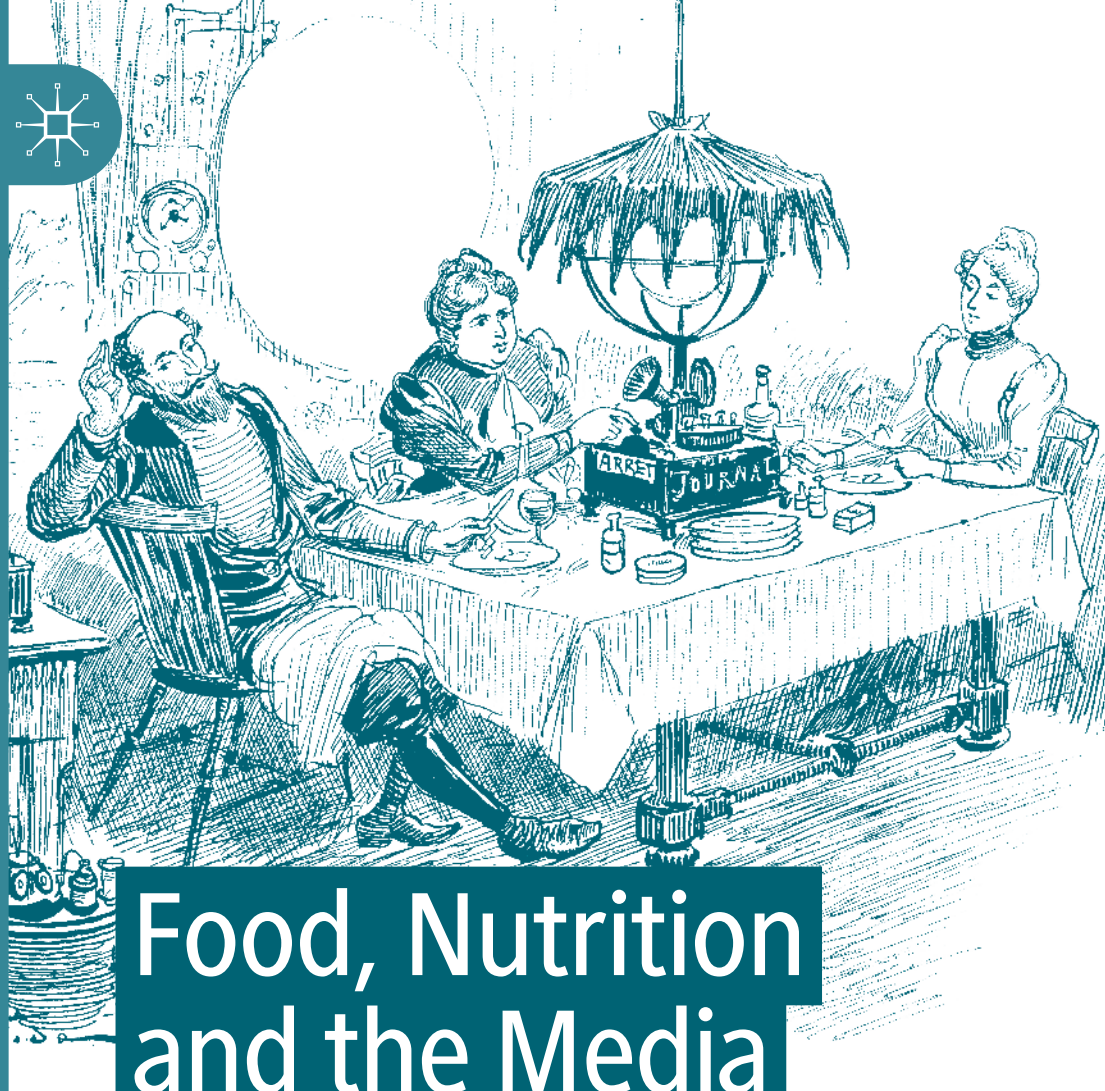




Food, Nutrition and the Media

Edited by
Valentina Marinescu

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CHAPTER 1

Introduction

Daniel Biltereyst

At the time of writing this introduction, the coronavirus outbreak has become an international public health emergency of an unprecedented global scale. Starting in mainland China, where the coronavirus disease (COVID-19) was first reported from Wuhan, China, at the end of December 2019, the disease soon reached other territories with significant outbreaks in South Korea, Iran, Italy and other countries in Asia, Europe and America. As of early March 2020, there are few domains where the virus outbreak had no impact. Besides the growing amount of people affected by the disease, the coronavirus (COVID-19) has impacted national and international economies with global stock markets tumbling even as death toll climbs past 3000. The coronavirus is having a significant effect on international tourism and aviation, as many countries and regions have imposed temporary bans and introduced more strict border controls. In Europe, the debate on migration is now linked to the virus, whereas in Italy all schools and universities are temporarily closed. Major sports, entertainment and other public events like those organized by the international cycling union (UCI) are threatened with cancellation due to the

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pneumonia epidemic. The lockdown of a metropolitan area, like Wuhan in China or of smaller Italian cities in Lombardy and Veneto, is described by opinion makers as one of the most significant social experiments ever, which might change work-from-home practices and other future economic and social behaviour. The health crisis is even discussed in terms of its geopolitical and economic consequences, with some speculating upon its impact on China's recent growth as an emerging world power.

We believe that for future historians of the 2019–2020 coronavirus crisis, however, it will be impossible to understand the far-reaching consequences and complexities without taking into account the roles played by media and communication. One of these is that news media and social media platforms not only are inundated with secure information, but are also spreading all kinds of disinformation on the epidemic. Whereas national authorities and health officials, in a growing number of countries, work hard for clear medical information and try to counter a wide-scale panic, the coronavirus outbreak has produced an overabundance of less accurate information. According to the World Health Organization (2020, 2), this “makes it hard for people to find trustworthy sources and reliable guidance when they need it”. This “infodemic”, as the WHO called it, is likely to cause an amplification of the panic, and this spiral of misleading information requires authorities to invest heavily in providing evidence-based information to the general public.

More fundamentally, however, the role of the media in the coronavirus crisis illustrates perfectly what Andreas Hepp and Uwe Hasebrink (2018, 16) call “deep mediatization”. This refers to a complex, long-term, non-linear and often contradictory process where different social domains are being more and more shaped by “an increasing spread of technologically based media in society”. For Hepp, Hasebrink and other scholars working around this concept (e.g. Couldry and Hepp 2018; Hjarvard 2013; Livingstone 2009), “it is no longer expedient to grasp the social impact of ‘media’ merely as the influence of a distinct domain (i.e. journalism) which is separate from other domains of the social world” (Hepp and Hasebrink 2018, 16). According to Hepp and Hasebrink (2018, 17–18), “No matter which domain of society we consider, its formation is in one way or another related to the technologically based media of communication, which are all becoming digital.”

Although the coronavirus emergency is an extreme example, it perfectly illustrates also how in contemporary society health issues and media are becoming more than ever closely intermingled. This volume on food,

nutrition and the media offers many examples of how images, stories and discourses on health are mediatized. One of the premises of this volume is that media not only inform patients, citizens and audiences on issues related to health, illness, (mal) nutrition and lifestyle. Following mediatization theories, most of the contributions follow the argument that the social world is fundamentally interwoven with media, and that media have the power to determine the perceptions and meanings of health and nutrition in the contemporary social world.

The field located at the intersection of media, communication and health has exploded in many different directions. Its research agenda has become much broader than what was often at the heart of health communication (e.g. public health campaigns, health education and communication between doctor and patient). An essential part of this expanding research agenda remains one of studying health-related information and discourses on health. Most of the contributions to this volume take this perspective, with many interesting examples of how food-related information are represented and mediatized.

A second field of research looks at the production of these mediated narratives and discourses, with traditional media diminishing their importance as critical gatekeepers in the flow of information between the medical world, the health industry and health officials on the one hand and citizens, consumers and patients on the other. One factor changing this relationship is the abundant availability of health information provided by Google, Wikipedia and all kinds of other digital platforms. Another is that many of the stakeholders in the health environment like the pharmaceutical industry or health insurance companies now have sophisticated tools to connect with, inform and influence citizens and patients. The health environment, however, became much more dynamic also with patient-support and advocacy groups, consumer organizations, and other stakeholders. Research on power relations between these stakeholders, and on how they are successful in influencing health communication and information, is still in its infancy (e.g. Van den Bogaert et al. 2018).

The third part of a broader research agenda on health and media refers to the receiving end of the health information chain. One important factor here is that thanks to the abundant availability of online health information on nutrition, diseases and health in general, citizens and patients have become more active. This empowerment of health information seekers tends to change the traditional patient–physician relationship. With Google, Wikipedia and other online health information platforms

becoming quick “know-it-all” parties (e.g. Huisman et al. 2019), the nexus between the media, the health industry and citizens have fundamentally changed.

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Food, Nutrition and Media

Daniela Rovența-Frumușani and Valentina Marinescu

In the risk society (Ulrich Beck) but also of the “individual” (Alain Renaud), we are witnessing today the refocusing on the issues of “healthy” life, culinary norms and representations, in other words on eating and sporting practices capable of rebuilding the physical and psychological balance of “hypermodern” individuals.

At the most basic level of Maslow’s pyramid, food is no more nutrition or necessity for our survival, preventing us from starving or becoming sick. Food is a central component of our identity, culture and social interaction as well as the subject of a growing number of questions and publications from the academic field to the medical field via the media.

Food practices touch on fields as varied as culture (gastronomy and culinary heritage), health (food security, nutritional prevention), economy (budgets, food markets, production and marketing) and media through the process of food and celebrity mediatization.

At the crossroads of social sciences, medical sciences, communication and so on, research and practices have developed in the last two decades into broad interdisciplinary perspectives (editorial *Sciences sociales et santé* 2013, 3). Although disease remains a frequent object of study, the context widens including the prevention of illness (obesity, overweight),

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the public's implication, the crucial role of the media as well as new public health policies. The diverse thematic spectrum includes recent technological and anthropological changes (the role of the patient and/or informed and responsible consumer).

2.1 THE WORLD OF FOOD AT THE CROSSROADS OF SOCIAL SCIENCES

Based on the pioneering work of Roland Barthes (1961), the world of food—cooking, food, rituals and eating practices—has given rise to numerous studies in the humanities and social sciences. Anthropologists (Levi-Strauss 1969, 1973, 1978; Douglas 1966), sociologists (Bourdieu 1979; Raymond and Parasie 2005) and cultural historians (Hache-Bissette and Sailliard 2007) have all shown that “food is not only a carrier of functional qualities which meet physiological requirements or health and well-being needs. Food and eating practices also come from the sphere of the economy (production and market of the food industry), social space (socialization, social inequalities, construction of individual and collective identity, or generation of food consumption), culture, rites and imagination” (de Iulio et al. 2015).

Studied as an economic, social or cultural phenomenon within disciplinary boundaries but questioning “traditional disciplinary divisions” (Raymond and Parasie 2005, 7), food has been configuring a new field of research since the end of the last century, *Food Studies*, linked to *Media Studies*.

Not only anthropology, sociology, history and geography but also political science, psychology and other branches of human and social sciences are mobilized to work together to understand cultures and eating practices and to question critically societal implications of food production and consumption. “Whether they relate to food consumption, culinary tastes, table manners, food production or forms of sociability, the various contributions question the food situation by mobilizing not only various methods and objects, but also different traditions and disciplines” (Raymond and Parasie 2005, 3).

Interdisciplinarity can and must involve the permeability and circulation of knowledge between disciplines. In the field of health research, the overcoming of disciplinary barriers and the creation of new links, new hybridizations and even new ways of producing knowledge are

increasingly valued. Beyond the central question of the unity of disciplinary knowledge, this strong concept of interdisciplinarity questions the social uses of the human and social sciences. How are knowledge and tools transferred from one discipline to another?

Coming from various disciplinary fields—information and communication sciences, sociology of food, sociology of culture, anthropology—the authors gathered in this volume focus their attention on the public dimension of food and on the priority themes represented in traditional and new media. They are trying to answer how and why the production, distribution on the markets, preparation and consumption of food are becoming more and more public affairs? What place do information and communication devices occupy in these processes? How do public decisions and economic issues (profit) of the food industry converge or oppose?

2.2 FOOD AND IDENTITY

“Tell me what you eat, I’ll tell you who you are,” said Brillat-Savarin; put other ways, food is the support of individual and collective identity (peasant or aristocratic taste, manner of table, etc.).

Memories of the past (the Proustian *madeleine* experience), interactions inside and outside the familiar circles contribute to shaping our identity, including culinary competences in their physical, emotional and cognitive dimensions. We constantly experience tension, described by Claude Fischler, between *neophilia*, the curiosity to try new foods, and *neophobia*, the concurrent fear of unknown substances, which could be potentially dangerous or even poisonous (Parasecoli 2014). In the actual consumer cultures, we are in permanent contact with various products, shopping modalities, eateries and festivities, whose values and significance are shaped through media, medical discourses, education and so on. “All the personal and communal experiences are often embedded in and influenced by practices, norms, and representations that could be defined as ‘collective’ since they transcend individuals” (Parasecoli 2014, 420). Within the same group/population, very often the past can be projected as perfection and happiness, and food remembered/valued as healthier and more tasteful.

Sensitivity towards “otherness” as well as a tendency towards globalization of media and culture marks our everyday life; in addition, media practices play a differentiated and differentiating role in people’s practices concerning food.

2.3 LOCAL AND GLOBAL “FOODSCAPES”

Many paradoxes mark the contemporary vision of food and its evolutions. At the same time, attachment to the local and regional is developing, but media and globalization are building the image of an increasingly uniform, globalized food.

The evolution of eating practices opposes two intimately linked perceptions; the first highlights the negative aspects of contemporary food, fast food and junk food. The second idealizes healthy eating adorned with all its virtues.

Indeed, food, eating and culinary traditions are omnipresent in contemporary culture and are key elements of social interaction. Precisely because food is social, cultural and deeply embedded in everyday life, it is also both ideological and political.

These ideological and political dimensions of everyday food practices are the main objects of contemporary “foodscapes”—a concept Johnston and Goodman have launched in *Food Studies*.

Based on Appadurai’s (1996, 33) five “scapes”: ethnoscapescapes, mediascapescapes, technoscapescapes, financescapescapes and ideoscapescapes, the foodscape concept “describes and facilitates analysis of the encounters, contestations and resistances that make up the everyday landscapes of food we inhabit” (Johnston and Goodman 2015, 207).

We assist nowadays to a broad “celebrification” of food and food actors (chefs’ contests and shows, culinary blogs, various food and nutrition media).

2.4 MEDIA STUDIES AND FOOD STUDIES

The exponential proliferation of media in our postmodern society, the variety of content and formats they disseminate and their personalization encourage us today to develop a new theoretical perspective mainly interdisciplinary, likely to help us better understand the complexity of reality and the process of shaping social norms, attitudes and behaviours especially in the domain of health (Renaud 2010, 10).

Recent figures emphasize that individual behaviour plays a significant role in our longevity (40%) as compared to genetics (30%) or social and environmental factors (20%). That is why research has to emphasize how media content and advertising of food shape the audience’s beliefs and behaviours about food, nutrition and health.

Indeed, all forms of media come under scrutiny within Food Studies, including television, newspapers, magazines and the internet (Lizie 2013, 30). The study of food and communication is enriched from a cultural/ritual point of view that has its deep roots specifically in the often-cited Barthes' (2008/1961) work on the semiotics of food in everyday life. More generally (but less frequently cited), Foucault and Baudrillard's postmodern theories of power and culture, Bourdieu's work on class and distinction, various aspects of Marxist criticism and the Frankfurt and Birmingham Schools "critical cultural analysis of culture" (Lizie 2013, 31) also feature.

