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## **FOOD QUALITY AND SAFETY AS IMPORTANT ASPECTS OF QUALITY OF LIFE**

**Abstract:** *The quality and safety of food is a key issue in the consumer everyday life. Food safety directly influences health and respective quality of life of the consumer. Hence, food risk management has been the subject of numerous studies and extensive cooperation between different countries, research institutions involved in risk management. It can be said that food quality also influences the consumer life, taking into account hedonistic satisfaction from the consumption of high quality food. So far, there has been no research linking food consumption with the quality of life, although numerous studies and reviews can be found as regards the quality of life in general and in specific contexts, such as health, socio-economic, etc. The research linking food consumption with the quality of life is related mainly to food allergy, reporting surveys conducted among the consumers with various food allergies. The present paper aims to review the existing knowledge on the consumer perceptions of food safety and quality, and links it with knowledge on the quality of life, in order to identify potential for future research.*

**Keywords:** *food quality, food safety, quality of life*

### **1. INTRODUCTION**

Food quality and safety are the most important characteristics of food. Food safety is regulated by national and international law. Food market actors (excluding primary production) are obliged to implement and maintain GHP (Good Hygienic Practice), GMP (Good Manufacturing Practice) and HACCP (Hazard Analysis and Critical Control Point). Food that is offered to the consumer has to be safe. Food quality and safety directly influence consumers health and well-being. Food products are the products widely consumed by major number of people, and are a part of our lives from the start to the end. That's why the aspects of quality and safety of food products are very important. However, it should be mentioned that food can also be the source of hazards/threats. These hazards/threats can be present in the food in a natural way (be a part of the food product) or can be put into the food product from outside. Nowadays food allergies are very popular – many people suffer from food allergies. Many consumers have food allergies for various food ingredients. Food

plays an important aspect in perceiving the quality of life. Food is the source of nutritional values, can be the sign of the social status, is the source of pleasure. Availability, quality and safety of food are directly connected with the quality of life. Quality of life is a multi-faceted concept, consisting of many quality-of-life domains, including quality and food safety. Quality and food safety also lead to a market success, which translates into the comfort of life. According to J. Galbraith [1], the ultimate goal of human economic activity is neither productivity nor economic efficiency, but to create conditions for a better, more dignified life.

### **2. QUALITY AND SAFETY OF FOOD**

The quality of food can be defined by the set of consumer requirements. These requirements concern [2]:

1. Safety – lack of hazards.
2. Food product – characteristics of food products that are regulated by law and consumers requirements and expectations.
3. Nutritional value.
4. Sensory characteristics.

5. Conditions of food production and food origin.
6. Ethical aspects.
7. Food safety and quality assurance – having certificates, the implementations of the principles of GHP/GMP, HACCP, ISO 22000, traceability.
8. Packing/package methods.
9. Product on the market – the availability of the product, the proper quantity, in a right place, and by the right price.

Among the above requirements two groups can be identified. The first group is the requirements toward the product as the food product which place the consumers in the position of „*homo edens*” – eating man – consumer, and the requirements are the following:

- food safety requirements,
- nutritional value,
- sensory characteristics,
- the conditions of food production and food origin,
- meeting legal requirements and ethical requirements.

The second group is the requirements toward product as the product on the market, the object of the trade, which place the consumers in the position of „*homo oeconomicus*”- economical man, rational man – client, and the requirements are the following:

- requirements toward the package,
- product marks,
- quality certificates,
- traceability,
- availability, convenience of the product,
- price.

According to the results of the survey research conducted in Poland among 712 consumers [3] it can be said that the indicators of high quality of food by consumers are:

- lack of food additives - 52,5% of answers,
- trade mark - 50,7% of answers,
- sensory acceptance - 39,6% of answers,
- country of origin Poland (national) - 31,7% of answers,
- information about the production under the requirements of HACCP (Hazard Analysis and Critical Control Point) , ISO 22000 - 31% of answers,

- high price - 23,2% of answers,
- attractive package - 8,7% of answers.

