considered to be moderate. Furthermore, the socialization functions of the family are realized within the process of fulfilling the nutritional needs, especially in regard to children. The results of the study have confirmed the change in social roles in the family performed by men and women. Although there is an expectation of partnership both in purchasing food and preparing meals, a confidence about the responsibility of women to provide food for family still exists. The changes in the food culture are quite slow, both in relation to methods of food preparation and type of food consumed. Therefore, traditional patterns are preferred over innovations. It can be concluded that cultural heritage is heavily involved in nutrition education provided within the family. In order to avoid conflict, non-family education should also incorporate the elements of tradition.

**Keywords:** nutrition education, family, cooking methods, social relations, adult education.

### Introduction

The nutrition education provided within family can be significantly affected by tradition, including the various elements of cultural heritage such as traditional food, traditional methods of its preparation, and finally eating habits. For foods to be considered traditional they need to be frequently consumed in the community, passed from generation to generation and prepared according to old recipes, possibly with a minor contribution of modern processing methods. The impact of culture is the reason for the existence of separate ethnic cuisines, including national cuisine, regional cuisine, and even family cuisine.

The food culture is to a high extent determined by the natural resources of flora and fauna, climate and the presence of water reservoirs. The process of its formation is also influenced by religion and both historical and social changes. Other factors that have influence on the development of food culture are wars, business contacts or political relations with other nations. The latter factors can be classified as enriching for the local food culture.

Nowadays the impact of the cultural heritage on food sphere seems to be equally important as it was in the past. Food and dietary patterns are involved in socialization process within family. Despite high availability of food derived from different geographic areas, and presence of food that is a product of application of advanced technologies in its production, traditional foods and patterns of its consumption continue to be used in order to meet a variety of needs, including the psychological and social needs (Fieldhouse, 1995, 79).

Consuming meals in a group is an important element of culture and a socialization tool in many societies. Eating a meal together gives family members a sense of security and belonging to the family or a wider social group. Dining together promotes establishment and consolidation of contacts with other members of a social group. Furthermore, food products can be used to obtain or to confirm the social position of individuals or communities.

The use of food and practices associated with food in meeting the social needs is conducive to creating a sense of social identity and community, and it also positively influences communication. In relation to the traditional foods, identity is manifested in the feeling of belonging to a group, which explains why

the traditional food is eagerly consumed. For the development of an individual it is essential to have a sense of being connected with other members of the community. Hence the cultural heritage is of the utmost importance, it transmits the tradition from generation to generation. The sense of identity justifies the existence of an individual, provides security and creates a bond of sympathy (Zimbardo, Ruch, 1979, 542). Each social group strives to preserve its autonomy and to avoid being identified with another group, e.g. young people do not want to be identified with adults. For example, the young people demonstrate preference for foods served in fast-food restaurants, while adults prefer to eat their meals in restaurants with a higher standard (Finkelstein, 1989, 70).

Communication in the food sphere is realized through symbolic meanings attached to many food products or practices associated with food. From the cultural point of view, every food product is saturated with meaning (Fieldhouse, 1995, 78). Food has been used by humans in terms of the symbol of status and prestige for a long time. In each society the place where the meal is consumed and the people with whom the meal is consumed attest the prestige of a given individual. Some meals are eaten in the family circle, others offered solely to guests. Preparation and serving of food is dependent on age and gender, as well as the prestige of the guest.

In the past, people consumed solely the food that was available in their environment and that was the same type of food that was eaten by their ancestors. Despite significant changes in social life, the impact of cultural heritage on the dietary pattern is also important nowadays. Although people have access to food from other countries and to highly processed food, the traditional food and its consumption patterns still determine a substantial number of our food choices and meet a variety of human needs. Cultural diversity, materialized among others in the existence of different religion norms and food habits, emphasizes the individuality of each society. The distinctiveness of society is also determined by regional and national cuisines, which are culturally defined by regulations regarding the manner of preparing food, organizing the meal and ones determining the scope of edible food.