Food is included in sophisticated communication strategies, and media use the communicative nature of food consumption to construct new approaches and new meanings. The televised audience and that of the internet appear imagined as audiences aware of the fact that in contemporary and western culture, the rituals of food preparation and consumption are considered central to the individual and social life, because food, cooking and friendly rituals only exist, for human beings, to discover and keep their links (cf. also Colombo and d'Aloia 2015).

There are numerous magazines, press articles, shows and even TV channels dedicated to cooking. Food blogs, Social Media accounts, the constant production of images, movies and discourses on food, table, cooking and taste constitute the basic explanatory system of the success of the culinary, in terms of media coverage. The mediatization of the culinary cultures and practices are placed between the economic and the symbolic aesthetic and fun. The dominant ethos combines not only the ethics and the aesthetics of culinary traditions but also its rhetoric and pragmatic as different ways of being, doing and seeing (being seen) in the kitchen (Colombo and d'Aloia 2015, 36).

2.5 FOOD IN THE PUBLIC SPACE

Food is becoming a public matter firstly because it involves sanitary, safety, environmental and economic questions which go beyond the sphere of individuals or families and concern the community as a whole. Choices regarding food appear to be a source of danger for several aspects of social life, and this contributes to increasing their public visibility while creating problems which attract the authorities' attention. Food and food practices concern politicians and impose vigilance and intervention from state institutions. State control and prevention measures are (or seem to be)

necessary to control and avert risks linked to food. Thus, the actions of the public authorities enter into the private sphere and private domestic life through the information and communication initiatives which are or should be an essential component of any government's work. Food, therefore, acquires a public dimension through its involvement in prevention campaigns (cf. see also the analyses of the present volume).

At a time when Food Studies becomes more global, when every day news, TV shows, culinary blogs and so on evoke both the refuge represented by the pleasure of food and the planetary risks of food, it is crucial to stress the idea of cultural practice and identity represented by the simple act of eating because “we do not eat only nutriment but also representations and imaginary” (Dodane 2015).

2.6 CONNECTING MACRO AND MICRO, GLOBAL AND LOCAL

It seems necessary for numerous researchers to expand upon the theme of culture in the emerging field of Health Communication, mainly by arguing for the development of a multidisciplinary perspective conciliating the micro and macro approaches. Culture is both what makes individuals react and what is generated through interactions. We tried to answer the following question in several articles of the present volume: how can we manage the reconciliation between macro and micro approaches and fully integrate the cultural dimension into a better understanding of the phenomena studied in Health Communication and Food Studies in the broader context of social interaction?

Research interest lies neither in the micro nor in the macro (otherwise the local or the global) *per se*, but rather in their connectedness.

According to Appadurai, the global is:

[...] a complex, overlapping, disjunctive order that cannot any longer be understood in terms of existing center-periphery models...I propose that a simple framework for exploring such disjuncture is to look at the relationship among five dimensions of global cultural flows that can be termed (a) *ethnoscapes*, (b) *mediascapes*, (c) *technoscapes*, (d) *finanscapes*, and (e) *ideoscapes*. (1996, 32–33)

Appadurai calls these landscapes imagined worlds that have not a disciplinary effect. *Ethnoscapes* refer to the constant flux of people in the global

world, including immigrants, refugees and tourists. Mediascapes are constituted by the symbolic and technical capacities of production and broadcasts content worldwide by creating world representations. Technoscapes are defined by the configuration of mechanical and informational techniques (including the biotech) not only affecting economics but also cultural representations and the flow of information. The circulation of global capital represents financescapes. Finally, there are the ideoscapes, where the dialectic between institutional (national and supranational) and non-institutional players (NGOs and alter-globalization movements) reflects the power/counter power dynamics globally.

In “Romanian Online Media and Public Health Threads: Case Study Incidents with Food in Urban Areas,” Ecaterina Balica (Institute of Sociology of the Romanian Academy, Romania) discusses international studies that have shown the importance of media in communicating incidents involving outdated, infected products or products with a composition that could endanger public health. At the same time, the author summarizes studies that highlight the wrong way in which media transmit information on food alerts. The chapter presents the results of the analysis of news in Romanian online media on food alerts identified by the National Sanitary Veterinary and Food Safety Authority (ANSVSA) during 1st of January 2018 and 1st of January 2019.

“Media Coverage of the Topic ‘Nutrition’ and Related Issues in German Online News” by Simona Rodat emphasizes the fact that nutrition is a theme of great interest in German media, often addressing topics such as healthy nutrition, diets, nutritional value of food, nutrition concerning health and diseases, but also various scandals about food production, risks and controversies linked to farming practices and the animal industry. The main objectives were to identify the most typical frames used in the media coverage of the theme of nutrition, using content analysis, applied to the German online media over three years, namely 2014–2016. According to the research results, the most frequent frames in the German media coverage of nutrition were health and diets. Within them, the most common topics were not only health risks and diseases associated with nutrition and food, health benefits and dangers affiliated with specific diets, nutrition related to particular illnesses, healthy food, risks related to unhealthy eating but also risks of exacerbating the healthy eating and so on.

In “Educating Through Television in Health and Nutrition” Valentina Gueorguieva discusses campaigns against risk factors for non-communicable diseases (NCDs), caused by an unhealthy diet and excessive salt

consumption; they have become common since the WHO declared ischemic heart disease and stroke as “the world’s biggest killers.” In Bulgaria, a public campaign against excessive salt consumption was launched in 2012 as a consequence of low levels of nutrition literacy demonstrated in surveys and a stable percentage of deaths attributed to cardiovascular diseases. The chapter compares the potential of a public health campaign broadcasted on public television with the more unconventional approach of a medical drama produced by a commercial TV channel. The latter appears to be more competitive in a media environment saturated by food advertisements, although it lacks the strategy and factual information of the public campaign.

Valentina Marinescu provides in “Media Coverage of Food Issues in Romania—A Longitudinal Analysis” a study of food coverage in the Romanian media, coverage which showed a minimal appeal to scientific evidence—almost half of all articles did not mention a person or document when they addressed food. The focus of the articles published in Romanian media was almost exclusively on the coverage of certain aspects of food concerning health and disease, nutrition in general and conditions related to food and nutrition. This study had also identified the existence of five mainframes for “food” and related issues covered by Romanian media: “Nutrition,” “Diet,” “Risks,” “Disease” and “Food.”

“Experiencing the Spectacle of Fine Dining. New Forms of Festivity in Sofia, Bulgaria and Diversion of Public Space” authored by Vladislava Petrova is focused on two forms of appropriation of urban space through new forms of festivity organized around fine eating. Although those new forms intervene with public space and use its ideology, these practices rather question the general access to it. They are usually organized as private events but insist on a higher, often non-commercial purpose that adds value to the experience, following the logic of new capitalism. This may be the demonstrative struggle with wastefulness or aestheticization of food consumption in public spaces as a form of creating new experiences. The new media play a crucial role in experiencing and producing those events: from their disclosure and access to the organization of their visual identity.

Elena Ciobanu and Cătălina Croitoru analyse in “‘Nutrition’ and ‘Food’ in Online Media in the Republic of Moldova. Content Analysis” the huge media power in public opinion-forming and decision-making. The study aims to analyse how “nutrition” and “food” are reflected in online news media, media websites, TV station/websites, newspapers, aggregate online site and news agencies from the Republic of Moldova. As

a source for data collection, the search browser www.google.com was used. The analyses have been carried out using a grid of analysis with 45 items. As a result of the analysis, recommendations on healthy food and nutrition, health in general, diets and diseases were made in the articles.

In the paper “But Where Are the Tastes of Yesteryear? Mapping the Commodification of Communist-Era Food Brands,” Alexandra Bardan and Natalia Vasilendiuc explore the configuration of the communist-era food brands into the broader context of the local market. The analysis is guided mainly by the success stories of transitioning brands and by the unexpected presence of preserved food dating from more than 30 years ago. The introduction reviews the links between memory and material culture and between the marketing of nostalgia and branding strategies. The second part summarizes the authors’ previous findings on a typology of Romanian brands from the past (“Originals,” “Updated,” “Romanian Tastes,” “Archetypal Figures,” “Nostalgic” and “Collectibles”) and presents a new analysis within the framework established by Wally Olins, based on the four vectors of brand tangibility. Identifying a different perspective on the commodification of communist-era food brands, the discussion looks upon the longevity of past brands in relation with the following criteria: product/recipe, identity/packaging, communication/advertising and consumer experience/taste.

Cătălina Stanciu in “Culinary Discourse in Contemporary South Korea” discusses the South Korean food culture and its developing ways of coping with the traumatic memory of the Korean War (1950–1953). The study is focused on Budaejjigae (army base stew), a South Korean dish dating from the period after the Korean War. At that time, the basic ingredients for this stew were the surplus canned meat (SPAM ham and hot dogs) which were mostly smuggled from the US military base by the famished Korean citizens. For more than 60 years, based on elements of its traditional culinary culture, such as aesthetical and curative values of food, South Korea has found a manner of successfully converting a reality, which initially perverted Korean cuisine and caused a profoundly traumatic memory, into a chance of re-evaluating and defining Korean culture in terms of national pride. Thus, the consumption and extensive promotion of Budaejjigae in contemporary South Korean society become a culinary discourse of overcoming traumatic memories of war.

Cătălina Stanciu and Ramona Marinache offer in “A Conceptual Map of ‘Nutrition’. Content Analysis of Uses in Romanian Mass Media and Scientific Articles Between 2014 and 2017” the analysis of the scientific

information in Romanian media articles and scientific journals concerning obesity and overweight given the alarming figures of the National Institute of Statistics indicating that 46.4% of the population over 18 years were overweight and 9.3% were obese. And there is no lowering of these rates in sight. The current corporeal state is put on the lifestyle that influences eating habits and, in consequence, nutrition (*nutriție*). The article provides a first glimpse of the place that nutrition has in Romania by a conceptual map based on the data gathered through content analysis. The analysis included all the Romanian articles from media and scientific journals, published between 2014 and 2017.

Mediatic Coverage of Scientific Researches Published in the Republic of Moldova on “Nutrition” and “Food” Topics authored by Cătălina Croitoru and Elena Ciobanu define food, along with breathing, hydration and movement, as a conditional factor of human life. The study aims to analyse the media coverage of scientific articles in the Republic of Moldova, selected according to a common algorithm used for all the countries included in the study. The working tool is the content analysis grid for scientific articles. The keywords used “Nutrition” and “Food” were searched in the Romanian language during a reference time interval: 1 January 2014–1 January 2017. There are publications in the field of nutrition in the Republic of Moldova. Still, they are published in articles of national level, which are not promoted and viewed on scientific networks and websites.

Dan Podaru in “Figurative Reconstruction in Food and Healthcare Advertising” presents a series of resignifications and significant structural alterations of traditional symbolic elements, which presently are assigned with a new value according to a modern urban lifestyle. The ideas that construct the paper represent the result of observations occurring when interacting with young students upon various symbolic elements that young generations no longer decode or decode in a very different manner compared with the traditional interpretation that we have been generally accustomed. Symbolic reinterpretations occur with regard to the advertising domain, as well as to food consumption and health. If these new reconstructions and symbolic interpretations remained only at the level of ideas and advertising campaigns, without drastically influencing significant part of our daily choices, diet, lifestyle and health, we would not feel the need to challenge and follow the evolution of this phenomenon carefully. In return, as individuals’ perceptions and goods consumption are directly influenced by the structural changes of the current symbolic

communication (i.e. debates on natural vs. synthetically created goods or Omega 3 sources), it becomes compelling to reflect upon these aspects.

“The Thematic Coverage of the Nutrition Topic in Estonian Scientific and Mass Media Articles” of Kadi Lubi aims to understand the thematic coverage of nutrition topics in the Estonian scientific and mass media environment. Sources of inspiration for the analysis were gathered from modern understandings of audiences, media influences and individual responsibility in the health area. The research was conducted as a quantitative study, where Google and Google Scholar research found the analysis items. The structure and process of the research were done, and the research items were coded according to the predefined coding schemes of the research protocol. The analysis was performed in the Estonian language, and the search word “nutrition” (“toitumine” in Estonian) was used. The results revealed 27 mass media articles and 36 scientific articles where the nutrition topic was the main theme or strongly interconnected with the main issue. The most popular topic for mainstream media was related to healthy eating. The most popular scientific nutrition topic was associated with the development of eating habits. The second most covered topic for both general and scientific media was related to physical activity and nutrition, although contexts were different. The third most popular topic was related to different diets in general media and illnesses and well-being in scientific media. The conclusions about the results achieved and limitations of the study are discussed in the final part of the article.

Silvia Branea and Crînguța Irina Pelea provide “A Critical Analysis of Romanian Media Representations of Food. A Qualitative and Quantitative Perspective” in the context of fast social globalization, when the need to question whether food as an essential component of human life has specific representations in the Romanian media. The study has explored how food culture, diets, veganism and other food trends are framed in leading Romanian language newspapers and magazines and has identified possible future social trends in these directions. The authors used quantitative and qualitative research based on content analysis, which was conducted from 1 January 2014 to 1 January 2017, on newspapers and magazine articles written in the Romanian language. The main results emphasized the fact that Romanian journalists are highly interested in concepts such as “food healthism” and are prone to rely on a higher source of expertise or a public personality, to mould their personal opinion regarding arising food trends.

“Food Consumption Behaviour and Lifestyle—A Cross-national Study in Romania, Bulgaria and the Republic of Moldova” authored by Cristina

Bianca Pocol and Mihaela Mihai assumes that food consumption behaviour is determinant, as it impacts directly on human health. Paradoxically, modern people consume large quantities of food, but predominantly of poor nutritional value, instead of the recommended balanced diet. The young generation is the key to the health and well-being of society. Therefore, the present study relies on a survey applied on 2378 students in seven university centres from Romania, Bulgaria and the Republic of Moldova and focuses on revealing some decisive aspects of their food consumption behaviour in connection to their lifestyle trends, culture and traditions, shared values, economic and societal changes. On an overall basis, university students in this study display excessive consumption of refined carbohydrates (white bread, bakery products, industrial sweets), meat (including processed cold cuts, preserves) and unhealthy fats. A relationship was established between the culinary traditions of these countries, the unfavourable economic environment and students' food consumption habits. Moreover, their food consumption behaviour aligns to a generalized international trend of fast and cheap eating. An education campaign is thus vital in promoting healthy nutrition and lifestyle for students to exhibit an appropriate food consumption behaviour that would help them maintain their health and increase their academic performance.

The same threat of junk food and overweight is present in "Analysis of 'Food' and 'Nutrition' Phrases Occurrences in Polish Scientific Articles. Case Study: Overweight and Obesity Among Children." Dorota Dyksik focuses on the growing problem of overweight and obesity among children and its consequences. One of the ways to fight these problems is to pay attention to food and nutrition issues. The article is based on the analysis of Polish publications where "Food" and "Nutrition" statements appear, and then checking how many of them concern the overweight and obesity among children. The analysis of 128 scientific articles in the field of "Food" and "Nutrition" shows that only 10 of them tackle the important issue of overweight and obesity among children. Based on the analysis, several recommendations are stated, which allow shaping pro-health behaviours starting from early childhood.