Koerber et al. [4] stand out from the long-known aspects of quality of food such as sensory, health and nutritional, functional and economic value, also such aspects of quality as: psychological, ecological, sociocultural, economic and political values. Psychological value means the happiness that comes from food eating, imaging, dreaming, expecting the food. As far as it comes to the ecological value – by the conscious decision of choosing food and its preparation for consumption, man can form the safe environment. Sociocultural value of food means:

- consumption habits,
- nutritional patterns,
- religious aspects,
- food prestige,
- food culture.

The components of the economical food quality are:

- the process of its production in agriculture,
- processing in the food and household industries,
- conditions related to its sale.

The political value is related to the export and import of food and feed, subsidies to agricultural products. However, it is not possible to talk about food quality without reminding of its safety. Food safety is its most important feature. The food chain actors, in order to ensure quality and safety, are obliged to introduce mandatory HACCP, GHP and GMP systems. They also can use optional standards such as IFS, BRC, ISO 22000.

### 3. QUALITY OF LIFE

In the literature of the subject there are many definitions of quality of life. Since the 1980s, there has been a great deal of respect for aspects of quality of life. According to J. Trzebiatowski [5] the beginning of the interest in quality of life can be seen already in ancient times. According to Hippocrates, happy life was expressed through inner balance. For Aristotle, the guarantee of happiness was to be the pursuit of the highest attainable good.

In the 1950s, the concept of quality of life in economics, medicine, sociology, psychology

was increasingly used. In the 1960s and 1970s, quality of life was measured in quantitative terms as the level of satisfaction (the level of meeting needs). The consumption of various goods has been studied to ensure that the basic needs of the family are met.

At the turn of the 1970s and 1980s it became increasingly common to use the term of quality of life in sociological and psychological studies. They began to combine the quality of life with such categories as lifestyle, sense of well-being, satisfaction, ability to meet needs. At the same time the concept of quality of life has become increasingly popular in the medical sciences as a perception of the quality of life of people suffering from various diseases. HRQoL (health related quality of life) has been defined for example by Schipper et al. [6]. HRQoL defines a patient's self-assessment of the effects of illness and treatment on its physical, mental and social functioning. The high HRQoL index indicates that the patient, despite the illness, perceives himself as being well functioning in the above mentioned. Ranges, while the low HRQoL index indicates that the patient believes that his or her disease limits these functions.

It can also be considered that for the first time the concept of quality of life has been made public by US President L.N. Johnson in 1964, when he stated that "the great society is concerned not with how much, but with how good — not with the quantity of goods but with the quality of [its members'] lives" [7].

E. Papuč states that one of the first definitions of quality of life was the definition made by Dalkey and Rourke in 1972, where quality of life consists of life satisfaction and happiness [9]. In later definitions, the term quality of life was more broadly understood. For example according to Torrance (1987) [10] quality of life is a broad concept and should capture all aspects of individual existence. Polish researcher De Walden-Gałuszko in the same year formulated the following definition of quality of life: "quality of life is an assessment of one's own situation at a given time, taking into account the established hierarchy of values, or the difference between the real situation of man and his dream" [11].

Also, John Paul II the Pope in the Encyclical *Centesimus Annus*, published May 1, 1991, wrote: "... today the problem lies not only in supplying man with adequate quantities of goods, but also in satisfying the demand for

quality: the quality of goods produced and consumed, quality of services used, quality of the environment and life in general" [12].

Quality of life of a person can be considered in terms of wealth, completeness and satisfaction. Many factors affect this sense of well-being, including good health, a safe environment, social and professional well-being, financial security, spirituality, self-confidence and strong relationships. These factors are interrelated.

Quality of life was defined in 1993 by the World Health Organization (WHO) as the "individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals" [13]. On the basis of this definition, experts from 15 centers in different countries dealing with quality of life constructed and published in 1994 a measure of quality of life - WHOQOL-100 (World Health Organization Quality of Life Instrument) [14]. Based on WHO definition of quality of life, in 1997, Saxena and Orley [15] identified factors that contribute to the quality of individual life: physical health, mental situation, degree of independence, relationships with other people, and the environment in which a person lives. D. Wade [16], a researcher on quality of life in 1996, said: "We all know what quality of life is, but no one can define it. And without this definition measuring the quality of life is not possible".