The lifestyles of people coming from the same culture are not necessarily the same. A lifestyle can either relate to integration in a certain larger social group or be a tool for self-expression for an individual. It can be defined as the relationship between individual's personality and the surroundings (Szakaly et al., 2012, 407). One of the models of lifestyle including food consumption behaviours is K.G. Grunert's food-related lifestyle (Bruns, Grunert, 1995, 476). According to this model the attributes of lifestyle are situated between the values and the product categories. The Food-Related Lifestyle (FRL) concept has been used to measure people's attitudes towards food. FRL attempts to distinguish people due to the role that food plays in their lives, linking generic food-related attitudes to the achievement of desired consequences. Lifestyle, as defined in the FRL concept, mediates between consumers' personal values and situation-specific product perceptions and behaviours (Grunert, 2006, 150). This model includes such elements as types of food shopping behaviours, meal preparation methods, purchasing methods and consumption situations. These attributes of food-related lifestyle describe the food culture. That is why some factors of this lifestyle model were used as theoretical background of this study.

The aim of the study is to investigate the contemporary family commitment to cooking at home, the importance of food in social relations and during social events as a part of family socialization.

## **Methodology**

The survey for this study was carried out in September 2012. The sample consisted of 1000 participants (47.8 % women and 52.2 % men), of age ranging between 18 and 75 years. The characteristics of study sample are presented in Table 1.

The data regarding some aspects of food sphere and socioeconomic status were collected using the close-questionnaire involving Food Related Lifestyle scale. The study participants were asked to indicate to what extent they agreed with each statement by choosing one from 7 answers – from 'strongly disagree' (1 point) to 'strongly agree' (7 points). Only selected statements from the Food-Related Lifestyle Scale were analysed in order to prepare this paper. There were statements listed in three groups of FRL Scale "Cooking methods" (items described as "Interest in cooking", "Looking for new ways", "Convenience", "Whole family involvement", "Planning", and "Woman's tasks"); "Consumption situation" (item described as "Social event"); "Purchasing motives" (item described as "Social relationships"). Apart from the selected measures of the Food-Related Lifestyle Scale referring to

cooking methods, social relations and social events, questions on socio-demographic characteristics (gender, age, education, and place of residence) were included in the questionnaire.

Table 1

**Characteristics of study sample (%)**

Sociodemographic characteristics		Total	
		N*	[%]
Total population		1000	100.0
Gender	Female	478	47.8
	Male	522	52.2
Place of residence	Rural area	396	37.8
	Town with less than 20 000 citizens	243	8.8
	Town with 20 000 – 99 000 citizens	189	24.7
	Town with more than 100 000 citizens	172	28.7
Education	Primary	235	23.5
	Vocational	272	27.2
	Secondary	349	34.9
	Academic	144	14.4
Age	25 years old and less	166	16.6
	26-35 years old	203	20.3
	36-45 years old	162	16.2
	46-55 years old	164	16.4
	56-65 years old	155	15.5
	More than 65 years old	150	15.0

\*number of respondents

FRL scores were presented as response rates, means and standard deviations. Comparisons of means within groups based on sociodemographic characteristics have been performed with ANOVA test. The factor analysis was used to separate the main factors on the base of selected FRL statements describing various aspects of cooking methods, social relations and social events. Seven main factors were separated. They explained 58,4 % of the variance. The Cronbach's alpha test was carried out to assess the internal reliability of the factors. The Cronbach's alpha was in the range of 0.547 – 0.736.

## Results and Discussion

The respondents' opinions regarding statements used in the study are shown in the Table 2.

The mean values have indicated that most of statements obtained a neutral opinion of the respondents. Higher means were found regarding the involvement of family members in the work related to the preparation of meals, the need to plan the activities comprised in cooking, the conviction that the responsibility for shopping and cooking should be shared between the husband and the wife, and the fact that consuming a meal together may be a beginning of a conversation. The distribution of extreme opinions expressing approval or disapproval of statements indicated that the study participants were quite diversified.

