



Assessing Albanian consumer's perception of safety towards animal food products: Preliminary data from a cross-sectional survey

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Keywords

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Consumers perception
Antibiotics
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Abstract

Food safety is a major concern for Albanian consumers. Just like consumers in the EU countries, Albanian consumers share the same concerns about food safety. Therefore, the first aim of this research is to assess the perceived safety of Albanian consumers of three different product categories with animal origin (milk/milk products, eggs and meat/meat products). The second aim is to explore the relationship between the safety perception from the consumers and different technological treatments applied in these products. In the manuscript are depicted the first preliminary data collected from November 2022 to April 2023 from a cross-sectional survey. From a panel of potential hazards in food, antibiotics and hormones were perceived by the Albanian consumers as the main hazard in three types of foods taken under consideration. In the frame of technological treatments of food and its impact in the safety of food, the data shows that raw milk, fresh eggs, and meat directly from the butcher were perceived as "Safe" or "Totally safe" from Albania consumers. Despite the fact that this is an ongoing study we believe that other qualitative research in this direction is mandatory in the near future in order to have a more complete view of Albanian consumers on this topic.

Introduction

The concept of "Food Safety" is in correlation with consumer's health which is related not only to microbiological hazards but also to misuse of food additives, chemical contaminants, including biological toxins, and adulteration [1]. These factors may change from one research to another because of the consumer profile taken into examination [2-3-4]. The globalization of the food chain, so called "From farm to table", makes the traceability exceedingly challenging and, on the other hand, has raised consumer concerns about both the quality and safety of their food. Just like consumers in the EU countries, Albanian consumers share the same concerns about food safety. Therefore, the first aim of this research is to assess the perceived safety of Albanian consumers of three different product categories with animal origin (milk/milk products, eggs and meat/meat products). The second aim is to explore the relationship between the safety perception from the consumers and different technological treatments applied in these products. We are presented in this manuscript the first preliminary data of an ongoing study.

Material and Method

The research is a cross-sectional survey. The questionnaire was delivered in November 2022 through online platforms (google form) and is still ongoing. The design of the questionnaire used in the survey was mainly based on similar research [2] and adopted to the characteristics of Albanian consumers. The questionnaire is composed of three parts. The first part contains questions regarding demographics characteristics, including the frequency of the frequency of the consumption of three different product categories (milk, eggs and meat). The second part contains questions regarding the consumers' perception toward the main hazards of these three categories of foods. In the third part a Likert scale was used to explore the relationship between the safety perception from the consumers and different technological treatments applied in these products. The Likert scale used varies from

“Totally unsafe” (which has a numeric value equivalent to 1) to “Totally safe” (which has a numeric value equivalent to 5).

Results

The first preliminary data of the survey, from November 2022 until April 2023, produced an eligible sample of 356 participants. All the demographic characteristics of the participants are as depicted in Table 1.

Table 1. Demographic characteristic of the participants until April 2023 expressed as frequency (n) and rel. frequency (%)

Variables	Categories	Frequency (n)	Rel. frequency (%)
Sex	male	151	42.4
	female	205	57.6
Age	18-30	43	12.1
	31-50	246	69.1
	more than 50	67	18.8
residence	village	37	10.4
	town	319	89.6
household composition	single	68	19.1
	married	81	22.8
	married with children	207	58.1
Frequency of milk consumption	Daily	231	64.9
	Minimum 1 per week	91	25.6
	Minimum 1 per month	28	7.9
	Less than 1 per month	6	1.6
Frequency of milk product consumption	Daily	253	71.1
	Minimum 1 per week	47	13.2
	Minimum 1 per month	31	8.7
	Less than 1 per month	25	7
Frequency of egg consumption	Daily	241	67.7
	Minimum 1 per week	87	24.4
	Minimum 1 per month	22	6.2
	Less than 1 per month	6	1.7
Frequency of meat consumption	Daily	101	28.4
	Minimum 1 per week	223	62.6
	Minimum 1 per month	25	7
	Less than 1 per month	7	2
Frequency of meat product consumption	Daily	67	18.8
	Minimum 1 per week	245	68.8
	Minimum 1 per month	36	10.1
	Less than 1 per month	8	2.2

In the second part of the questionnaire, it was assessed the perception of the participants toward the main hazards in milk, eggs, and meat. In the questionnaire it was obligatory to choose only one of the hazards from the list. Antibiotics and hormones were perceived by the consumers as the main hazard in three types of foods taken under consideration as depicted in Figure 1.