Svetlana D. Hristova proposes in "From Nutritious Banks for the Poor to Top 10 Meals Against Love Pain—Food in Bulgarian Media as an Entertaining Zone" a longitudinal analysis of food and nutrition in Bulgarian online news: promotion of healthy eating lifestyle and recommended diets in the context of primary and secondary disease prevention. The media analysis of 77 articles (January 2013–January 2017) has been

juxtaposed against four discourse patterns: ethical, health, industrialization and entertainment frames. The researcher places the social dimension of weight bias and obesity stigma within the “ethical” framework, which is associated with shame and personal guilt. The “health” frame encompasses an integral mosaic of food and nutrition topics, cross-tabulated with three levels of prevention (primary level, i.e. balanced life and nutrition; secondary and tertiary level, i.e. fighting diseases through rich foods, vitamins and improved physical activity, etc.). The researcher noticed that content within the scrutinized articles is harmonious with the issues embedded in the governmental public health documents, that is, top health issues in the country are to a great extent voiced by media outlets (and these are obesity, diabetes and other non-communicable diseases). Within the “industrialization” frame, the author deploys the dichotomy of industrial foods versus natural foods, as well as food chain stores versus corner shops. Finally, popularizing healthy eating lifestyle as smart and trendy has been positioned within the so-defined “entertainment–educational” dimension. The author distinguishes a media discourse strategy aiming to change behaviours, based on disseminating messages on healthy eating, which means the quality of life.

Recent years have seen a great deal of academic interest in the study of food literacy. The chapter “An Argument for a Broader Definition for Food Literacy: Findings from a Systematic Review” by Bianca Fox and Valentina Marinescu reports on a systematic review conducted to identify all the academic articles proposing key conceptualizations of food literacy published between 2001 and 2019. The chapter provides new information regarding the way food literacy has been defined so far and argues for a broadening of the definition of food literacy to include media and digital skills. To our knowledge, this is the first study to identify gaps in literacy skills included in existing food literacy definitions.

In the chapter “Relationship Between Self-regulated Eating Behaviour and eHealth Literacy: A Confirmatory Factorial Analysis,” Diego-Oswaldo Camacho-Vega and Dalia-Merit Gonzalez-Sifuentes analyses the relationship between eHealth literacy and Self-regulation in the case of eating behaviour for young people. Results from the Pearson analysis indicated a correlation between eHealth literacy and the Self-regulation of eating behaviour for Mexican students. In addition, the study provides empirical evidence regarding the relationship between eHealth literacy and Self-regulation as a novel approach in health research.

2.7 CONCLUSION

The contributions gathered in this volume show that, in our society where food practices go far beyond the private and intimate sphere, the processes of publicizing food occupy a central place in the study of societal issues, representing a complex and essential phenomenon in individual and social life (Albala 2013). This collection also shows the interdisciplinary openness of work in the information and communication sciences. It is the public and media dimension of food that becomes an issue.

Beyond the classical approaches in sociology, for which food has a functional role (ensuring survival) or socio-symbolic (“Tell me what you eat, I will tell you who you are”), we emphasize the recent shift in studies on food. In many respects, this displacement is nourished by a more anthropological perspective which consists in seeing in the food phenomenon a situation in which identities, individual and collective, are negotiated and defined simultaneously. The most recent research (including this one) starts from the anthropological dimensions and the ambivalent nature of food, between pleasures and necessities, and the essential cultural differences, real or imagined, of its conception throughout the world.

This volume offers exploratory studies helping to interpret, understand and explain the complexity of reality and to identify the social actors and institutions involved in the process of shaping standards and representations of food and food culture, the numerous issues raised, their interrelations and their connectedness.

We hope that the articles published here will give readers a multifaceted perspective of communication and food research field. The articles published in this volume apply and bridge important theories, concepts and methods from diverse areas of communication science (such as the study of language and behaviour, interpersonal communication, group/organizational communication, media studies, intercultural communication and new communication technologies), as well as from the diverse academic fields of public health, health education and so on.

In the risk society, issues related to health promotion (campaigns for healthy living, a non-dangerous lifestyle, etc.), work stress and care services (see Mayère 2013, 2014) stimulate the self-empowerment of individuals and communities and the re-empowerment of governments—priority in the hypermodern consumerist society (Marinescu and Rovența-Frumușani 2019).

For cultural studies, it is probably necessary to take a step back and ask the big question: What is the ideology of food? There have been discussions about the ideology of hunger, of food production, etc., but is there a bigger ideological landscape that needs to be mapped? Is it possible to answer this question in any meaningful way without falling into the trap of grand narratives, or is it simply a matter of asking about ideologies concerning specific cultural iterations of nation, race, class, gender, sexual orientation, etc.? (Lizie 2013, 34)

Numerous avenues for further research are opened such as audience-reception research on the social/cultural uses of food (and food media) and communication-oriented research on the role of pleasure in food and food-media consumption (Lizie 2013, 35).

What is more, food experiences as embodied experiences that are personal, communal and collective always negotiate not only with ideals such as nation, identity, authenticity and tradition but also with emotions and connectedness. A full understanding of food-related norms and practices emphasizes their existential relevance. “A reflection on food, whose main function is to be destroyed by ingestion, could help to anchor contemporary theories of globalization in the physical, emotional, and imperfect dimension of the body, with its pains and its pleasures” (Parasecoli 2014, 437).

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The Analysis of Media Coverage and Scientific Literature on Food and Nutrition: The Case of Eastern European Countries

Valentina Marinescu

In modern societies, the resources commonly used by people seeking health, food and nutrition information are mainly magazines, newspapers, television and the Internet (Fox 2011; van Dillen et al. 2003; Wilson 2007). Researchers have argued that the media is a significant factor in gleaning how dominant and recurring representations shape public understandings of contentious scientific issues, images and metaphors (Conrad 2001; Petersen 2001; Knight et al. 2018). Scientific articles about how nutrition and food are communicated to the general public noticed that this type of information is not discussed appropriately in existing means of communication (media or popular science outlets). Also, they pointed out that this coverage has often been sensationalist, with the headlines not accurately reflecting scientific research and based on reporting preliminary research as a “breakthrough” (Keenan et al. 2001). But, as Jarlenski and Barry (2013) noticed because currently, news media provide a critical

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function in transmitting scientific information to the public regarding emerging health threats related to food and nutrition one has to assess both its content and its impact.

In proposing a research analysis, we started from Hellsten et al.'s (2010) thesis that food itself has become a political object that has drawn attention to the controversy and conflicts of interests that affect food choice and the structuring of public and media agendas.

The chapter presents the main directions for comparative analysis of media and nutrition at a second level: media representations of “food” and “nutrition”, on the one hand, and scientific articles on those issues on the other.

3.1 GENERAL APPROACHES USED IN THE STUDY OF MEDIATIC AND SCIENTIFIC COVERAGE OF “FOOD” AND “NUTRITION”

The analysis of media representations of foods has been applied to identify the most relevant opinions and motivations at the society's level, concerning health (Verriet and Leroy 2017) and disease (Woodruff et al. 2003; Boyd et al. 2009). When nutrition or food-related stories are included in the news media, they span a relatively wide range of topics. In magazines targeting different segments of the population, nutrition stories focus on varying topics (Friedman et al. 2011). For example, the most common issues in 40 national and local US news outlets over a decade ending in 2005 were fat intake and disease prevention or risk reduction (Wellman et al. 2011). Other prominent nutrition-related topics include the relationship between diet and disease, allergic reactions, weight loss, genetically modified foods and vitamin/mineral intakes (Hampl 2003).

The study of media coverage of food and nutrition was made from various perspectives, but the “canonical” one is the quantitative analysis of mass communication's content (Wilson 2007; Augoustinos et al. 2010; Hellsten et al. 2010; Andsager et al. 2015; Kininmonth et al. 2017; Dodds and Chamberlain 2017; Leroy et al. 2018). Research on food and nutrition representations in newspapers, television or online media was centred on issues such as sweet, non-alcoholic drinks (Bonfiglioli et al. 2011), sustainable food consumption (Van Gorp and van der Goot 2012), biotechnology (Lundy and Irani 2004), mad cow disease (Ruth et al. 2005;

Ashlock et al. 2006) or food products with trans-fat (Niederdeppe and Frosch 2009).

Framing theory was, in general, the favoured theoretical background for the quantitative studies of news media as regards food and nutrition (Goffman 1974; Tuchman 1978; Gitlin 1980; Iyengar 1994; Entman 1993; Reese 2001; Tewksbury and Scheufele 2009; D'Angelo and Kuypers 2010). Generally speaking, framing in the news media suggests that news texts are “a system of organized signifying elements that both indicate the advocacy of certain ideas and provide devices to encourage certain kinds of audience processing of texts” (Pan and Kosicki 1993, 55). In this respect, food and nutrition were seen as carrying not only a material meaning but also a cultural and historical relevance.

On the other hand, one could notice the fact that scientific research on food and nutrition has also increased dramatically in the last decades. Kelley and Kelley's (2019) research on “PubMed” made on a single day (10 May 2019), using as keywords “nutrition” and “meta-analysis” and the result, showed that there was only one citation in 1978 and 2743 in 2018 (Kelley and Kelley 2019). Despite those developments, scientists remain committed to the academic publishing model, with most relying on traditional academic journals and conferences as key tools to disseminate their research to academic communities (Wilkinson and Weitkamp 2013). But, as Wilkinson and Weitkamp (2013) noticed, more and more researchers recognise the media as a useful route to reach non-academic publics, and understand the role their press office can play in this process.

Both at the level of the study of media coverage and the identification of scientific articles on food and nutrition, one could notice the existence of a geographical imbalance and the lack of comparative researches. The existing comparative studies on Europe focused mainly on Western countries (Van Gorp and van der Goot 2012; Almiron and Zoppeddu 2015; Montagnese et al. 2015; Knight 2016; Atanasova and Kotevko 2017). As compared with the high number of research produced in Western Europe or the United States, the studies recorded on the topics of media and scientific coverage of food and nutrition in Central and Eastern Europe were rather scarce (Vicsek 2011; Chalupová and Prokop 2016; Gherman 2014; Stanciu 2015; Zachová et al. 2019). In our opinion, it is evident that there is a need for information about food and nutrition as they were covered in media and presented in scientific articles in the case of the countries from Eastern and Central Europe.

The research questions (RQ) at the basis of the comparative analysis were:

- RQ1: What are the frames used in the media coverage of “food” and “nutrition” in Central and Eastern Europe?
- RQ2: What are the main characteristics of scientific research on “food” and “nutrition” in the Central and Eastern European countries?

3.2 THE METHODOLOGY OF THE RESEARCH PROJECT

As the primary method of research, we chose quantitative content analysis (Krippendorff 2018; Holsti 1969). According to the existing definitions, content analysis is, at the same time, “a technique which lies at the crossroads of qualitative and quantitative methods” (Duncan 1989) and a technique that “allow(s) a quantitative analysis of seemingly qualitative data” (Smith et al. 1996). The content analysis was used in the study of communication about food and nutrition in various researches (Hackman and Moe 1999; Potter et al. 2000; Kondracki et al. 2002; Lockie 2006; Bonfiglioli et al. 2011; Jarlenski and Barry 2013; Knight 2016).

For the comparative analysis, we choose to focus our research on several countries from Central and Eastern Europe, namely, Bulgaria, Estonia, Moldova, Poland and Germany. Those countries shared not only a shared recent history (they are all former communist countries) but also similar cultures and customs (even in the fields of nutrition and food).

The media study sample comprised all articles presented in the search results for the online articles on food and nutrition published between 1 January 2014 and 1 January 2017. For Eastern European media, we were not granted access to LexisNexis Academic, as it was the case for other studies (Roche 2002; Cahill et al. 2010; Hellsten and Nerlich 2010; Meyers and Abrams 2010; Bonfiglioli et al. 2011; Shan et al. 2014; Rim et al. 2014). This leads us to use the Google search engine by introducing keywords (in national languages), a procedure which was similar with that employed in other studies (Birnbrauer et al. 2017; Meisner 2017). We analysed the articles identified in the first ten Google Search pages for every mentioned keyword.

In the case of scientific articles, the procedure was similar. We used Google Scholar as the main engine for search. The search was done for the period from 1 January 2014 to 1 January 2017. The scientific articles

found on the first ten pages of the Google Scholar were included in the sample.

Both for media sample and for the example made of scientific articles, the main keywords used in the online search were “alimentație” and “nutriție” (in Romanian language), “toitumine,” “toit” and “söök”(in Estonian language), “żywność” and “odżywianie” (in Polish language), “Ernährung” (in German language) and “храна” and “хранение” (in Bulgarian language).

The analysis grid comprised 45 items, referring to the characteristics of media in which the article was published; the main components of images and videos published together with the article; the main topic of the article, the presence (or the absence) of controversial issues; the source(s) of the article, the citation of persons and documents; aspects related to food and nutrition mentioned in the article; types of food presented in the article, brands of food presented in the articles and the images or videos published with it; types of dietary and non-dietary food presented in the article; main physical characterisation of the persons presented in the article; the presence (or the absence) of advice related to health, healthy food, diets and diets as they are covered in the article; main diseases presented in the article; the main appeal of the article and the general tone of the article.

The grid of analysis for scientific articles was made of 29 items. Those were the name of the journal in which the article was published; the issue in which it was published, the name(s) of the author(s), the title of the article and the year of publication; the academic field, the aims of the study, the research questions and type of design used in the study; the characteristics and size of the sample analysed in the research hypothesis; the methods used; the instruments of gathering the data; the main characteristics of results’ presentation; the presentation of ethical issues and bias involved in the research and the future implications of the research.

3.3 CONCLUSIONS

In designing a comparative analysis on the themes of interest, we agreed with Dodds and Chamberlain (2017) that “food and health are all constructed as intricately related in contemporary nutritional science discourses, and this shapes how food is understood in the developed world.”

This is of extreme relevance in the Eastern part of Europe, since, as the existing literature (Ayooob et al. 2002) suggested, media are considered worldwide a primary source of information regarding health and nutrition

by the general public. In our assessment, this situation is strange, taking into account some reports that suggest media messages are not necessarily consistent with current official medical guidelines related to food and nutrition (Ostry et al. 2008), along with what constitutes “healthy eating” is often poorly defined (Wills et al. 2013). Much more, there are studies which showed that nutritional and food-related messages have been reported as changeable and confusing by the general public (Madden and Chamberlain 2010; O’Key and Hugh-Jones 2010; Prior et al. 2011). The same could be true about the way in which the scientific discoveries are presented to the experts and the general public.

Comparative research on “food” and “nutrition,” in Central and Eastern Europe, can offer valuable results that point to facts that each culture possesses. A repertoire of symbols and worldviews that its members can use as a toolkit to attribute meaning to the various events and issues with which they are confronted (Gamson and Modigliani 1989; Swidler 1986).

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The Thematic Coverage of the Nutrition Topic in Estonian Scientific and Mass Media Articles

Kadi Lubi

4.1 INTRODUCTION

The increase of general welfare in Western societies has raised the health risks related to food and nutrition from obesity and heart diseases to special diets (e.g. veganism) and the ways of how food is produced (e.g. how organic and ecologic the products are). Despite different angles, health, appropriate nutrition, the topics of potential malnutrition and severe health problems are in focus (WHO 2009). Therefore, nutritional knowledge is influenced by presented information and by the ways nutritional topics are provided to people.

Societal changes have reshaped several institutions, including media. Media is not only a mediator of the social world, but it has become an essential factor in the construction of the social world (Couldry and Hepp 2017, 15). Mediatisation reflects the ways how “the social world (is) fundamentally interwoven with media” (Couldry and Hepp 2017, 16) and

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also involving the areas of health and illness and discussions about healthy and unhealthy choices or lifestyle. This enables media to determine “right and wrong” understandings, approaches or behaviours and thereby, to create public perceptions. Digitalisation enables media to involve much more than the traditional understanding of the mass media, that is, involving various digital communicative platforms that diversify the influence of mediatisation even further (Couldry and Hepp 2017, 18). Thus, the general change of the role of media influences different aspects of the communication of health topics, including nutrition.