About 2/5 of the respondents agreed with the fact that a meal consumed together could be a beginning of a conversation and that the responsibility for shopping and preparing meals falls upon both women and men. Relatively few people have confirmed that eating out is a regular part of their dietary habits and that they often get together with friends and enjoy an easy-to-cook dinner, which is confirmed by the research R.Zabrocki and E. Babicz-Zielinska (2003, 267). In the study sample, only about 16 % of people confirmed the use of frozen foods and the use of many mixed ingredients when preparing meals. In contrast, almost 30 % of respondents reported using a lot of ready-to-eat products (Table 2).

A lack of coherence can be noted based on the value of the coefficient  $\alpha$  Cronbach describing the matching quality within the subscales (Table 2). It has shown that not all subscales of FRL Scale accurately represented the family food sphere in the study sample. Thus, all statements that form eight scales presented in Table 2 were used in the factor analysis.

Table 2

**Food Related Lifestyle dimensions included in the study**

FRL subscales and statements	Mean; SD	Opinions*		$\alpha$ Cron- bach
		1 i 2	6 i 7	
<b>1. Interest in cooking (I)</b>				
(I.1) I like to pass fairly adequate amount of time in the kitchen	4.5; 1.6	3.7	29.7	0.195
(I.2) Cooking is an enjoyable task	3.8; 1.8	26.4	19.6	
(I.3) I like to spend a lot of time cooking	4.0; 1.8	23.5	23.5	
<b>2. Looking for new ways (L)</b>				
(L.1) I try to use new recipes	4.3; 1.7	16.6	27.9	0.736
(L.2) I look for various ways to prepare uncommon meals	4.0; 1.8	22.3	23.4	
(L.3) Recipes and articles about food from other national cuisines incite me to experiment in the kitchen	4.2; 1.7	17.8	23.6	
<b>3. Convenience (C)</b>				
(C.1) Frozen foods take up a big part of nutritional products in my family's diet	3.7; 1.6	24.8	16.0	0.653
(C.2) Our family uses a lot of ready-to-eat foods	4.2; 1.8	18.7	28.8	
(C.3) I use many mixed ingredients, e.g. baking ingredients and powdered soups.	3.7; 1.7	26.8	15.7	
<b>4. Family involvement (F)</b>				
(F.1) Kids or other members in the family always help in the kitchen: for instance, they peel the potatoes	4.4; 1.7	17.3	32.4	0.493
(F.2) My family helps in tasks in related to preparing meals, e.g. setting the table and doing the dishes	4.8; 1.6	9.9	36.8	
(F.3) If I really do not want to cook, I may let someone else in the family do it	4.6; 1.6	13.4	30.6	
<b>5. Planning (P)</b>				
(P.1) Whether we go out is often a last-minute decision	4.2; 1.7	18.8	25.8	0.174
(P.2) A plan must be made ahead of cooking	4.8; 1.5	8.9	33.8	
(P.3) I always plan what to eat a few days ahead	3.8; 1.8	28.5	21.0	
<b>6. Woman's tasks (W)</b>				
(W.1) I think the kitchen is a place for a woman	4.2; 1.7	18.3	26.2	0.303
(W.2) It is a woman's responsibility to provide nutritious food and drinks to keep the whole family healthy	4.4; 1.7	16.5	29.5	
(W.3) Nowadays, the responsibility for shopping and cooking should be shared between husbands and wives	5.0; 1.5	7.3	41.1	
<b>7. Social events (SE)</b>				
(SE.1) Eating out is a regular part of our diet habits	3.4; 1.7	25.1	13.2	0.552
(SE.2) We often get together with friends and enjoy dinner that is simple and easy to cook	3.8; 1.7	24.0	17.1	
(SE.3) I like to go to restaurants with my family and friends	4.3; 1.7	15.5	30.0	
<b>8. Social relationships (SR)</b>				
(SR.1) I find it an important part of social life to dine with friends in a restaurant	4.2; 1.7	19.2	26.0	0.458
(SR.2) When I cook for friends, I find us being together as something of an utmost importance	4.3; 1.6	14.0	24.5	
(SR.3) People may have a good chat after dinner	5.0; 1.5	7.2	38.6	

\* opinions from 7-point scale: 1 - strongly disagree; 2 - disagree; 6 - agree; 7 - strongly agree.

