

## RESEARCH ON THE LEVEL OF AWARENESS AND CONSUMPTION OF FISH AMONG YOUNGSTERS

Lenuța Fotea, Doina Leonte, Elena Costăchescu, G. Hoha,  
C. Leonte, C.E. Nistor

University of Agriculture Science and Veterinary Medicine, Iași  
e-mail: fotealenuta@yahoo.com

### Abstract

*The benefits of fish consumption are numerous from improving human health and prevent disease in humans, to improve work capacity. These benefits are due to the chemical composition of fish meat and their high biological value. This study represents a conceptual framework based on the theory of planned behaviour to determine the awareness and consumption of fish on preferences under which the fish is sold, on the Romanian market, determining causes and barriers to its acquisition among young people. A questionnaire was applied to a target group (young people aged 18-21 years). Responses were analyzed and we draw a number of conclusions: all the respondents know the basic nutritional benefits of eating fish and 96% eat it, 64% know a lot about fish products, 36% often consume fish, 55% prefer fresh fish, 20% frozen fish, 20% canned fish and 5% delicatessen products. It can be appreciated that even the respondents are young they eat fish meat which shows an awareness of the benefits of a diet based on nutritional products and fish is a safe alternative for diet diversification especially among young people and change their attitudes towards fish can be done through the influence of family, educational system and society.*

**Key words:** fish, benefits, awareness, consumption

### INTRODUCTION

In an increasingly food market insecure, maximum attention is required for products to be consumed and correct information regarding the consumers' rights for a healthy diet. Aquatic products consumed by humans have many benefits in relation to their health, improving immunity, prevent serious diseases (cardiovascular, cancer, psoriasis, etc) [13]. These benefits are due to chemical components contained in fish meat (protein,  $\omega 3$  and  $\omega 6$  polyunsaturated fatty acids, minerals, etc) which have a high biological value. Fish meat consumption is increasing in some countries, for example in Korea is reaching up to 54 kg per capita as a recommended consumption of at least two times per week [5]. The level of fish consumption varies by country, tradition, customs and cultural level. According to statistics provided by FAO, fish consumption in Romania has decreased since 1989 from 9 kg per capita to 4 kg per capita in 2010 but by 2025 it will reach to 5 kg per capita [4]. Romania is a country with tradition in terms of

fish consumption, but it seems that consumer priorities changed although there has been a global increase of fish consumption since 2002 [5]. Research undertaken in the present framework aimed to study the level of awareness and consumption of fish meat, and determining causes and barriers to purchase fish and fish products

### MATERIAL AND METHODS

It was made a conceptual framework of knowledge and research of fish meat consumption based on some elements of the theory of planned behaviour [1] [2] [6] which take into consideration several ways to study what is the attitude towards consumption of fish meat. To make a correct assessment could be taken into account a number of elements related to the knowledge of the benefits of fish consumption of meat, the reasons and barriers, risk, positive or negative feelings encountered when buying fish, the desire to change lifestyle concern for the consumption of healthy food habits, family experience, new knowledge acquired,

variety, price, accessibility to the acquisition, the degree of acceptance or cancellation of purchase or consumption due to convenience and some aspects of some of their views, education, etc. Based on these elements was designed a questionnaire which have been processed settling the percentage of participation in the response of 100%. Questionnaire was formulated so as everyone should have a safe and precise image on the question and can answer honestly. Respondents were students in the Faculty of Animal Science which had different views about fish consumption. Of the 50 participants, 38 were women and 12 men, all being below the age of 21, seven of the participants have graduated from college students, now being in the second cycle of education, 43 are students at the faculty, two of them already having a job, 49 of the respondents are unmarried, they 41 of them coming from urban and 9 from rural, incomes were varied between 200 and 3,000 RON in the month preceding the survey.

## RESULTS AND DISCUSSION

Following analysis of the survey and responded to each party and the overall context could make a series of observations that eventually led to the formulation of conclusions about the main objectives to be investigated.

Question 1) Do you know which are the benefits of fish consumption for human health? Response was that 100% of respondents know the benefits of fish consumption which is actually a determinant key in the purchase of fish meat, as shown by other researchers [15] which studied and showed that fish meat consumption produces benefits for human health. 2) How many products and items made from fish meat do you know? Responses varied: 60% know a lot of products and items and consume them as a result and this can be attributed to the fact that they want a healthy diet and consume fish in the family, so family influence may be a key factor in the result of a varied diet [11] and a sense of personal responsibility related to the obligation to eat fish [9] [15], 36% know few products, which can be viewed in light of the fact that they are using