Several types of research (Lockie 2006; Wilson et al. 2014; Atanasova and Koteyko 2017) focusing on the health messages in the media have shown that media organisations have the power to determine the perceptions and meanings of health and nutrition-related vocabulary, indicating the direct consequence of mediatisation. Media can determine the perceptions, understandings and meanings about healthy and unhealthy. However, the approach is over-simplistic and dualistic in the dimensions “good-bad” (e.g. organic foods are seen by default as safer and more natural, and the others are seen as artificial, untrustworthy and threatening) (Lockie 2006). There are opinions (Wilson et al. 2014) claiming that due to the accessibility and availability of mass media, public health professionals should be more proactive and cooperate with media. This would allow public health professionals to suggest areas of interest for investigation and provide the necessary information, because of their ability to affect consumers’ health through the ways they engage with the media (Wilson et al. 2014). Research on the role of social media in the context of obesity has emphasised the need for balanced messages in order to avoid individual-oriented stigma and blame (Chou et al. 2014). There is a need for careful selection of language and visual content in obesity-related health campaigns (Puhl et al. 2013). Health campaign messages should be simple, straightforward and understandable for the target audience (Randolph and Viswanath 2004). Criticism in involving health professionals has risen in terms of the structure-agency debate, where it has been questioned whether structurally shaped top-down health messages formed by the “elite teams” of the experts express real individual choice (Cockerham 2013, 128; Dutta 2015, 220). It also raises the question about the role and level of medicalisation.¹ How does it relate to the concept of individual responsibility and how far it should go (Conrad 1992, 209; 2007, 4)?

In a changing media environment that defines any user as a potential content creator, the issue of the source’s credibility is of utmost

significance. As in the case of other topics, food risk communication processes start with the search for appropriate sources, and both institutions and individuals are identified as sources (senders) of information (McCarthy and Brennan 2009). Due to the continuously increasing role of ordinary people as content creators, the meaning of a source and its credibility is changing. Researchers (Berry and Shields 2014; Priester and Petty 2003) have shown that the overall trustworthiness of the message is tightly related to the spokesperson and the source. Berry and Shields (2014) have found in their investigation, about the credibility of health messages and related spokespersons, that messages presented under non-profit source were considered more credible compared to those presented as commercial advertisements. Additionally, it is more beneficial for a commercial company to discuss health rather than appearance outcomes (Berry and Shields 2014). Similarly, Priester and Petty (2003) have shown that attitudes of message receivers are influenced by the trustworthiness of the endorser and the perceived trustworthiness of the source.

Secondly, the importance, relevance and prominence of science have been undermined with the rise of “post-truth” and “alternative facts”. And this, as Ackland (2017) describes it, is because everyone can be a content creator, thus “aspects of our current social environment promote post-truth, including the way the press communicates with the public”. Although the perceived credibility regarding the source may increase because of the increase of “people like me” as opinion-leaders, the actual and factual credibility may decrease instead.

Derived from the overview above, the aim of this chapter is to understand the thematic coverage² of nutrition topics in Estonian scientific and mass media landscape, to examine if and how local scientific and mass media use their power to determine the frame³ and tone of the concept of nutrition. To achieve this goal, the following research questions were raised: (1) What are the main themes related to the topic of “nutrition”? (2) In case there is any thematic distinction between scientific and mass media concept of the topic nutrition, what is it about? (3) Considering the neoliberal expectation to take individual responsibility for one’s health, where are the primary shortages of information or areas of improvement regarding the “nutrition” topic in local scientific and mass media? Answering to these research questions allows performing the primary mapping of the coverage of the nutrition topic in Estonian local scientific as well as mass media articles.

4.2 ESTONIAN CONTEXT

Concerning the current study, it is necessary to highlight the situation in Estonia. Regarding scientific articles, it is important to note that despite Estonian being an official language, the main language of science is English. Estonian universities have acknowledged the need for publishing scientific articles in English in order to be visible and relevant in the global world of science. The majority of doctoral theses are written in English, but universities also offer both full and partly English-based master courses. The foundation of a doctoral thesis is often the series of three peer-reviewed scientific publications that must be published for completing doctoral studies. Due to this requirement, there are also a limited number of scientific journals in the local language and only one is dedicated to health and medical sciences, Estonian Doctor (*Eesti Arst* in Estonian).

Regarding mass media, it is essential to highlight the usage of the Internet, social media and technology, which in general is relatively high in Estonia. The national representative survey “Me. The World. Media” from 2014 stated that almost all people from the younger generation use computers and the Internet daily, but this tendency is relatively high also among the middle-aged and elderly generations. A total of 46% of people aged 65–79 have Internet connections at home, and 42% use the Internet regularly. Among the middle-aged group, these percentages are 84% and 82%, respectively (Vihalemm et al. 2017, 251).

4.3 METHODOLOGY

4.3.1 *Data Collection*

The majority of the search criteria were familiar and described by the general project (see Chap. 3 in this volume), exceptions are explained below.

At first, the proper search word for both scientific and mass media articles was tested. The search word “nutrition” (*toitumine* in Estonian) over the word “food” (*toit, söök* in Estonian) was selected for the final search because it provided items of analysis in Estonian for both kinds of articles. After selecting the search word “food” (both synonyms) in Google Scholar, the search results for scientific articles provided lots of articles in different languages, including in Hungarian, Russian, English and Turkish. On the first page, there was only one article in Estonian. Although the

search for “food” regarding mass media articles provided results to analyse, the decision was made to use “nutrition” for this search in order to perform comparative thematic analysis between different types of articles.

The data collection was performed via Google Scholar for scientific articles and via Google for mass media articles. The search for scientific articles was performed according to the predefined scheme. To search mass media articles, the search word “nutrition” was inserted together with the additional search criteria “news” (*undised* in Estonian). The reason lies in the fact that the focus of the analysis was on the published news articles, but the Estonian version of Google search has no “news” section. Thus, it was necessary to add it in order to minimise the amount of the results where the search word is only mentioned without meaningful context. The rest of the search process followed the general process of the project.

4.3.2 *Data Analysis*

The search results were coded according to the predefined coding scheme described by the general project (see Chap. 3 in this volume). Due to the low number of articles and their rather poor content, the primary data analysis was performed with MS Excel. The analysis aimed to detect the range of articles dealing with human nutrition topics. Based on the first detection, the analysis was followed by a thematic analysis that contained the elements of grounded theory. The further analysis aimed to identify subcategories, the number of articles under each subcategory and the thematic distinction between scientific and mass media. The coding scheme was developed deductively after reading the texts. In the coding, the text units were divided into the categories two axes: one of the axes described the prevalent themes of the articles, and the other axis described the position of “nutrition” in the article and the existence and content of recommendations and instructions. The concrete inclusion criteria for different parts of the analysis are explained under the “Results” of the respective section.

4.4 RESULTS

4.4.1 *Scientific Articles*

The total of 99 original articles was found from a ten-page search of Google Scholar. One of the articles was other-language copy and therefore not counted for analysis. Eighty-five articles out of 99 articles (i.e. 86%) were a different kind of school assignment. There were seminar papers, class assignments and bachelor and master thesis. There were no doctoral theses. Most of the school assignments (97%) were written in two universities: at the University of Tartu (59%) and the Estonian University of Life Sciences (38%). These two universities are among the biggest ones in Estonia, and both are related to the research of different kind of nutrition topics. Other sources of the articles were Estonian national journal for doctors (Estonian Doctor) with 6% of the share and different kind of health reports with 8%. The list of reports included “The Annual Report of Health Statistics 2015” (published by National Institute of Health Development), a review about the interconnections between the nutritional status, diet and dietary supplements and autism (a translated Polish-origin article), health behaviour of school-aged children (HBSC study), an overview about the sugar-sweetened beverages’ tax in Estonia (Journal of the WHO regional office for Europe, *Public Health Panorama*) and a special brochure from the World Bank Group discussing integral treatment management and cooperation between different parties.

The majority of the articles (89%) were divided among seven academic fields: zoology (28%), general medicine (17%), public health (13%), psychology/psychiatry and land improvements (both 9%), agriculture (8%), and trade and economics (5%).

The articles from zoology were left out from the thematic analysis. Although there were “nutrition”—articles in the area of general medicine, it appeared that nutrition as a main topic appeared only in two articles. In the rest of the articles of general medicine, nutrition was only mentioned. Most of the articles directly focusing on human nutrition proved to be in the areas of public health and the combined area of psychology/social psychology/psychiatry. The research in the areas of trade and economics provided overviews about the improvement of nutrition about how to promote and develop breakfast service in Estonian spas. Among 100 scientific pieces, there were no articles on nutrition in the area of endocrinology, diabetology, nutrition and metabolic diseases. This does not necessarily

mean the lack of the articles of this kind; just these articles may be likely published in English, not in Estonian.

For the thematic analysis, the total of 42 articles was included from the areas of general medicine, trade, economy, psychology, social psychology, psychiatry and public health, but 16 articles from the area of general medicine were excluded due to issue explained above, so the total number of articles analysed was 27. One-third (33%) of the articles analysed the development of eating habits. Most of the research was performed with children from toddlers to teenagers. The studies also involved the role of parents' and teachers' knowledge and contribution to children's healthy eating.

About 26% of the articles analysed the interconnections and the role of nutrition and physical activity. Three were performed on children, two on adults and two focused on the sports' topics.

The third group of articles was related to the relationship between nutrition and health and illness. Health and well-being articles provided some overview of spa service, the healthiness and further improvements of provided spa breakfasts. Illness-related articles provided some overview and recommendations of how to eat during different health problems, for example, Alzheimer's disease (AD), autism and problems of obesity. It should be noted that while an AD-related article was a review article written by an Estonian neurologist, the article about autism and its interconnections with the nutrition was a translation article and available on the public website of healthy eating and nutritional counselling.⁴ It may be argued if a translated non-Estonian origin article can be technically categorised as a local (i.e. Estonian) scientific article. However, since the study protocol did not define any exclusion criteria related to the originality, this item was included in the analysis.

The articles in the area of psychology discussed the interconnections with body mass index (BMI) related to self-assessment and the relationship between willpower and academic performance. There was one article discussing consumer behaviour concerning their awareness of whole grains efficiency and two articles were dedicated to the examination and the influence of different taxes to unhealthy foods (e.g. sugar-sweetened beverages and unhealthy food in general). The rest of the topics (willpower, governmental/tax, consumer awareness) were slightly covered, ranging from 4 to 7% of total analysed units.

4.4.2 *Mass Media Articles*

From the total of ten pages, the search revealed 70 articles appearing in six main channels and matching with the searching criteria. As Google stated, the other articles were very similar to these 70. The search was repeated with the inclusion of the articles that were initially left out by the search engine, but there appeared no additional articles for the analysis. Several results were referring to one patient portal with the “ask your question” advertisement, but these entries were left out in order to not create artificial coverage on the nutrition topic. Out of 70 articles, online and news websites were the most popular with the total share 90%, but most articles (73%) were from different kind of online websites. Traditional mass media sources represented the rest 10% of all the articles. There were six types of articles among the search results: simple news (57%), the review articles (29%), the rest of the 14% (3–4% each) of the articles were divided between reportages, interviews, overview articles and articles of analysis.

For the content analysis, the main inclusion criterion was the role and the position of the nutrition topic: nutrition had to be the main or the secondary theme. A total of 36 articles were included in the thematic content-related analysis. Three significant areas covered 92% of the total amount of the articles—proper nutrition, different types of nutrition and physical activity and nutrition. Under the different types of nutrition discussed in, there were also reviews that introduced the principles of healthy eating in the workplace or after bariatric surgery.

In the area of physical activity and related nutrition, the topics covered nutritional aspects in case of participation in marathons or about jogging in general, the principles of eating and nutrition-related to any kind of physical training at any time (i.e. how to eat and train during vacation, and how nutrition influences the post-training recovery, etc.).

4.5 THE THEMATIC DISTINCTION BETWEEN SCIENTIFIC AND MASS MEDIA COVERAGE

The analysis revealed similarities and differences between the thematic coverage in scientific and general media. The main difference lies in the focus of the articles—in general, the mass media articles contained practical information and/or instructions to implement real-life changes. Scientific articles (except theses and school assignments) did not include recommendations and/or instructions.

The first most covered theme in the scientific coverage was about health behaviour. This differed from the mass media articles where the most popular topic was related to proper nutrition.

The second most covered area in both scientific and mass media articles was related to nutrition and physical activity. However, in the scientific articles of physical activity, “nutrition” was mainly only mentioned in the article and did not have much relevance. The articles of mass media had a practical focus and thus, even when discussing physical activity as the main topic, “nutrition” was equally relevant and provided support in understanding the processes of physical activity and its interconnection with the role of nutrition.

In the area of scientific articles, the third most popular topic was related to nutrition, well-being and illnesses. The area of well-being covered mainly nutrition in a spa environment and how to provide healthier food in the context of general health. The area of illnesses was treated like in the articles of physical activity—“nutrition” was neither the main topic nor strongly connected with the topic of the article, but in the majority of cases it was just mentioned as a subsidiary theme. The exceptions were the articles about Alzheimer’s disease and autism, where the overview of the interconnections and relationship between the diseases (symptoms, exacerbations, progression, etc.) and nutrition was presented.

4.6 DISCUSSION

The current study aimed to perform the primary mapping of nutrition articles published in Estonian scientific and general media. According to the first research question, the analysis dealt with the identification of nutrition topics in scientific and mass media. Despite the wide variety of nutrition-related areas, the amount of the articles focusing mainly or strongly on the area of human nutrition (healthy or unhealthy eating) was rather low among the items searched. Obesity is claimed to be a significant problem (Atanasova 2015), but although there were articles about different kind of diets, there were no articles that would have addressed the issue of obesity or the reasons, solutions and instructions related to it. This does not necessarily indicate the lack of articles discussing the relationship between obesity and nutrition—could be that obesity-related nutrition articles occur after page ten of the search.

The second research question aimed to assess and compare the nutrition topics in scientific and mass media articles. Principal thematic

differences among the top theme became noteworthy—in scientific media, the studies from psychological origin prevailed, while in mass media, the focus was on healthy eating. To draw a very general conclusion, scientific nutrition research focuses more on the research of subconscious level of nutrition and the development of eating-related behaviour, which helps to understand the processes of how people create their body images and health problems derived from nutritional habits. Based on the example of children and adolescent girls, the role of different factors, including media as a sociocultural factor, is vital in the development of body image (Wertheim and Paxton 2012) and maybe risk factors for body dissatisfaction and lower self-esteem in older age (Smolak 2012). Levine and Maine (2010, 53) add that there is “modest, but significant positive correlation between the level of exposure to mass media and the important triad of body dissatisfaction, thin-ideal internalization, and disordered eating”. Therefore, the results of scientific research about the development of eating habits and related issues must be more visible in local scientific and general media, which should support message creation processes about healthy eating or nutrition topics in general.

In addition to the content, the issue of the selection of healthy eating spokespersons should be considered in order to build and maintain trustworthiness (Berry and Shields 2014). Trustworthy spokespersons can lead to more non-thoughtful attitudes (Priester and Petty 2003), which in terms of healthy nutrition and overall negative influence of mass media to the healthiness of the consumed food could be a positive direction. Thus, to contribute to the usage of the holistic approach on nutrition (Hauschka 2002, American College of Healthcare Sciences⁵), a stronger connection between scientific research of the development of eating habits and healthy eating recommendations can be formed.

Third, this study aimed to discover the areas of improvement of nutrition topics in terms of individual responsibility, which can be related to general well-being, malnutrition and clinical conditions. Considering the latter, this research showed that there are few articles available covering the interrelations between nutrition and any (chronic) illnesses. The information was presented mainly in the scientific articles and may, therefore, remain unavailable to the general public who could need it. The areas of a different kind of nutrition were covered in mass media, and the topics of well-being were limited to scientific research about nutrition in spa hotels. Despite the nature of the source (i.e. scientific or general media), the similarity of the articles was in their general tone—information was presented

in a slightly patronising and rather a strict way of recommendations and instructions. In order to support the implementation of these recommendations, potential individual barriers (e.g. the aspects of a person's practical living arrangements or the perception of a particular role model) that may hinder the implementation of healthy practices should be taken into account (Steinbrook 2006; Lubi 2019). Therefore, it seems that the significant shortage is related not mainly to the available information in general but to the aspects of the content that would make it easier to adopt.