SD – standard deviation

As a result of this analysis seven factors were identified after a Varimax rotation (Table 3). As the Kaiser-Meyer-Olkin (KMO) measure was 0.833, the variable set was recognized as suitable. The significance of the Bartlett test was lower than 0.001. The total variance explained by the factors was 58.4 %.

Table 3

## Factors derived from FRL subscales

Factor	Nomination of factor	Total variance		Mean; SD	$\alpha$ Cron- bach
		% of variance	Cumulative %		
1	Looking for new ways (L.1; L.2; L.3)*	19.121	19.121	4.18; 1.39	0.736
2	Interest in cooking (I.2; I.3)*	12.925	32.046	4.22; 1.22	0.650
3	Social events and relationships (SE.1; SE.2; SR.1)*	6.210	38.256	3.82; 1.26	0.587
4	Convenience (C.1; C.2)*	6.077	44.333	3.98; 1.43	0.590
5	Partnership in cooking and shopping (W.3)*	4.981	49.314	5.0; 1.15	-
6	Family involvement (F.1; F.2)*	4.689	54.003	4.63; 1.45	0.640
7	Woman's tasks (W.1; W.2)*	4.391	58.394	4.32; 1.43	0.547

\*symbols incorporated in Table 2

SD – standard deviation

According to the results of factor analysis, *looking for new ways* was the main stimulus for consumers' behaviours in the food sphere. This factor has expressed the attitude orientated towards change in the food sphere, which on one hand can mean abandoning the traditional practices, and on the other hand, reintroducing what was characteristic for the past. The *Interest in cooking* as the next factor has explained about 12 % of variance. Factor 3 named as the *Social events and relationships* includes statements concerning eating out as a habit, getting together with friends and enjoying dinner, and dining with friends in restaurant as important part of social life. Factor 4 *Convenience* refers to the amount of frozen foods and ready-to-eat foods consumed by the family. Factor 5 was prioritized by those who value *Partnership in cooking and shopping*. Those who emphasized the importance of factor 6, valued *Family involvement* in preparing meals. Factor 7 *Woman's tasks* was prioritized by those who emphasized women's responsibility for food and kitchen.

The interest in looking for new ways in preparation of food was moderate, as evidenced by the mean value which corresponds to the rating "neither agree nor disagree" (Table 4).

Table 4

Respondents' opinions on factors according to gender (ANOVA,  $p < 0.05$ )

Factor	Total	Gender		$p^{**}$
		Female	Male	
Looking for new ways	4.18; 1.39*	4.43; 1.33	3.97; 1.41	<0.001
Interest in cooking	4.22; 1.22	4.43; 1.17	4.02; 1.22	<0.001
Family involvement	4.63; 1.45	4.75; 1.44	4.52; 1.45	0.013

\* Mean based on a 7-point scale (1 - strongly disagree; 7 - strongly agree); standard deviation

\*\* level of significance

More than one fourth of study sample (27.9 %) reported that they liked to use the new recipes when preparing meals. Slightly less than one fourth of respondents reported searching for recipes for uncommon meals, and the same number of respondents reported the use of recipes for traditional dishes (Table 2). The search for recipes for previously unknown foods may therefore concern searching for traditional food just as well as for recipes deriving from other cultures. Women were characterized by a significantly higher interest in the new methods of food preparation in comparison to men (Table 4).