only products in the family, and they are not the ones who decide and purchase products, only 4% know very few products. 3) Do you eat fish and fish products? At this question 96% said "yes" only 4% refused to eat fish, refuse which can be put on the basis that they do not like meat, fish taste or smell, fact which has been shown by other researchers [12] [7]. Referring to question 4) are you a customer/frequent buyer of fish and fish products? The responses showed that only 36% of respondents frequently consume fish or fish products. This shows the availability for a healthy and variety diet, or the fact that they live in a region where large quantities of fish is fishing [14]. The remaining 64% are among those who consumed fish depending on the occasion either to buy or dine in the family or the restaurant, or even know the benefits of fish consumption are not willing to cook more rapidly preferring to consume food [12], or refuse fish because of smell and taste [11] Another aspect may be the low level of incomes in the study group as the majority are students uninhabited with their family. 5) What forms of presentation of the fish prefer to eat/buy? On this question 55% said they prefer fresh fish, 20% prefer frozen fish because this type of fish is already cleaned, 20% prefer to eat processed fish products respectively canned fish, this can be put into the fact that they want to eat fish but do not allow time or place or the fact that this form of processing assures the consumer because it is known that fish is a perishable food that can contaminate very easily if handled improperly, 5% prefer gourmet type products, which are more expensive but are considered part of the specialty and this can be put on the fact that they want to try new products [3]. Question 6) who buy/consume fish or fish products in your family, it was found that 75% of adults are those who do thus purchases in general for all type of fish, young people prefer to buy and consume as canned fish as a reference to the income and value for money. The fact that the adults prefer to buy and to push other members to eat fish is that the older people consume more fish and more frequently because it is more involved in personal health [8] [9], but also their willingness and perception to provide a healthy and varied diet [9], therefore is

necessary to make an educational reorientation both at household and through various media through which nutritionists opinion to be publicized so which could change young people's attitudes about eating fish, this being demonstrated by other researchers [6] [15] 7) from where do you prefer to buy fish and fish products? At this question 60% from the respondents prefer buying fresh fish directly from fish market, producers, usually selling them immediately after catching, the remaining 40% preferring supermarket stores for food safety idea. Frozen fish is bought primarily by 90% in large stores that have specialized departments for this products. 8) What is the reason that determines you to buy fish and fish products? Answers to this question varied so; the most important criteria is the quality and appearance of the product (70%), 20% followed the price, and 10% taking into account the recommendations of acquaintances and advertising 9) What are the elements that determined to buy/eat fish? In this case 70% take into account the sensory characteristics which were established as being the key factor of fish consumption [7], [10], 20% are influenced by the method of obtaining, and 10% take into account the brand as an influence of family tradition or advertising.

## CONCLUSIONS

Based on the made studies we can withdraw some conclusions, namely that the age at which the questionnaire was applied (18-21 years) based on the nutritional benefits of fish are known, the group surveyed consume usually fish and fish products both in family and extra-familial this very important tradition to eat fish as an important factor that can change the attitude towards him since young. Studies compared with other research in this field may be the basis for formulating a national strategy for consumer awareness regarding the benefits of fish consumption on human health and finding levers by which to increase consumption of fish per year and per capita at a level much higher than planned and in a much shorter time.

## REFERENCES

- [1] Ajzen, I., 1991. The theory of planned behaviour. *Organizational Behavior and Human Decision Process* 50(2), 179-211.
- [2] Bredahl, L., Grunert, K.G., 1997. Determinants of the consumption of fish and shellfish in Denmark: An application of the theory of planned behavior. In: Luten, J.B., Borrensen, T., Oehlenschlager, J. (Eds.), *Seafood from producer to consumer, integrated approach to quality*. Elsevier, Amsterdam, pag.21-30.
- [3] Cullen, F., Kingston, H., 2009. Analysis of rural and urban consumer behaviour toward new food products using a food-related lifestyle instrument. *Foodservice Business Research* 12, 18-41.
- [4] Davidson K., Minling P., Wuyang H., CNREP Conference New Orleans, LA, May 26-28, 2010.
- [5] FAO, 2007. *Fishery and Aquaculture Statistics*. 2007.
- [6] Honkanen, P., Olsen, S.O., Myrland, O., 2003. Preference-based segmentation: A study of meal preferences among Norwegian teenagers. *Journal of Consumer Behaviour* 3, 235-250.
- [7] Leek, S., Maddock, S., Foxall, G., 2000. Situational determinants of fish consumption. *British Food Journal* 102 (1), 18-39.
- [8] Myrland, Ø., Trondsen, T., Johnston, R.S., Lund, E., 2000. Determinants of seafood consumption in Norway: Lifestyle, revealed preferences, and barriers to consumption. *Food Quality and Preference* 11(3), 169-188.
- [9] Olsen, S.O., 2001. Consumer involvement in seafood as family meals in Norway: An application of the expectancy-value approach. *Appetite* 36(2), 173-186.
- [10] Olsen, S.O., 2004. Antecedents of Seafood Consumption Behavior -- An Overview. *Journal of Aquatic Food Product Technology* 13(3), 79-91.
- [11] Olsen, S.O., Ruiz, S., 2008. Adolescents' influence in family meal decisions. *Appetite* 51(3), 646-653.
- [12] Rortveit, A.W., Olsen, S.O., 2009. Combining the role of convenience and consideration set size in explaining fish consumption in Norway. *Appetite* 52(2), 313-317.
- [13] Sidhu, K.S., 2003. Health benefits and tential risks related to consumption of fish or fish oil. *Regulatory Toxicology and Pharmacology* 38(3), 336-344.
- [14] Trondsen, T., Braaten, T., Lund, E., Eggen, A.E., 2004. Health and seafood consumption patterns among women aged 45-69 years. A Norwegian seafood consumption study. *Food Quality and Preference* 15(2), 117-128.
- [15] Verbeke, W., Vackier, I., 2005. Individual determinants of fish consumption: application of the theory of planned behavior. *Appetite* 44(1), 67-82.
- [16] Verbeke, W., Vermeir, T., Brunso, K., 2007. Consumer evaluation of fish quality as basis for fish market segmentation. *Food Quality and Preference* 18(4), 651-661.