To improve knowledge about nutrition topics, it is necessary to increase the number of scientific articles about nutrition and related issues in the local language. The availability of the results of local (language) science could contribute to the availability of evidence-based knowledge and improvements of local mass media content about nutrition and related issues.

4.7 LIMITATIONS OF THE RESEARCH

The main limitations of the research were related to searching restrictions, that is, the usage of Google and Google Scholar, the restricted searching word “nutrition” and the limitation to use the results from first ten pages. It is noteworthy that if the Google search had been performed without the additional “news” requirement, probably the amount of “nutrition” items would have been higher. However, if the search had been without additional “news” criteria, there would have also been items that could be categorised as any kind of advertisements (e.g. books and general) which would not have given enough input for more meaningful analysis. This issue highlights the importance of the precise target of correct search words or phrases, which would result in the more appropriate evaluation of the whole research. Therefore, it was not possible to give any generalisations or statistical analysis. This disables making conclusions regarding the low representation of television and radio about nutrition topics. The limitation for the overall conclusion was also related to a low number of total items (99 for scientific and 70 for mass media articles).

Content-related limitations appeared in the area of scientific articles. There are not enough scientific nutrition articles in the Estonian language, but this may not be generally true regarding nutrition-related research and publications performed by Estonian scientists. The problem was content-wise related to the search word “nutrition”, which is very general. Thus, there were many scientific and mass media results that were not suitable

for the analysis, but still appeared among the results. Additionally, as the Estonian version of Google does not have the subsection of “News”, it was necessary to add it to the search criteria, which might have influenced the final list of search results. The future development of the research should consider the usage of the searching word in combination with different other searching words (e.g. “nutrition AND obesity”) in order to provide more precise and relevant results.

Nonetheless, the preliminary mapping gives indications and ideas for the development of future research.

NOTES

1. Medicalisation marks the penetration of rules and criteria used in medicine—as one subsystem of society—into the daily processes of other subsystems of society, such as economics and governance, that is, daily issues are treated as diseases (Conrad 2007, 4).
2. In the context of the current article, the term *thematic* is used as a synonym for *topic* and not as any kind of reference to the qualitative thematic analysis.
3. Media framing indicates how any (health) issue should be understood and addressed (Atanasova and Koteyko 2017).
4. Available at: <http://terviskool.ee/autism-ja-toitumisteraapia>. Accessed 16 November 2019.
5. American College of Healthcare Sciences. Available at: <https://achs.edu/program/bachelor-science-holistic-nutrition>. Accessed 16 November 2019.

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Analysis of “Food” and “Nutrition” Phrases Occurrences in Polish Scientific Articles: Case Study—Overweight and Obesity Among Children

Dorota Dyksik

5.1 INTRODUCTION

Each year the number of overweight and obese people is growing. In some countries, there is even a debate on an ongoing obesity epidemic. This problem affects not only adults, living in both constant hurry and forgetting about proper nutrition and a healthy lifestyle, but also children and adolescents are facing this problem. The consequences of obesity are serious health problems that need to be addressed. Untreated obesity leads to the development of cardiovascular diseases, type II diabetes, hormonal disorders and metabolic syndrome and also increases the risk of developing some cancer.¹ It has been shown that an obese child aged 10–13 years is 6–7 times more likely to experience obesity also in adulthood (Obuchowicz 2005, 9). “Proper child development and good

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health during childhood and youth are a resource for health and quality of life in the coming years. Certain diseases and disorders that have appeared in childhood persist throughout life There are diseases that appear in adulthood, and their roots are in the first years of life” (Woynarowska and Oblacińska 2014, 41). The intervention should concern the reduction of excessive body weight, health-oriented education and lifestyle changes, including physical activity and healthy nutrition.

Nutritional education, following the adopted definition, is associated with the regular transfer of knowledge about food and nutrition, based on current and proven results of scientific research. It can be characterised in two ways: institutionally (i.e. by various types of programmes at schools) and popularly (i.e. dissemination through social campaigns, press, television) (Gertig and Gawęcki 2001).

The issue of “Food” and “Nutrition” is also the subject of discussion among researchers from many scientific disciplines: from medicine, sport to psychology and pedagogy. Therefore, this study aims to determine the number and nature of publications appearing in the field of “Food” and “Nutrition”, then to check how many of them concern the overweight and obesity among children. Another objective is to summarise the recommendations regarding prevention, which allows shaping pro-health behaviour starting from early childhood. This knowledge highlights a particular aspect of pro-health behaviour of Poles, thus facilitating the implementation of tailor-made programmes against overweight and obese children.

5.2 OBESITY AND OVERWEIGHT AS A RESULT OF IMPROPER DIET AMONG CHILDREN: STATISTICS AND SUPPORT PROGRAMMES

In medical terms, obesity is interpreted as a condition characterised by an increase in body mass through the increase in body fat (over 30% and 25% of body mass for woman and man, respectively) caused by hypertrophy and/or hyperplasia of adipocytes (World Health Organization 2005). Authors Wąsowski, Walicka and Marcinowska-Suchowierska argue that the mass and composition of a healthy adult’s body, “who is in a given environment, exhibits a relatively stable body mass with only a few percent fluctuations”.

They also state that “there are mechanisms in the body that ensure the energy homeostasis, obeying the equation: energy accumulated equals to

the energy acquired equals to the energy consumed, and obesity is the result of a positive energy balance.” The positive energy balance results from a decrease in physical activity and an increase in the consumption of high-calorie products (Wąsowski et al. 2013, 304).

The problem of adult obesity has been known for a long time. Among children, these trends have been noticeable for only a dozen or so years. For many parents, obesity is still not considered a disease. They often disregard the problem, even considering that if the child is “chubby”, it is considered healthy (Sikorska-Wiśniewska 2007, 71). However, obesity is a threat to life and belongs to the most common diseases in developed countries. Observations carried out for several decades indicate a steady increase in the number of obese people (James 2008, 336–352). According to the WHO, around 1.6 billion people in the world are overweight, while obese people are over 522 million. Obesity is no longer a medical problem, being the main reason of 10–13% of deaths in Europe, but also an economic issue—costs related to this problem account for about 5% of expenditure on health care in the United Kingdom, while in other European countries it ranges from 2% to 7% (Wąsowski et al. 2013, 304; WHO 2005, 1–4).

Among both children and adults, the most common (over 90%) instances of obesity are diagnosed as simple obesity (monosymptomatic, idiopathic, primary), which is not accompanied by other diseases. It is the result of an imbalance between the amount of energy delivered from food and the one required by the body. This type of obesity is often genetically determined—excess body mass is common in the rest of the family members, being probably due to the low rate of metabolism. A special role in the evolution of obesity is attributed to environmental factors:

Eating can be a way of escaping from stress (divorce of parents, family unhappiness, sexual abuse, failure at school), physical activity is very limited, the family has an abnormal way of eating. For the development of simple obesity particularly predisposed are children from families whose members have excess body weight and adolescents during puberty. (Sikorska-Wiśniewska 2007, 74)

The obesity of youth is caused by slowing down the growth rate, diminishing energy demands. Noticeable at this time is also the increase in appetite, leading to the accumulation of fat, which will become a source of energy during the whole adolescence period.

Another type of obesity, called secondary obesity, is the result of diseases, including endocrine diseases, nervous system diseases, genetic defects or a consequence of chronic treatment (Lange et al. 2001, 295–297).

Proper nutrition, in combination with physical activity, is necessary for maintaining and strengthening health in all its stages. Abnormalities in nutrition are the cause of many mental and psychosomatic disorders. Children who are overweight are usually characterised by low self-esteem and consider themselves unattractive and inferior in an environment where the ideal is a slim girlish and muscular boyish figure. The report on healthy nutrition in schools, presented on September 19, 2017, by the Supreme Audit Office (pol. *Najwyższa Izba Kontroli*, NIK) shows that in the school year 2015/2016, the percentage of pupils with abnormal body weight (i.e. overweight, obese and underweight) was estimated at 22%, that is, every fifth child.² The trend in question has not been suppressed by numerous programmes promoting a healthy lifestyle and educational activities that shape proper eating habits among pupils. As indicated by the NIK, the effectiveness of these programmes was influenced, among others, by the availability of unhealthy products in some school shops, as well as giving schoolchildren meals that often exceed the standards of nutrition for children and adolescents (characterised by too high content of fat, proteins and carbohydrates and excessive amount of sodium). NIK additionally draws attention to recognising the needs in the field of child nutrition. Even though “in the audited schools, the Body Mass Index (BMI) was carried out annually, none of these institutions passed the obtained results to the supervisory authority”.³ As a result, local governments were not able to recognise the needs and problems related to nutrition among children.

According to the Director of the Institute of Food and Nutrition (pol. *Instytut Żywności i Żywienia*, IŻŻ), prof. Mirosław Jarosz:

We live in a critically important period for the health of Polish society, and the decisions we make today will affect the life and health of our children and grandchildren. There is no turning back from an acute confrontation with a lifestyle which, due to inadequate nutrition and lack of physical activity, contributes to such a dramatic obesity of Polish children. And there is no excuse for neglect in this matter. The Institute of Food and Nutrition reminds: the time for discussion has ended, now it is time to move on to a total offensive, because otherwise the development of civilization will stop.⁴

Several programmes have been launched in Poland with the aim to deal with the problem of obesity among Poles, in particular among the youngest. One of them is the National Health Programme (pol. *Narodowy Program Zdrowia*, NPZ) scheduled for 2016–2020 (Council of Ministers 2016). Among the NPZ main operational objectives is to “Improve the nourishment, nutrition and physical activity of the society”. Several actions have been planned under this objective, including information and education activities that promote a healthy lifestyle in various social groups; creation of a nationwide centre of nutritional education and a healthy lifestyle; ensuring access to sports facilities and physical exercises; and supporting families with obesity problems (i.e. through the creation of therapeutic teams, dietary, psychological and medical assistance).

Another programme on behalf of the Ministry of Health is the *Zdrowy uczeń* (Eng. “Healthy Pupil”) programme.⁵ The health of children and youth under this particular programme is monitored by primary care doctor, at the clinic; dentist, at the clinic; and a nurse of the teaching and education environment or a school hygienist, at school. The tasks of an environmental nurse or hygienist include screening tests (eye, hearing, height, body weight, posture); help pupils deal with illness or disability; help in maintaining physical condition and well-being; providing advice on lifestyle, self-observation and self-care; cooperation with the management and teachers on matters related to nutrition, pupils safety, hygienic conditions at school and health education.

The *Dziecko z cukrzycą* (Eng. “Child with diabetes”) programme is also worth noting. This programme consists of training for pre-school educators and teachers.⁶ Also, information brochures for children at various age ranges have been created within the programme. Also, different cities of Poland organise various types of programmes that support the fight against obesity and overweight among children. An example is the programme “Prevention of overweight, obesity and other disorders of the puberty period among children and adolescents”.⁷ The programme aimed to limit the number of overweight and obese children and adolescents and to increase awareness of health threats resulting from poor eating habits and lack of physical activity, as well as shaping healthy behaviour.

Another meaningful governmental action against obesity among children is the prohibition of the sale of unhealthy food in schools, signed by the president of Poland in 2015. The purpose of this law was to restrict children’s access to unhealthy food, containing a significant amount of ingredients harmful to their development.

5.3 AIM OF THE STUDY

This study aims to characterise the state and diversity of scientific publications in the field of “Food” and “Nutrition”, with particular emphasis on those that concern issues of overweight and obesity among children. This work attempts to indicate similarities and differences between the perspectives of experts and scientists and implemented government projects in the fight against childhood obesity.

5.4 METHODS AND MATERIALS

The research was carried out based on the analysis of scientific publications in the field of “Food” and “Nutrition” on the top ten pages of Google Scholar. In the “custom scope” section, the time interval was set: 2014–2017. A total number of 128 publications were analysed.

In order to perform a quantitative analysis, each article was described by a carefully designed grid of analysis, containing the following items: (1) name of the journal, (2) issue, (3) authors, (4) title of the article, (5) publication year, (6) country, (7) academic field/discipline, (8) clearly stated aims of the study [yes/no], (9) aims of the study, (10) clearly stated research questions [yes/no], (11) research questions, (12) design [quantitative/qualitative/combined/meta-analysis/review article], (13) locations of the study, (14) sample characteristics, (15) size of the sample, (16) clearly stated hypothesis [yes/no], (17) hypothesis [list], (18) clearly stated methods of research [yes/no], (19) methods of research, (20) clearly stated instruments [yes/no], (21) instruments [list], (22) findings presented [clearly and detailed outlined/presented as a general text/missing/vague], (23) findings [list], (24) clearly stated ethic and bias issues [yes/no], (25) ethics and bias issues [list], (26) clearly stated implications [yes/no], (27) implications [list], (28) clearly stated comments [yes/no] and (29) comments [list].

5.5 RESULTS

The most significant number of analysed articles related to “Food” belongs to the academic field of *psychology*—28%. In second place (according to the academic field present within the grid of analysis) there is *general medicine* with 18%, followed by *trade* and *economics* accounting for 15% each. It is worth noting that 24% of analysed scientific articles were not categorised

according to the grid of analysis. The additional academic fields, not included in the grid of analysis, are tourism, culture and philosophy with 38%, 37% and 25%, respectively.

At this point, it is essential to present the most common findings presented in the analysed scientific articles grouped within the discipline of psychology.

These findings concern psychological mechanisms to deal with excessive food, emotions and their effect on body weight, culinary photography and its impact on customer manipulation, eating disorders of different age groups, and reduction of stress of a patient with obesity and implementation of collaboration between a psychologist and a dietician.

The implications related to the abovementioned findings include appropriate diagnosis of these disorders and their differentiation increases the chances of adequate treatment of obese patients. Analysis of culinary photography revealed that thanks to the knowledge of human psychology it is possible to manipulate the image so that it inclines the recipient to specific behaviour. It becomes necessary to learn adaptive styles during stressful situations, which would be useful not only in the treatment of obesity but also in its prevention.

In the field of “Nutrition”, the vast number of analysed articles belongs to the field of *public health*—38%. *General medicine* accounts for 19%, followed by *Nutrition and metabolic diseases* and *economics* with 15% and 7%, respectively. Again, 21% belongs to the additional disciplines not included in the grid of analysis, including pedagogics, nursing, physical sciences, and tourism and recreation accounting for 40%, 20%, 20% and 20%, respectively.

Scientific articles grouped in the academic field of public health presented the following findings: physical activity plays a key role in assessing the quality of life; children understand the need for healthy eating and practising sport to lead a healthy lifestyle; enriching the diet with extra nutrients, which is necessary during pregnancy, is well known, but less than half of surveyed pregnant women took supplements during pregnancy; 81% of respondents care about their health and gender does not differentiate results, which can be considered a very optimistic picture of the young society.

The abovementioned findings point at the following implications: proper diet is an essential factor, among others, in odontogenesis—the development of temporary and permanent teeth; patients know that poor nutrition during pregnancy can affect the health and development of the

child in utero and after birth, but most of them do not pay attention to the content of nutrients in their diet, and only part of them took dietary supplements during pregnancy. It is necessary to modify the education programmes for pregnant women to include the topic of a healthy diet during pregnancy; test results show that the Polish adolescents and children have a high level of knowledge about a healthy lifestyle.