A greater interest in looking for new ways involving the use of new recipes was characteristic for respondents living in the cities and small towns. Relatively lowest interest in looking for new ways was found among the rural population, which may indicate a greater importance attributed to the traditional ways of preparing food (Table 5).

Table 5

**Respondents' opinions on factors according to place of residence (ANOVA, p<0.05)**

Factor	Total	Place of residence				P**
		Rural	Town <20 000	Town 20-100000	City >100 000	
Looking for new ways	4.18;1.39	4.06;1.37	4.35; 1.43	4.12;1.44	4.34; 1.30	0.026
Social events and relationships	3.82; 1.26	3.79; 1.25	4.04; 1.30	3.77;1.34	3.59; 1.10	0.004
Partnership in cooking and shopping	5.0;1.15	4.90; 1.51	4.94; 1.71	4.94;1.59	5.38; 1.23	0.005
Family involvement	4.63;1.45	4.61; 1.45	4.68; 1.52	4.40;1.51	4.84; 1.25	0.032

\* Mean based on a 7-point scale (1 - strongly disagree; 7 - strongly agree); standard deviation

\*\* level of significance

Lack of interest in cooking was declared by about one fourth of the respondents, although there were more indications related to perceiving cooking as a pleasant activity (Table 2). Similarly, to the factor 'Looking for new ways', the survey results pointed to low interest in cooking, as indicated by the mean slightly higher than 4 which correspond to "neither agree nor disagree." Additionally, women were significantly more interested in cooking than men (Table 4).

The increase of importance of food that allows for shortening the time needed for preparation of meals, so called convenient food is observed in Poland. Using such food is the reason for limitation of traditional food consumed in Polish families, which requires more time for its preparation. In this study about 25 % of participants did not agree that frozen foods take up a big part of food products in their family's diet, while 16 % of respondents said that frozen foods take up a big proportion in their families' meals. Furthermore, about 29 % of respondents reported the use of a lot of ready-to-eat foods (Table. 2). The use of frozen food and ready to eat food was differed accordingly to the respondents' age. A greater use of such foods was found in the group of the oldest respondents and the youngest ones (Table 6).

Table 6

**Respondents' opinions on factors according to age (ANOVA, p<0.05)**

Factor	Total	Age (years)						P**
		18-24	25-34	35-44	45-54	55-64	65 +	
Convenience	3.98; 1.43*	4.23; 1.20	3.79; 1.37	3.84; 1.31	3.97; 1.54	3.93; 1.49	4.20; 1.63	0.015
Partnership in cooking and shopping	5.0; 1.15	4.93; 1.60	5.0; 1.51	5.23; 1.52	5.10; 1.49	4.63; 1.61	5.11; 1.48	0.012

\* Mean based on a 7-point scale (1 - strongly disagree; 7 - strongly agree); standard deviation

\*\* level of significance

*Social events and relationships*, as factor 3, has included three statements: having meals in restaurants as a regular habit, meeting friends for preparing and consuming meals together and the belief that eating in restaurants constitutes an important part of social life. The mean value for this factor is lower than 4, indicating a slight disagreement with these statements. Mean value was the highest in urban areas with up to 20 thousand residents, and the lowest among people living in the cities (Table 5). This result is difficult to explain due to the larger involvement of catering services in meeting the nutritional needs of people representing the metropolitan environment. In the literature, it has been stated that there is a statistically significant relationship between the level of education and the use of catering services (Zabrocki, Babicz-Zielinska, 2003, 268), which was not confirmed in this study.

The involvement of family members in the preparation of food is described by two factors, namely the *Partnership in cooking and shopping* and *Woman's tasks*. The total of two factors explains the 9.4 % of the variance. According to the opinions of the respondents the responsibility for shopping and cooking should be shared between husbands and wives (mean value 5.0). Simultaneously, it was indicated that the confidence about the responsibility of women to provide food for family (mean value 4.32) (Table 3). The age of people who were convinced about the importance of partnership in cooking and shopping ranged between 35 and 44 years. Respondents aged 55-64 years old were the least convinced about it (Table 6).

