# **SUMMARY**

Innovative communication methods for the "responsible" choice and use of food by the consumer

## **Key words:**

Food risk; risk perception; students/adolescents, communication tool

Containing food risk and promoting useful initiatives for consumer education are some of the challenges of these times and involve transversely and with different roles producers, consumers, institutions and the scientific world. The risk analysis process is divided into three phases: risk assessment, management and communication. Helping the consumer to understand the nature of food risk can influence his behavior by inducing the adoption of conscious and safe food practices. For timely, clear and effective communication in the food safety sector, it is necessary to start from understanding the perception of risks by the different groups of consumers (1, 2). The tools to inform can be different and are chosen according to the content and the target, in the forms and modalities with which the recipients inform and communicate. Information to the public is provided, above all, through traditional channels, "media", information campaigns, conferences, brochures, initiatives in schools or in other places. In most cases, these are information and non-communication tools in which the citizen has a passive position, only as the recipient of the message. In recent years, web-based communication systems have been implemented, such as games, videos and apps, which have diversified the possible tools to communicate with the consumer in general or with specific groups. The current research, Innovative communication methods for the "responsible" choice and use of food by the consumer, is inserted in this context and goes alongside risk studies already carried out at national and international levels (3, 4, 5). The research is aimed at a specific segment of the population, the adolescent one, for which there are not many bibliographic references. Adolescents, if not appropriately informed about good practices concerning the handling and consumption of food, can be exposed to risk, especially during moments of autonomous preparation of food or during their consumption outside the home.

Focusing on this particular group could be a long-term investment: in fact adolescents have ability to quickly assimilate useful information and then convey them to the family and to consolidate adequate eating habits.

The aim of the research was to investigate the perception of risks associated with nutrition in a population of adolescents (14-18 years old), in Rome and its province and then prepare communication tools and informational interventions useful to support young consumers in the management of food risks.

### Materials and methods

The two-year research project (December 15, 2016 to December 14, 2018) was divided into several phases. The study was carried out on a representative sample of 2,663 participants through the administration of an online questionnaire and, subsequently, through a series of focus groups to analyze information resulting from the quantitative survey. During the research, numerous meetings were held between the Istituto Zooprofilattico Sperimentale of Lazio and Tuscany (after IZSLT) and the students involved in the research to plan the activities, discuss and evaluate the work progress. The phases of the project are shown below.

Phase 1: study and evaluation of investigation and communication tools in food safety

Phase 2: identification of the area of action and selection of the sample

Phase 3: cognitive survey by questionnaire

Phase 3.1: sample survey (pre-test); Phase 3.2: administration of the questionnaire and data collection

Phase 4: data processing and statistical analysis

Phase 5: qualitative survey through focus groups

Phase 5.1: preparation; Phase 5.2: performance of the focus group

Phase 6: data collection and identification of the communication tool

Phase 7: implementation of the communication tool

Phase 8: dissemination of the communication tool.

#### **Results**

The present research examined the knowledge about specific aspects related to food safety by adolescents of three higher schools in the province of Rome. The results are in part aligned with what emerged from similar studies carried out in Italy and internationally on the same target audience. Specifically, adolescents' awareness about the importance of a balanced diet was confirmed. The data showed a daily consumption of starchy products (78.3% of pupils), fruits and vegetables (56.9% of pupils), milk and dairy products (55.1%), in line with the indications for a healthy and correct diet. Most students are aware of the correlation between adopting appropriate food storage and handling practices and reducing the risk of contracting food-borne diseases. Conversely, knowledge of specific risk-related topics is limited. When choosing a food, 84.8% of students attach great importance to the expiration date, but most of them do not read the label or do it very quickly, focusing on specific aspects (expiry date, nutritional table, allergens). Only 29.2% of the participants read label carefully, about 20% of the participants doesn't know which risk (chemical, physical or microbiological risk) is most important for health and 29.3% think that the mean risk is chemical. In reference to consumption outside the home, the hygiene of places and operators is not a discriminating factor in the choice. There are also some unexpected results. In the acquisition and development of food safety knowledge, the school plays a marginal role: the first source of information for children, in relation to food-borne illnesses, is the family with 1648 preferences, followed from internet/social and medical; the school with 1020 preferences is in fourth place. The pupils expressed their interest in the proposed themes (diseases transmitted by food, their production, conservation and manipulation), even highlighting the need to include them in the educational programs. But the surprise element of this research is the communication tool identified by the students: a school project (1,584 preferences). Unlike what could be hypothesized, the fascination of computer technology of recent times (app, social) has given way to a more traditional teaching methodology but only if integrated with interactive and/or alternative activities, such as focus groups and video clips.

### **Discussion**

The protection of consumers and the guarantee of healthy and safe food are the basic principles of food safety legislation (6) and are the subject of increasing attention from the different stakeholders, such as citizens, trade organizations, professional associations, institutions and scientific world. Some surveys, carried out also by the European Commission, have shown that among European consumers there is particular attention and, in many cases, concern for food safety (2, 7, 8). In general, consumers have expressed concern about the contamination of chemicals, pesticides and other toxic substances (30% of respondents) and less for the origin of products/traceability (20%) and for bacterial contamination (15%). European Food Safety Authorities (EFSA) and European institutions have achieved high confidence (64% and 57%) but higher levels have been achieved by health professionals and personal contacts (84%). Most European citizens think that public authorities are doing a good job regarding the protection of the population from specific food risks. But the survey also indicates that 81% think that there is room for improvement to "ensure that foods are healthy as well as to inform people about healthy food and lifestyles" (7). An altered perception of risk by consumers could result in unjustified alarmism and repercussions on the market, therefore, national institutions have the duty and the need to gain and maintain the trust of all stakeholders.

This objective can be achieved through appropriate communication policies with a systemic perspective, favoring a dialogue between the parties and, above all, with clear and timely communication addressed to citizens on the nature, gravity and prevention of any risks related to food. Excellent results can be achieved by integrating the traditional top-down communication with the bottom-up one, where the public takes an active role as in the present project where the young consumers already have actively participated in the design and choice of communication tools. In fact, the quality of communication depends on the ability to reach the target audience. The students participating in the research have identified in the school project the communication tool with which they would like to be informed about specific aspects related to food safety. An apparently traditional approach that takes on a new look as it must use innovative and interactive communication techniques as respectively infographics, thematic videos and focus groups. Communication is made more stimulating by the choice of content made by the pupils themselves. In this way the awareness of the importance of correct practices would be supported by a real knowledge of the behaviors to be adopted to prevent food risks.

### **Conclusion**

The active involvement of teachers and students in research has confirmed the interest in the issue of food safety and the risks deriving from incorrect behavior, as well as the need for projects that treat these topics in an innovative way and appropriate to the target. The research in question would need to be further developed and expanded in order to test and validate the school project as a communication tool for the "responsible" choice and use of food by the consumer. This experimentation would contribute to strengthening the school's commitment to raising the awareness of adolescents, who already have the main point of reference in the family.