The most discussed topics in analysed scientific articles related to “Food” concerned the topics of *eating disorders*, *addictions*, *anorexia*, *bulimia* and *body perception* (8 cases). The second most covered topic in analysed scientific articles was related to *eating habits* (6). The third most popular topic was related to “beliefs/knowledge about food” (5). The fourth most frequently discussed topic was related to “Food” concerned *culinary tourism* and its impact on regional tourism (4) ex aequo with the subject of *culinary art* (transmission of culinary traditions) (4).

In the case of scientific articles related to “Nutrition”, the most discussed topic is related to *disease prevention*, especially for pregnant women, people with cancer and other disabilities (17). The second most covered topic was related to the *impact of nutrition on health* (10). The third most popular topic was related to the research on *physical activity* and the *quality of food* or knowledge about healthy nutrition among children and adolescents (8). The fourth most frequently discussed topic was related to the *relationship between nutrition and physical activity*.

The grid of analysis also contains an item on the *Designs* utilised in analysed scientific articles related to both “Food” and “Nutrition”. Within these two categories, the most popular is the *Review article*, with 58% and 43% in the case of “Food” and “Nutrition”, respectively. Accordingly, the second most popular was a *Quantitative* design, in the case of “Food” accounting for 20% of analysed scientific articles, whereas 40% for “Nutrition”. The remaining designs, including the *Qualitative* design, *Meta-analysis* and *Combined studies*, reached 10 and less per cent of analysed articles.

5.6 RESULTS OF THE ANALYSIS OF PUBLICATIONS RELATED TO “FOOD” AND “NUTRITION” REGARDING THE OVERWEIGHT AND OBESE AMONG CHILDREN

Among the 60 analysed publications in the field of “Food” only 4 concerned obesity among children, while among the 68 in the field of “Nutrition” one can point to only 6 articles referring to the

abovementioned issue. Four publications belong to the academic field of medicine, while others to public health, psychology and economics. As stated above, the analysed scientific article has been published in the period from 2014 to 2017. In three publications, belonging to the area of medical sciences, one can meet the results of tests carried out in both kindergartens and primary schools.

In one of the articles, both qualitative and quantitative research were carried out (Stefanowicz et al. 2016) among 80 pupils of one of the primary schools in the West Pomeranian Voivodeship of Poland. The purpose of this research was the assessment of pupils' knowledge about health and factors influencing them as well as the assessment of the role of the school nurse in promoting health and a healthy lifestyle. The researchers assume that health promotion is necessary to help people improve and maintain health. The research is carried out using a specific questionnaire, including questions about age, sex, place of residence, education and place of residence of parents, the occurrence of chronic diseases, knowledge about the principles of proper nutrition, the use of stimulants and forms of spending free time. Also, the weight and length of the pupils were measured during the study. The research results presented several irregularities both at the level of pupils' knowledge of a healthy lifestyle and the use of stimulants. Overweight was diagnosed among 10% of pupils. Researchers concluded that the nurse is the most suitable person to promote healthy behaviour in schools, adding that her profession can help play a key role in health education and disease prevention among children.

In the next publication categorised within the academic field of medicine, quantitative research was carried out on a sample of 2165 people (Sygit et al. 2017). Children and adolescents from rural areas of the West Pomeranian Voivodeship of Poland were invited to the study. The instrument was anthropometric examinations (body height and mass). Researchers have put forward the hypothesis that a healthy lifestyle consists of both physical activity and proper eating habits. The obtained results revealed some irregularities related to proper nutrition among children and adolescents. The main conclusion is that the respondents did not follow the principles of healthy nutrition—that is, 32% of them consumed 1–2 meals a day. In turn, less than 50% of pupils admitted that they do not attach too much importance to consuming the first and second meal. Also, 75% of respondents avoid physical activity. The authors of the study point out that improper diet and lack of physical activity pose a severe threat to the health of children and adolescents, indicating at the same time a strong need for intensive development of health promotion and health education.

A third of the analysed articles, falling into the category of medical sciences, was also based on data from qualitative research carried out, this time, among 400 mothers of pre-school children (Potocka and Najder 2014). This study aimed to explore the relationship between the maternal and the child's body weight. The results obtained during the research indicate that the development of the obesity among children is related to many factors, including (1) complex interactions between the child and the family, (2) an external environment, and (3) the mother's responsibility for the child's diet. In turn, the mother's choices related to child nutrition are influenced by the external environment. The authors summarise the results paying attention to the following dependence: with the increase in nutritional awareness of mothers, a decrease in the child's BMI is noted. The conclusion that flows directly from the conducted research is the need to build nutritional awareness among mothers in order to reduce the risk of overweight and obesity among children.

The last publication listed in the group of medical sciences is an example of an editorial article whose aim was to learn about the health attitudes of high school students (Kolarczyk 2015). The author presents a hypothesis that a healthy lifestyle of young people during adolescence leads to a reduced risk of developing various diseases in adulthood. The presented analysis shows that the most critical problems related to the health behaviour of young people are lack of physical activity, poor nutrition and the use of stimulants. The author also notes that despite tremendous knowledge about pro-health activities, teenagers in their daily lives undertake risky behaviours. The author summarises with a sentence that in order for educational activities to be productive, it is necessary to know the problems of young people.

Another article, this time in the field of psychology, comes from 2014 (Wojciechowska 2014). The article aimed to research the food-related environment of families with children aged 1–12. The immediate motives behind such research were alarming data on the overweight and obesity among children, and its health and psychosocial consequences. The method of analysis used by the author is based on the datasheet, containing necessary information about herself and her family as well as the carefully prepared "Family Nutritional Environment" questionnaire. The results obtained by the author show several irregularities related to the issue of a healthy diet among children. Namely, the time mothers devote to the preparation of a meal is statistically higher than the time spent by fathers on the same activity. The level of stability also decreases

significantly among children over six years old in terms of both meal's planning and eating. The author notes that healthy nutrition and support in building a healthy style of nutrition is not only the access to a fixed type of meals but the process of learning how to eat dishes that also bond the family together regularly.

The second article from the field of psychology is a review publication (Szczygieł and Kadzikowska-Wrzosek 2014). The authors present the results of research on the relationship between emotions and nutrition. The results indicate that emotions of high intensity suppress the desire to eat and that emotional nutrition leads to an increase in the consumption of meals with high fat and sugar content. The authors add that an important issue is to study the relationship between dietary behaviour and self-regulation processes.

Another review publication concerning the topic of obesity is categorised within the group of health sciences. The author assumes that the workplace should be the place where pro-health activities are implemented, a tool for reaching adults with information on health and health-related behaviours (Plichta 2017). The results of the analysis allowed the author to put forward some interesting conclusions. These include (1) the need to pay special attention to work hygiene (properly equipped workstations, graphics reminding of the need to perform periodic tests, information on necessary telephones, etc.) and (2) implementation of informational activities related to health, that is, through new media (social channels). The knowledge of health-related principles gained during the work can be used in non-professional situations, for example, in private and family life while raising children.

Another publication in the field of public health has both theoretical and research character and aims to describe the nutrition, free time and physical activity among children from 10 to 13 years old (Niewiadomski et al. 2015). The authors put the following research questions: the role of physical activity in life, the way of spending free time, understanding the need for healthy eating and the self-assessment of diet and physical activity among children. The results of the conducted research indicate that the most common way of spending free time by children is playing computer games or watching TV and that children are aware of the need for sports and healthy eating but prefer a passive lifestyle.

The penultimate analysed article related to the nutrition of children was recorded in the discipline of the economy. The publication comes from 2010 and is also an example of a review article. The authors

(Gutowska-Wyka and Zadworna-Cieślak 2010) draw attention to the fact that in recent years, more and more often, one can notice a higher concentration of interest on issues related to the promotion of health. Authors argue that the research results indicate that some behavioural stimuli were positively correlating with the state of health, which becomes a basis for numerous social campaigns. The publication shows that the health behaviours of children and adolescents are of particular importance because it is during this period that healthy habits are consolidated and influence the later health of the individual. These habits are created through primary socialisation (through parents) and secondary socialisation (school, peers, mass media). In their work, the authors present the concept and origin of overweight and obesity, indicating the scale of the problem among adolescents, then diagnose the state of eating behaviour among adolescents with overweight and obesity and indicate the consequences of excessive body mass. The authors, based on literature and their studies, recall a programme of workshops for children and youth, which includes the modification of food-related behaviour, strengthening self-esteem and effectiveness, and the ability to deal with negative emotions and shaping positive thinking and strong will.

The last article under investigation (Suszek-Namroży and Platta 2015) was not categorised under any of the proposed disciplines. The authors did qualitative research on a sample of 100 people (35 boys and 65 girls), whose aim was to analyse the views of children on the consumption of fish meat. The authors assumed that the consumption of fish, due to the high content of nutrients and minerals, has a proven positive effect on the development of children. The results showed that all respondents believed that eating fish is healthy, and 68% of children admitted that the fish are “rather tasty”. The only problems indicated by the children were bones in fish.

5.7 CONCLUSIONS

The total of 128 analysed publications in the field of “Food” and “Nutrition” allowed for the isolation of only 10 articles on overweight and obesity among children. Six publications were based on quantitative and qualitative research, while the remaining four publications were review articles. Five of the analysed articles contained information on the consequences of the obtained results or the analysis of literature carried out. In the four analysed publications, there was also a comment that provided

additional information about the need for changes in the scope of the analysed issue and a proposal for these changes from the author or authors. If the government support programmes are taken into account, one can conclude an insufficient number of publications in the analysed period from 2014 to 2017. Also noteworthy is the fact that a small number of exploratory research has been carried out within this period. The information provided by such a brochure can be used to design support programmes in areas covered by the previously conducted research process. In the context of the above-presented analysis and programmes related to health prevention and counteracting obesity, it would be necessary to include (or refine) issues related to explicitly. Those issues are the role of emotions in the eating process, the role of the workplace as a place of information's distribution of the principles of a healthy lifestyle and the importance of the child-parent relations in the context of nutrition (here, the time spent on preparing meals for the child and the parents' responsibility for transferring knowledge about a healthy lifestyle).

NOTES

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Mediatic Coverage of Scientific Research Published in the Republic of Moldova on “Nutrition” and “Food” Topics

Cătălina Croitoru and Elena Ciobanu

6.1 INTRODUCTION

Science means the development and advancement of inventions and innovations, of technologies that do not remain unchanged but continuously improve. Thus, improvement is the future, and the future depends on us.

Why do we need publications and scientific articles? (1) Scientific publications are the primary way to exchange information on progress. (2) The results obtained cannot be considered as fully valid unless they are used by other researchers in their work, referring to them. (3) Articles contribute to international research on science, leading to its development. (4) The consolidation of scientific research and the subsequent reports on the activities carried out. (5) Contribution to the acquisition of

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useful knowledge stimulating solutions of the scientific problem. (6) Allows us to learn to express our thoughts clearly and logically, to prove a point of view and to argue it. (7) Helps to analyze a large amount of information. (8) Broadens the image, the possibility of obtaining international recognition, fame and high scientific connotation. (9) Provides satisfaction and a sense of self-realization. (10) Helps to study and analyze modern trends and innovations.

A study conducted within the project “Development of the National Bibliometric Instrument” estimates that there are around 90 journals in the Republic of Moldova claiming scientific publication status, but few of them fulfill the function of disseminating the scientific results. For example, publications have been set up with the primary purpose of realizing the need for the teaching staff and/or scientific researchers in that institution to publish their articles. This is conditioned, in particular, by the necessary accreditation criterion of the organization in the field of science and innovation, which requires the publication of a scientific journal, on the one hand, and to ensure the accumulation of the necessary score for the promotion of the scientific staff, on the other hand. The existence of a large number of magazines and published articles reduces the competition between manuscripts submitted for publication, but cannot help to increase the quality of the articles (Cuciureanu and Jardan 2011).

The material review system sent for publication (practiced by many magazines in the country) is not able to improve their quality. Therefore, there is no rejection of the articles submitted for publication, as almost any article sent is published. Few magazines practice handing out the material written to the author for approval and making changes. Most of the time, the article review is formal, as some magazines also require from the author one to two reviews, along with the article. Thus, some journals do not fulfill the critical role of a scientific journal, the role of confirming the scientific relevance of published articles by selecting the best ones in the editorial portfolio (Cuciureanu and Jardan 2011).

Nutrition is an external factor that plays an essential role in maintaining human health. At present, this factor has become even more important due to the change in body image (Albu and Constantin 2015). Moreover, nutrition, along with breathing, hydration and movement, is a conditional factor of man’s manifestation in this life. Food covers the metabolic needs of the body so that any lack of it in time leads to imbalances that are hard to rebalance. The man had a close connection with the environment, and he knew the typical consumption of food and the avoidance of others.

Unfortunately, technicization has been lost in a significant percentage, reflected attitudes toward the environment, as well as in its health and morbidity (Damaschin 2016).

In recent decades, proper nutrition and diet are emerging skills in the medical field that support the health of the population, both preventively and curatively, alongside traditional medical specialities. Nutrition can be considered part of public health both as a community intervention and as a preventive or therapeutic diet and has intrinsic links to almost all clinical medical fields (Tarcea et al. 2015).

Regarding the role and effects of education, which also relate to nutrition education, Immanuel Kant states: “Man can become man only through education. He is nothing but what education does in him”. In the same vein, Nicolae Iorga said: “Sanitary education alone would do more than all the hospitals together” (Damaschin 2016; Petrescu et al. 2014).

The research aimed to analyze the media coverage of scientific studies on two topics, “Nutrition” and “Eating habits/food” in the Republic of Moldova.

The objectives proposed for research were: (1) To identify the coverage of national scientific researches on nutrition and eating habits/food in the Republic of Moldova in the online environment. (2) The content analysis of scientific articles on nutrition and eating habits/food in national journals. (3) To assess the quality of the scientific production.

Researchers in this study have proposed to estimate some *alternative hypothesis*. (1) Research is made public through the general scholar.google.com scientific base. (2) There is research in the field of human nutrition and eating habits/food products at the national level. (3) The content of articles on nutrition and eating habits/food corresponds to scientific requirements. (4) The findings made as a result of the research meet the purpose set at the beginning of the study.

6.2 RESEARCH METHODOLOGY

The methods used were sociological, observative, descriptive and statistical. The material of the research was made of the national scientific articles which were analyzed with a grid of analysis. Articles were selected in national language using an algorithm. The sample of scientific articles was made of national articles found on the scholar.google.com and published in scientific basis of articles. The keywords used were as follows: for the

first subject “Nutrition”, the word “nutriție” was used in Romanian, and for the second subject “Food”, the searching word was “aliment” in Romanian (derived from “alimentație/produse alimentare”). The interval of analysis was between 1 January 2014 and 1 January 2017 and the first ten pages (with articles from the Republic of Moldova) from Google Scholar were included in the final sample.

The first search on Google Scholar was unsuccessful. A minimal number of articles were identified, and we have to reject the first hypothesis. Thus, another method to search for scientific articles was used to verify the other hypothesis: articles were searched for the same period of analysis (in Romanian) on the website of “Public Health, Economics and Management and Medicine” (published online <http://public-health.md/index.php?page=revista>). We used the same keywords “nutriție” and “aliment” to search for articles.

The criteria for including an article in the sample were the fact that the author of the publication is/was from the Republic of Moldova and the presence in the article of the researched subjects (this one has to have a primary and secondary role in the text).

The criteria for excluding articles from the research were the author of the publication is originating in another country than the Republic of Moldova and the tangential role of the investigated subject.