In addition, partnership in cooking and shopping was more important to people living in cities of over 100 thousand citizens than to other groups (Table 5), and to people with higher education (Table 7).

Table 7

**Respondents' opinions on factors according to education (ANOVA,  $p < 0.05$ )**

Factor	Total	Education				p**
		primary	vocational	secondary	higher	
Partnership in cooking and shopping	5.0; 1.15*	4.47; 1.36	4.25; 1.52	4.16; 1.41	4.60; 1.38	0.004

\* Mean based on a 7-point scale (1 - strongly disagree; 7 - strongly agree); standard deviation

\*\* level of significance

A relatively low use of the meals offered by gastronomy services has indicated a large commitment of time to preparation of meals at home. In the past, most of the work related to the preparation of meals was done by women. With the increase of women's work activity changes in the organization of nutrition at home could be observed. At the same time the number of dining establishments available at workplace and education facilities increased. Hence the question is how these changes affect the organization of work related to the preparation of meals at home and how many household members, other than the wife, are involved in preparing meals.

The results of the survey indicate that in about one thirds of families the kids or other members of the family always help in the kitchen. Less than one fifth of participants did not agree with this statement. Even more than one thirds of the population agreed with the statement "My family will help in doing things in relation to meals, e.g. setting the table and making dishes". The involvement of household members in the work related to the preparation of meals in these families creates conditions for the process of socialization. Nutritional knowledge, values that shape the personality of individual, attitudes, moral and social beliefs and behavior patterns can be transmitted during the collaborative work when preparing food in the family (Storey et al., 2003, 492; Lytle et al., 2003, 172). Among the components of culture transmitted during the process of socialization there are also dietary habits. The children can learn by imitating behavior of the others but also under the influence of a system of rewards and penalties (Wardle et al., 2003, 346). The experiences connected food and nutrition acquired in the family home determines the behavior of adults to a great extent (Cusatis et al., 2000, 202).

## Conclusions

Based on the results of the study carried out with the use of food-related lifestyle questionnaire it can be concluded that participants were aware of the influence of food on creating a culture of everyday life, although the role of food was considered to be moderate. It was also indicated that integration of the family can be done by the involvement of the family members in the tasks related to the preparation of food. Furthermore, the socialization functions of the family are implemented within the process of fulfilling the nutritional needs of the family members, especially in regard to children. Time spent not only in the family circle, but also with people from outside the family circle and social relations accompanying eating meals is important for human and for cultural transmission.

The results of the study have confirmed the change in social roles in the family performed by men and women. First of all, it should be noted that there is an expectation of partnership in the implementation of nutritional functions, both in purchasing and preparing meals, especially in the age group 35-44 years, among the urban population of cities with over 100 thousand residents and among people with higher education. At the same time woman is still seen as the person taking care of the food sphere.

Changes in the food culture can be described as quite slow, both in relation to methods of food preparation and type of food consumed. Engagement in cooking is still viewed as a pleasant activity. However, traditional patterns are preferred over innovations, as evidenced by the relatively low interest in the search for new recipes from the cuisines other than national or traditional Polish cuisine. Women are more active in this area compared with men; furthermore, rural environment appears to be more traditional than the urban area. Food ready for consumption is more popular as an ingredient in meals consumed at home than frozen food and food in the form of concentrates, although the scale of the phenomenon is not large.



Eating in a group wider than the family, especially eating out, is an important part of social life according to the opinion of the respondents. The traditional formula for social gatherings or inviting friends and relatives in order to have a meal together at home is still used, as evidenced by the opinions on the low importance of restaurants for social life.

It can be concluded that cultural heritage is heavily involved in nutrition education provided within the family. In order to avoid conflict, non-family education should also incorporate the elements of tradition.

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