The authors: Grunert, Dean, Raats, Nielsen, Lumbers, and Food in Later Life Team (2007) [17] encountered problems in defining and measuring the quality of life. Moons et al. [18] reviewed the definition of quality of life taking into account both objective and subjective indicators. It was found that the perception of the quality of human life is influenced by its subjective assessment rather than by physical factors alone. An example of subjective factors is the feeling of happiness, satisfaction from life. Moons et al. also suggests separating health from the notion of quality of life. According to the authors, the concept of quality of life is equivalent to a feeling of satisfaction from life and satisfaction from particular areas of life.

The notion of quality of life is difficult to define; it is indispensable for the functioning of each individual. It consists of many areas that affect overall life satisfaction, including health,

housing, employment, security, personal and family relationship, education and leisure. In terms of health, quality of life corresponds to those issues that directly affect the health of the individual [19].

Quality of life can be measured using questionnaires. These questionnaires can be divided into general and specific. There are 3 types of questions in the questionnaires:

- closed questions - possible answers are only "yes" / "no";
- nominal / analog scales (NAS), where responses are ranked from the smallest to the highest intensity;
- visual analogue scales (VAS) - in the form of stretches of defined length and severely defined starting and ending points (most often death and full health) [20].

Most of the questionnaires types were developed to measure HRQoL (Health Related Quality of Life). HRQoL can be defined as the effect of "the effects of the disease and its consistent treatment on the patient perceived by the patient" [21]. HRQL measurement gives you the ability to assess the impact of a disease or treatment effect from a patient's unique perspective. Still more important, HRQL is the only available measure that reflects the importance of food allergy to human health [22]. The quality of life of people suffering from food allergies is lower. By measuring the quality of life with questionnaires, you can get information on factors that affect the quality of life of people suffering from food allergies and assess the effectiveness of actions taken, for example the legal regulation implemented etc.

#### 4. FOOD QUALITY AND SAFETY AND QUALITY OF LIFE

Satisfaction with life is defined as satisfaction with the various aspects (domains) of human life. Domain is understood as the aspect of life in which a person has some feelings. Cummings, Headey, Veenhoven, and Wearing [24, 24] distinguished 6 domains of life:

- 1) marriage,
- 2) work,
- 3) material standards of life,
- 4) friendship,
- 5) health,
- 6) leisure.

Hsieh [25] divided his life into 8 domains:

- 1) health,
- 2) work,
- 3) leisure,
- 4) financial situation,
- 5) neighbors,
- 6) family life,
- 7) friendship,
- 8) religion.

Argyle [26] has divided his life into the following domains:

- 1) money,
- 2) health,
- 3) work and employment,
- 4) social relationships,
- 5) leisure,
- 6) private life and
- 7) education.

Food undoubtedly affects the perception of quality of life. Low amount, availability of food negatively affects the quality of life. But also the abundant amount of food and its excess, with what we now face, has an impact on human life through the need to organise production, supplies, food preparation, food choices. In society there is also a growing interest in food, food ingredients, the influence of food on the state of mind. The American Dietetic Association in 2005 announced that food is an important aspect of human life. Using an irrevocable diet may lead to a lack of adequate nutrient supply to the body, leading to negative health effects. Life satisfaction associated with eating food is related to the acquisition, preparation and consumption of food and is assessed on the basis of the consumer's subjective perceptions.

Authors [27] have developed questions to measure the satisfaction of life on the basis of consumed food. The form consists of statements that are evaluated on a 7-point scale:

- food and meals are positive aspects of my life,
- when I think about my next meal, I only see the difficulties and problems,
- I am generally satisfied with the food,
- food and meals give me satisfaction in everyday life,
- my life compared to food and meals is close to the ideal,
- I would like the meals to be a more pleasant aspect of my life,

- for food, the conditions of my life are wonderful.

## 5. CONCLUSIONS

Food is an important aspect of human life because we are all food consumers. Food can be a source of life satisfaction as well as its lack (when you can or cannot afford some expensive

food products). Food should be safe, what means not to be the source of hazards to human life and health. Food affects consumers lives, mood, well-being. The proper quality of food is also important as well as the nutrient supply, availability and variety of food. Food is also a source of pleasure for man. It is one of many domains of life.

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