6.3 RESULTS

The first aspect proposed for evaluation in the analysis grid was the *academic field* (AF). From the number of articles published in the topic “Nutrition” (out of the 35 articles published by Moldovan authors), most articles were from two academic fields (*Public Health* and *General Medicine*). Thus, 18 articles (51.4%) were in the academic field *Public Health*, 8 items (22.8%) AF *General Medicine*, 2 items (5.7%) AF *Epidemiology*, 2 items (5.7%) *Diabetes, Nutrition and Metabolic Diseases*, 2 articles (5.7%) combined two AFs *Epidemiology* and *Public Health*, 1 item (2.9%) AF *Social Psychology* and 2 articles (5.7%) were found in the standardized grid list (of which one article in AF *Management* and one in AF *Exceptional Situation Medicine*).

Out of the 160 articles published on the topic “Food”, the majority (102 articles—63.8%) of the articles were written in the field of *Public Health*. The next greatest amount appeared in *General Medicine* (32 items, 20.0%). Six articles combined the two AFs (*Public Health* and

General Medicine), but in all of these articles, the “Food” topic was tangential. Two articles combined AFs *Public Health* and *Legislation* and one article written in AF: *Economics, Legislation, Biology, Zoology, Psychology*. In addition to the AF specified in the analysis grid, 12 articles (7.5%) were found in other AFs. Five articles in the field of *Pharmacy* (2 articles, in which the subject investigated had a secondary role and three articles—a tangential role), two articles in the fields of *Dentistry* and *History* and one article in the field of *Exceptional Situation Medicine* had a tangential role. Two articles were about jubilees, also using the topic “Food”.

Further on, standardized grid articles common to all countries included in the study, where the subjects under discussion (“Nutrition” and “Food”) have a primary and secondary role (excluding those with a tangential role), will be characterized. By adhering to the second criterion of inclusion of articles in the research, 13 scientific papers on “Nutrition” and 50 articles on “Food” will be analyzed.

An essential aspect in the writing of articles is the exposure to the purpose of the research. If the scientific publication includes the purpose of the research, readers can easily understand the subject under analysis. Thus, in the analysis grid, the point of assessment of the presence of purpose in the article and the clarity, the accuracy of the exposure and the accessibility of its understanding were included.

Of the 13 scientific articles on “Nutrition”, only 2 articles had a well-established research goal, with nutrition being a secondary topic in both articles. Out of 50 scientific articles on “Food” less than half articles (24 items) had a well-determined purpose. Of the 15 most recent articles, “Food” had the primary role in 9 articles—with a secondary role. Both the articles on “Nutrition” and those on “Food”, with a well-defined purpose, refer to the scientific field of *Public Health*.

One of the points of the review of the scientific articles was *the evaluation of the research design, the characteristics of the research samples and the sample size*. Most articles have quantitative design on the subject “Food” and review article on both topics. No articles on the topic “Nutrition” and the topic “Food” showed the use of meta-analysis.

The quantitative design (experiments, surveys) on the topic “Nutrition” was highlighted in two articles. Both are from AF *Public Health* and the subject researched was of primary importance. One article had a qualitative design and another combined design (quantitative and qualitative). In both articles, the research goal was not clear and the subject “Nutrition”

had a leading role. Both articles were from AF *Public Health*. Study samples (for quantitative, qualitative and combined design) were made up of physicians, employees, ambulatory cards and samples of plant products (peppers, tomatoes, cucumbers, cabbage, onions, carrots, potatoes). The samples had 92–449 subjects or samples in three of the four types of research, and in one study, the size of the sample was not specified.

Most articles (nine) on the topic of “Nutrition” were review articles. None of them had the purpose of research. Five articles were from AF *Public Health*, three from AF *General Medicine* and one from AF *Management*. As a sample characteristic in articles such as the review article were mentioned: scientific articles; evaluation studies from online databases; legislative acts in force; WHO’s and UNICEF’s recommendations; the data of the specialized studies.

At the same time, the size of the sample (in numbers) of researched bibliographic sources has not been specified, and in the bibliography, there were between 10 and 38 bibliographic references. Two articles cited between 10 and 19 bibliographical references, three articles had between 20 and 29 bibliographic references, and four articles had ≥ 30 bibliographic references.

However, under the topic “Food” we found 23 articles of quantitative design, 22 of them were from the academic field *Public Health* and 1 from AF *General Medicine*. Fifteen articles had the purpose of well-determined research. In 13 articles, the subject investigated had the main role, whereas in 10 articles it has a secondary role. Six articles had a qualitative design, of which only four articles had a well-defined purpose. Five articles were written in AF *Public Health* and one in AF *General Medicine*. In two articles, the investigated subject had a leading role. Two articles had a combined design, both of which were from AF *Public Health*, with well-defined goals (assessing the possible risk of the impact of pesticide residues on population health by consuming vegetables, assessing the actual diet of women undergoing the “UNICA method”) the subject investigated was the main one in both articles.

Additionally, study samples in articles on “Food” were very diverse: doctors from the State Public Health Service, family doctors, teachers, junior athletes, patients, food samples (vegetables, meat products, dairy products, eggs, fish), menus, food-contact packaging, blood samples, laboratory samples of environmental factors, ambulatory cards, observation sheets, statistical data from the National Bureau of Statistics and the Center of Public Health in Chişinău, informative notes on the health of

pre-school children and pupils, but also sanitary examination reports of institutions and epidemiological investigation cards. Regarding the study sample, the size of the sample was made of 30–600 subjects, in the case of laboratory samples its volume was between 1985 and 155,120 samples, and for documented results it consisted of 55–300 fiches. Three articles did not mention the sample and size of the sample under investigation, and in six others who described the sample there was no indication of the sample's size.

There were 19 review articles. The majority (13 articles) were from AF *Public Health*, two articles were from AF *General Medicine* and *Pharmacy*, one article from AF *Economics* and *Public Health* plus *Legislation*. In six articles, the subject was the main one. The purpose of the research was only found in three articles, which sounded like this: assess the change in dietary habits and food risk factors for non-communicable diseases according to interventions implemented through public policies, establishing the level of hydration exposure of the population of the Republic of Moldova, identifying the impact of some food additives on the health of the consumer.

As a sample characteristic, three articles mentioned the following working materials: scientific articles in online databases, legislative and normative acts adopted by the European Union and the Republic of Moldova, WHO and UNICEF recommendations, publications from the Internet (PubMed, www.who.int) and the funds of “Nicolae Testemițanu” State University of Medicine and Pharmacy libraries and the National Center of Public Health.

There was not any specification of the size of sample of bibliographic source investigates and in the bibliography were presented between 10 and 40 bibliographic references. Eight articles cited between 10 and 19 bibliographical references, six articles presented between 20 and 29 bibliographic references and five articles had less than 30 bibliographic references.

Consequently, it was also found in both articles on “Nutrition” and articles on “Food” that the samples under investigation were not sufficiently detailed, with clear explanations and criteria for inclusion and exclusion.

Another aspect underlying the research according to the standardized analysis scale was to evaluate the *location of the research* (investigation) and the applied *research methodology*.

The location of research in articles on “Nutrition” was specified only in two articles from four articles and it was analyzed with quantitative,

qualitative and combined design. The venues were hygienic laboratory and medical institutions. In the topic “Food”, the place of the research was specified in 13 of 36 articles with quantitative, qualitative and combined design. These researches were carried out in the Geochemistry Laboratory of the Institute of Geology and Seismology of the Academy of Sciences of Moldova, the sanitary-hygienic central laboratory of the National Center of Public Health, the Laboratory of Child and Adolescent Health at the National Center for Public Health, Synevo Medical Lab, commercial units, shopping centers located in Chişinău municipality, Bio-Shape Club of UNICA.

Analyzing the research methodology, we found that only 6 out of 13 articles analyzed contained information on the research methods used in the research, and half of the articles analyzed (26 out of 50 articles) on “Food” had information about the research methods.

In the topic “Nutrition”, scientific articles with information on the research methods were from various fields (Public Health; Epidemiology; Diabetes, nutrition, metabolic diseases; General medicine), and in the topic “Food” all articles were from AF *Public Health*.

In all articles on the topic “Nutrition” and most articles (three of 26) analyzed in the topic “Food”, the methods applied in the research were only named, without being explained or described. In each article, more than one method of research was mentioned. In the articles on “Nutrition”, the following research methods were mentioned: hygiene, epidemiology, laboratory, clinical, case study, sociological and statistical. In the articles on the subject “Food”, the methods of study applied by the researchers were food, epidemiological, gas-chromatographic, atomic absorption spectrometry, photolorimetric, spectro-photometric, microbiological, serological, microscopic, historical, bibliographic, descriptive, analytical, comparative and statistics.

Data collection for the studied factor can be achieved by using a measuring instrument. To obtain accurate and precise results, the most appropriate tool for the phenomenon to be studied should be chosen. One of the tools commonly used in research is the questionnaire (Landrison and Delahaye 1995). Questionnaires are a great instrument to collect in-depth information about certain topics, nosological forms. It allows the real feedback and the identification of the behavior, attitudes and practices of respondents.

In a study involving research subjects (patients, employees in different areas, etc.) ethical considerations emphasize respect for the person, confidentiality issues and the principle of minimizing risk. In each research,

clear and informed consent must be obtained from the person included in the study (Landrison and Delahaye 1995). Thus, we have been interested in the use of *measurement tools* and the characteristics of publications through *ethics and bias issues*.

The research described in three articles on “Nutrition” was done using a questionnaire. Only one article describes the recognition of research by the Ethics Committee. Another article is a clear and detailed description of the work tool (questionnaire) and explains the methodology of the research.

In the “Food” topic, five articles were published in which the research tool was a food survey or questionnaire, but in no article was the research tool described, or where the research methodology was exposed, there was no information about obtaining the informed consent from the respondents and the recognition of the research by the Ethics Committee. All five articles refer to the academic field of *Public Health*. In two articles, the investigated subject played a leading role, in three a secondary role. The purpose of the research is clearly described in both articles in which the subject has a leading role, and also in one of the articles in which the subject has a secondary role. The research outlined in three other articles involves people in the research process, but in none of the articles does the author mention getting the informed agreement from the respondents, and no recognition of the research topic from the Ethics Committee. In all three articles, the subject under consideration is a secondary one, the principal subject being a clinical problem, as all refer to *AF General Medicine*. None of these articles formulated the purpose of the research or described the methods of research.

Another significant point is that the next question in the analysis grid was about the *source of funding*. There is no information in any article about the statement that would clarify the source of funding for the research and the statement on the existence of a conflict of interest in the research project.

On the one hand, when a researcher establishes a theory or tests the validity of a theory, he or she formulates a hypothesis that is the expression of his opinion or belief. Research hypotheses, in particular, are characteristic of analytical studies (Landrison and Delahaye 1995). Furthermore, results of current research have shown that neither the articles on the subject of “Nutrition” nor those on the “Food” topic have put forward hypotheses for validation or rejection. Perhaps the main reason for the lack of hypotheses in these researches may be conditioned by the fact that these articles were not published in the analytical studies.

An essential aspect of the articles' exposure is the *findings* in the text. In the grid used in this study it was proposed to examine the findings in four ways: clearly and detailed outlined, presented as a general text, not presented in the article/missing and vague/not clearly defined.

No article on the topic "Nutrition" has clear and detailed findings; moreover, in eight articles, the findings were presented as a general text, and in five articles the findings are not presented in the text.

In the "Food" topic, more than half of the articles presented findings. In 17 articles the findings were presented as general text, whether in 9 articles they were vague/not clearly defined and only three articles outlined in the text clear and detailed findings.

Analyzing the last three articles presented clearly and detailed outlined in the text, we found that all have a quantitative design.

Two of them refer to AF *Public Health* and the subject under investigation was one of these two articles, but one was the purpose of the research and called the applied research method. The third article referred to AF *General Medicine*, the topic "Food" being secondary, with "spontaneous bacterial peritonitis developed in liver cirrhosis". This article is not the purpose of the research; the methods of study are not explained. Even though the subject of study in this research is patients, there is no information about obtaining informed consent from respondents and recognizing research from the Ethics Committees.

The most important findings highlighted in articles on AF *Public Health* were about the number and characteristic of sanitary contraventions applied by the State Public Health Supervision Service: "the representatives of the State Service of Public Health Supervision have fixed a total of 755 sanctions"; "most sanitary contraventions (47.71%) were committed by employees of the public food objectives in Chişinău municipality"; "contraventions referred to the group of production rooms (47.71%), so they referred to various stages of preparation of dishes"; monitoring food safety: "2555 samples (which constitute 5.9% of the total number of samples studied) did not correspond to the norms in force according to the sanitary-microbiological indicators"; "of all food groups examined, the highest proportion of non-compliant samples was established for culinary products"; "the proportion of non-compliant samples was higher at the start of the study and dropped to the middle".

Article findings in AF *General Medicine* were "Strict non-compliance of the lifestyle and diet by the patient included in the study has led to worsening of the underlying liver disease—liver cirrhosis"; "The patient's late

doctor consultation has become a major factor in the occurrence of serious complications leading to death”; “The complexity of the presented case can serve as a research study involving multidisciplinary therapeutical and surgical multidisciplinary interventions”.

The following aspect examined in the content analysis of the scientific articles was the petition and the quality (applicability) of the *practical implications* suggested by the author. In the “Nutrition” topic, three articles have one to four implications, and one article has seven implications in practice and theory. However, most implications refer to practice. Of these, two articles were from AF *Public Health* and two from AF *General Medicine*. None of the four articles presented a research goal; an article was with quantitative design; the other three are review articles.

A slightly larger share of articles on “Food”, that is 14 articles, had some implications in practice, many of which were vaguely exposed or included in the conclusions. Of these, most refer to AF *Public Health* (12 articles) and two articles refer to AF *General Medicine*. Half of them (seven articles) formulated the purpose of the research. Of all the articles that had implications in practice, the majority (nine articles) were articles with quantitative design, an article was with qualitative design and four articles were review articles.

The practical implications proposed by the authors in the articles in AF *Public Health* can be divided into three groups, most of them having implications from the first group:

1. food safety and security, for example: “food pollution can be prevented by not allowing environmental pollution”; “to ensure permanent monitoring of the contaminants content”; “to check the shelf life of all foods”; “a more rigorous surveillance of the technological process of preparing food is required in public catering objectives”.
2. rational nutrition, for example: “a suitable food ration must have a well-balanced chemical composition, i.e. contain optimal amounts of proteins, lipids, carbohydrates, minerals and vitamins”; “In order to organize a rational diet, it is necessary to calculate precisely the person’s energy expenditure”; “The issue of nutrition for teachers can be solved by serving a meal at the school canteen”; “The legislative issues in the field, as identified by the study, must be put on the agenda for specialists to remove them, as was the case in the European Union and the US”.

3. prevention aspects, for example: “mandatory preventive and periodical medical examinations are of major importance in preventing and combating obesity”; “including managers of food units in the list of contingencies subject to compulsory hygiene training”.

To sum up, in the two articles in AF *General Medicine*, the following implications were in practice: “It is necessary to continue the studies of these serious cases with decompensated hepatic cirrhosis, aggravated with multiple complications, including bacterial peritonitis, to improve the management of these patients and reduce in-hospital mortality”; “It would be very good for each household to have milk-producing animals (a source of nutrients, many of them—essential, which the body does not synthesize and can not be replaced by others)”; “Insufficiently fed children, but generally all children should be provided with specially prepared food, strictly monitored by specialized institutions at a high professional level”.

Analyzing the content of the scientific articles we were interested in the existence of comments in articles. About two-thirds of articles have comments at the end of them. Comments were exposed in the form of conclusions in eight articles, two articles were exposed throughout or at the end of the article and two articles had no comment on the topic “Nutrition”. One of the articles without comments was from AF *Public Health* and one was from AF *General Medicine*, both being review article, without study purpose, research methods, findings, practical implications.