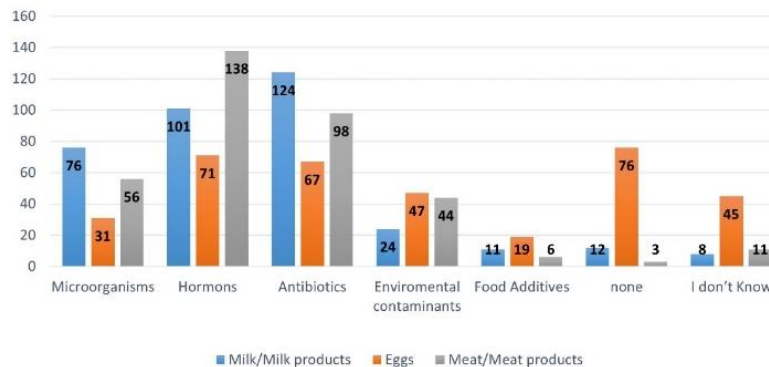


Figure 1. Perception of Albania consumers towards the main hazards in milk, eggs and meat expressed as frequency (n)

Furthermore, we assess if there is a relationship between food origin and safety perception of the consumers. Among different variables (*Local/Albanian food products; Regional/Balkan Food products, Mediterranean food products; Other EU food products and Outside EU Products*) the participants must choose only one option, the one that they perceive more safety. The first preliminary data show “Local/Albanian food products” and “Mediterranean food products” were perceived as more safety compared to other categories, respectively 43% and 39%. In the third part of the questionnaire, it was assessed the effect of food technology on the perceived safety of different products. The participant must choose only one of the following, from “*Totally unsafe*” to “*Totally safe*”, versus different types of food categories. The first preliminary data shows that raw milk, fresh eggs, and meat directly from the butcher were perceived as “*Safe*” or “*Totally safe*” from Albania consumers as depicted in Fig.2a, Fig 2b and Fig 2c. We believe that there is misleading information among consumers that quality food is always a safety food (this part of the questionnaire is still under processing).

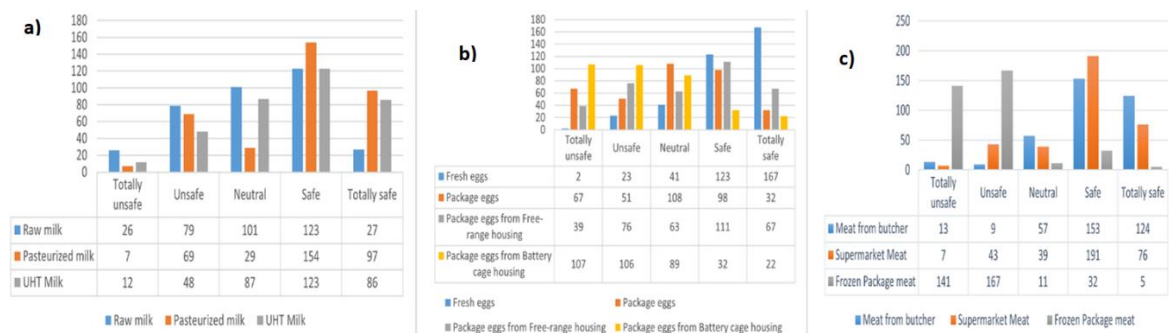


Figure 2. Albania consumers safety perception towards foods and different technological treatments applied in a) milk, b) eggs and c) meat

Discussion

There have been some attempts at assessing consumer perceptions of the safety of food products in Albania [4-5], but public understanding of the idea of food safety is still insufficient, particularly in connection to how consumers view food technology [2]. Our data indicates that the most important hazards in three categories of food taken under consideration (milk, eggs and meat) according to the Albanian consumers are antibiotics and hormones. Milk and meat products had similar patterns of chosen hazards from the consumers which follows the literature [2, 6]. We believe that other qualitative research in this direction is mandatory in order to have a more complete view of Albanian consumers on this topic. Moreover, these types of research will shed light on the difference between what consumers claim to be of concern and what may actually be problematic for food safety.

Conclusion

The first preliminary date extracted from the questionnaire highlighted antibiotics and hormones as the main hazards in three different categories of food products (milk, eggs, and meat) and moreover technological treatments applied in milk/milk products are not perceived as negative factors that will affect the safety of this product according to Albanian consumers.

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