On the subject of “Food”—31 articles had comments at the end of the article, out of which two articles comment repeat findings; in 16 articles comments can be identified throughout the text, and three articles—no comments. Most articles posting comments at the end of the article are from AF *Public Health* (23 articles), an article was from AF *General Medicine*, an article was from AF *Economics*, an article that combined two AFs—*Public Health* and *Legislation*. Of these, 18 articles presented the purpose of the research (all from AF *Public Health*). Research methods have been named in 16 articles, and only 10 articles have had implications in practice. Of the three articles without comments, one was from AF *Public Health*, one from AF *General Medicine* and one from AF *Pharmacy*. All three are review type articles. None of them has the purpose of the study; the research methods do not present findings and implications in practice.

6.4 CONCLUSIONS

Summing up it can be said that two of the four hypotheses submitted for examination were confirmed and two were refuted.

Scientific articles in the field of medicine and public health of local authors/researchers are not publicized in scholar.google.com. This finding allows us to assume that researchers do not have accounts created on scholar.google.com, in order to promote the results of scientific research at both national and international levels. Much more active in this area are researchers from other fields as well as from other countries. However, journal articles and books are published in the Republic of Moldova in the field of human nutrition.

Content analysis has allowed us to point out that the scientific articles studied do not meet the international requirements for the writing and editing of scientific manuscripts. Some compartments are poorly approached or generally lacking. Thus, it suffers the quality of scientific articles, which limits the possibility of being published in international databases.

In general, the findings published in articles on “Nutrition” and “Food” analyzed for this study correlate with the goal set at the beginning of the study.

To conclude, the phenomenon of online coverage and visualization of scientific articles is directly related to the public’s interest in this information, the higher the availability of articles, the more the population will be educated on specific concrete issues.

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A Conceptual Map of “Nutrition”: Content Analysis of Uses in Romanian Mass Media and Scientific Articles Between 2014 and 2017

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7.1 INTRODUCTION

In 2018, the World Health Organization (WHO) published a paper on the latest evidence on Noncommunicable Diseases (NCDs) stressing that they are responsible for 71% of deaths globally (41 million out of 57 million), with the percentage being higher in low- and middle-income countries—78% of the global death caused by NCDs are in low- and middle-income countries, and for 85% of the premature death (30–70 years).

According to WHO (2018), NCDs are chronic diseases (cardiovascular diseases, cancers, chronic respiratory diseases and diabetes) which are the result of the intersection of four types of factors: genetic, physiological,

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environmental and behavioural. Amongst the behavioural factors of NCDs, four types have been identified as majorly increasing the risk of NCDs—smoking, lack of regular physical activity, ailing diet and excessive use of alcohol. Ailing diet and sedentary are seen to be responsible for the dramatic rise of obesity all over the world, the percentage tripled in the past three decades. In this context, WHO declared obesity, having a body mass index of over 30 kg, to be an epidemic after the Geneva Consultation on Obesity in 1997 (WHO 2000; James 2008). Today, WHO (2018) estimates that in Europe more than 20% of people are obese and more than 50% are estimated to be overweight (with a body mass index of over 25 kg) from which the European Association for the Study of Obesity (2019) estimates that one in three children above 11 is obese and 60% from the current overweight children are going to be the next obese adults. It is expected that the obesity rate will reach 50% of the population by 2025 (WHO 2018). The leading causes of obesity as they have been identified by the European Association for the Study of Obesity (EASO 2017) are the following: the number of hours spent sitting down—an average of 5 hours per day; the size of sweets eaten per year has increased up to 100% in the past 40 years; the intake of calories is more significant—an average of 500 Kcal/day than 40 years ago; and the absence of physical exercises. These statistics are alarming in the context in which obesity and pre-obesity are the significant risk factors for NCDs like cardiovascular diseases, cancer and diabetes (EASO 2019).

Where does Romania stand in this context? In 2016 (WHO 2018) it was estimated that 92% of the deaths were due to NCDs, the primary risk factor being harmful use of alcohol, physical inactivity, salt/sodium intake, tobacco use, diabetes and obesity. For Romania, obesity is the only one expected to keep on growing among the population over 18, from 25% in 2016 to 30% by 2025. The two leading causes of obesity being considered are food habits and lack of physical exercise (National Institute of Statistics 2015). Also in 2015, additional information of this theme was offered by the president of the Romanian Association for the Study of Obesity along with other researchers (Roman et al. 2015) who conducted a study on the prevalence of overweight and obesity in Romania. Between January 2014 and August 2014, the scholars researched 2128 adults coming from all the main historical regions of Romania, collecting socio-demographical data, personal medical history and data on lifestyle and eating habits gathered through the use of a food diary (Roman et al. 2015). They came to the conclusion that among the overweight and obese population the two

most present and unhealthy behaviours are having an “irregular meals” schedule and “eating while watching TV” (Roman et al. 2015, 64). Moreover, the data on lifestyle revealed “that compared to the normal weight participants, the overweight and obese participants display a different pattern of eating—they consume more frequently 3 meals/day every day, eat during night more frequently, eat large quantities of food less than 2 hours following another consumption of a large quantity of food and although feeling satiated and sleep less during the nights” (Roman et al. 2015, 70).

In the above-depicted context our objective was to sketch a rough image of the way Romanians’ nutrition is mentioned in scientific and mass media articles published in the Romanian language.

7.2 LITERATURE: SOME CONSIDERATION ABOUT THE PLACE OF NUTRITION IN SOCIOLOGICAL STUDIES

Nutrition is a research theme that has been studied by numerous sociological subfields like the body, health and illness, gender, rural studies, quality of life, ageing, food and eating, and family. “There is probably no field of sociological endeavor that could not address aspects of food or eating in some fashion or to some benefit” (Lake 2007, 188). Bryan Turner (2008, 30), one of the founders of the sociology of the body, opines that “Human Beings need to eat, but what, when and how they eat is entirely variable ... we live in a socially constructed reality and our pleasures are acquired in a social context, but this is also true of need. [...] Our culture emerges from the cultivation of our bodies.”

Stephen Mennell, Anne Murcott and Anneke H. van Otterloo in *The Sociology of Food: Eating, Diet and Culture* (1992) proposed three paths of development for the next decades of sociological food research: nutritional problems, professions of nutrition and emphases on culture. Focusing only on the place of nutrition in the foundation of the sociology of food and eating (see Lake 2007), one could notice the intricacies of this research field in the way the sociological scholars have thought to call the field which focuses on food and diet in social work. Alex McIntosh (1996) has proposed a “sociologies of food and nutrition”, stressing the diversity of ways present in sociological studies on this matter (see also Lake 2007). For McIntosh (1996) these sociologies should have two main directions: one towards the interdependencies between social factors and health

conditions, thus talking social epidemiology; and one towards an inside thorough understanding of nutrition fields and their connections with the other social fields. John Germov and Lauren Williams (1999) entitled their book *A Sociology of Food and Nutrition: The Social Appetite*, stressing the importance of studies on nutrition and thus of a “nutritional sociology” that could be structured on three major sociological pivots: McDonaldization, social differentiation and self-rationalization.

Among the subfields of sociology of nutrition, body shape and obesity is an important one with topics like health concerns regarding the fast-food diet, stigmatization of obesity, the socio-psychological factors of eating disorders, social construction of the human body (especially its size), gendered dimension of overweight and perception of own body (see Beardsworth and Keil 1997; Brownell and Horgen 2004; Critser 2003; Curtin and Heldke 1992; Germov and Williams 1996; Maurer and Sobal 1995).

The study presented in this chapter assumes that *nutriție* (nutrition) and its surrounding practices do not appear in a social vacuum. They are integrated into the overall system of social symbols, thus being modified and, in turn, modifying it. So, for the construction of good practices that will lead to a long-term lowering of the obese and overweight population without the risk of relapsing, we need first to understand all the socio-cultural elements that surround these NCDs. As a first step in this process, we intend to construct a conceptual map of *nutriție* (nutrition) as the implications that it has within the web of social relations lay at the foundation of body’s shape and size modifications. In a somewhat unpolished way, we can say that the depictions of *nutriție* (nutrition) can be seen as “figuration of concepts”, thus borrowing the concept of “figuration” which Norbert Elias (2002) uses to name different forms of interdependencies among individuals—in this case the aim being to use it to identify different word interdependences.

7.3 METHODOLOGY

We designed a content analysis-based study. The sources for data collected were mass media and scientific articles published in Romanian between 2014 and 2017. For each of the two types of data, we used sampling procedure and a grid of analysis designed by the leader of the project “Projet Santé Instruction Nutrition (SaIN)” (2017–2018). Thus, regarding the scientific articles, in the national articles published in the general scientific

data basis, we searched the ones that mentioned the Romanian word *nutriție* (nutrition) and saved for analysis the first 100 results given by the search engine Google Scholar. Then we used a grid of analysis comprising a list of 29 questions to ask for each scientific article—ranging from the academic field in which the articles were published to main objectives and hypothesis, research design, ethics and bias, to the key findings, generalization of the results, implications, strengths, weaknesses and limitations.

As for the mass media articles, the sample of articles was made from national articles published by national mass media—using the Google search engine, we searched the Romanian word *nutriție* (nutrition) and included the first 100 results published between 2014 and 2017. For mass media articles, the grid of analysis included 37 questions, concerning aspects like the topic of the article, the controversial issue presented in the article, the source of the article, the person and the documents cited, type of foods presented in the article, brands of food products, the presence of healthy foods (e.g. cereals, fruits and vegetables) and unhealthy foods (e.g. sugar-rich products, bread, frozen foods, fast-food, salt, sweet drinks and alcohol), recommendations related to healthy nutrition and food, and to multiple types of diseases (e.g. anaemia, obesity, diabetes and gastrointestinal conditions), and others like the general tone of the articles and the main appeal of the articles (logical or emotional).

Based on the data gathered, we propose the following interpretation, which we called the conceptual map. The term conceptual map is used in a broader sense, as a structured textual presentation of the connections between topics with regard to *nutriție* (nutrition) and not a graphic depiction as Joseph Novak and Bob Gowin (2002) suggested in their account of “Learning how to learn”.

7.4 RESULTS OF THE ANALYSIS OF SCIENTIFIC ARTICLES ON “NUTRITION”

During the period starting 1 January 2014 to 1 January 2017, the presence of the scientific articles on nutrition published in Romania, in the Romanian language, is rather scarce. The insufficient scientific approach on the issue of nutrition draws attention to a rather dramatic reality also underlined by the Romanian Doctor Cristian Serafinceanu—the president of the Romanian Society of Diabetes, Nutrition, and Metabolic Diseases—in an interview from 22 March 2014 newspaper *Adevărul* (*The Truth*).

According to Serafinceanu, nutrition represents a considerable problem in Romanian society with a high level of complexity. However, it is mostly and dangerously confused with PR and marketing, which could be verified through the mass media where nutrition is often discussed concerning diets and advertised “healthy” products. Nowadays, Serafinceanu emphasizes, nutrition is being popularized and vulgarized instead of promoted and thus understood as what it truly is—something mortal, especially in the case of chronic diseases. Doctor Florin Ioan Bălănică prefers to discuss the issue of nutrition not in terms of “nutrition”, but those of “lifestyle medicine”—which includes all its constituting elements: the management of weight, the management of posture, physical activity and the management of stress (Buciuta 2016). This suggested that direction of addressing the issue of nutrition can be inferred as one which aims at distancing itself from the superficiality of “lifestyle” as it is defined and advertised through mass media. The implied danger when dealing with “nutrition” results from the reader’s exposure to the somewhat simplified and superficial perspective of mass media—which inevitably leads to minimizing the role of nutrition in maintaining health.

However, the fact that most of these articles were published during 2017 anticipates the gradually increasing interest in the subject of nutrition. Most probably, if we were to extend the time of reference up to the beginning of 2019, we might perceive a more generous number of scientific articles on nutrition. This fact could be explained by the increasing awareness of the need for improving Romanian people’s education on the role of nutrition, as well as by the need to bring nutrition at a (more) scientific level.

If we consider the academic fields or disciplines as perspectives from which nutrition is being discussed, we observe that the most frequent one is that of diabetes, nutrition and metabolic diseases. Moreover, nutrition is discussed in strict relation with the issue of obesity and, more specifically, infant and childhood obesity. This is not random at all since obesity represents a factor of social risk among Romanian children.

Most of these scientific articles are presented in a form that aims at describing the causes and the risks of obesity while proposing few strategies for prevention. Others summarize some theoretical and practical information regarding specific nutrition such as the nutrition of extremely low birth weight (ELBW) or emphasize the benefits of proper nutrition and a healthy lifestyle since early stages of childhood. Those that are not merely theoretical are written after having conducted a study with findings

that showed a prevalence of overweight or obesity among schoolchildren. After conducting a study on a sample of 300 subjects in three different schools from Timișoara, one article (Modra 2015) shows that, based on the results, there could be an increasing prevalence of food deficits.

In terms of risks and prevention, one article (Sălcudeanu et al. 2017) suggests a relation of direct proportionality between eating breakfast and school (intellectual) performances: the results of the statistical analysis showing that 11.8% of the students declared that they had no breakfast in the last week, out of which 42.7% had low school performance. We mention that this study used an online questionnaire in 2016 for a period of two months and included 145 subjects from Botoșani County.

One of the essential ways of correcting infantile malnutrition is education as most of the scientific articles on the issue of nutrition suggest. Sălcudeanu et al. (2017), for instance, argue that education should start at home—being the parents’ responsibility.

Those articles aimed at finding strategies for preventing obesity and presenting full plans on health education are not numerous. For instance, there is one article (Trandafir et al. 2017) that proposes the implementation of a health programme, implemented by the Diagnostic and Counselling Region Centre, in the Moldova region, and the recording of a database with results that could be used for a constant and updated evaluation of the nutritional status based on a standardized methodology.

As a main comment and possible critique brought to the way scientific articles were conducted between January 2014 and January 2017, we could suggest the following. First, there is an imposing need for a more detailed and further developed plan for increasing education on the importance of nutrition in one’s life. Second, there is a need for dissociating the mass media’s dangerously oversimplified perspective on “nutrition” as a “lifestyle” matter, from the scientific approach on “nutrition” as a “lifestyle medicine” with complex clinical implications.

7.5 RESULTS OF THE ANALYSIS OF MASS MEDIA ARTICLES ON “NUTRITION”

Either a news agency, a newspaper, or a magazine article, the Romanian mass media referring to “nutrition” represents in most of the cases summaries of a (famous) nutritionist’s advice for a healthy lifestyle and diet, a

collage of ideas of famous experts in nutrition, a list of recommendations, secrets or golden rules on how to achieve proper nutrition.

Many of the presented recommendations and advice are related to the following: avoiding eating “toxic” foods such as white flour, sugar, modified fats, products containing additives, colourants and taste potentiators; the importance of three meals and two in-between meals per day. While some of the recommendations are explicitly related to nutrition, there are other pieces of advice, such as the importance of eight hours of sleep per night; the importance of sleeping early; the need to hydrate oneself properly with water and green tea; the recommendation of consuming no fried food/processed food, fast-food/alcohol; or the benefits of transforming one’s meals into a ritual by respecting one’s meals and having a regulate food consumption.

The most predominant recommendations related to diseases are those referring to obesity and cancer. As main topics, these articles present “nutrition” in relation to best diets, nutritive value of food, nutrition and obesity, myths and popular beliefs related to nutrition and food, nutrition and health, balanced life, recipes for slimming, or best recipes for the best breakfast/dinner. Few of them have the form of an interview with a (famous) nutritionist or medical doctor.

The citations these articles seldom provide are from nutritionists or medical doctors; no document citations are found. Standards of food quality, hygiene related to food and nutrition, sanitary norms or governmental/national/European rules related to food and/or nutrition are scarce to non-existent.

Few articles advertise certain food products—energy bars, shakes, supplements or vitamins, minerals and proteins—of certain brands such as Herbalife, Meal Balance, BodyKey, Muscle & Strength, or Natural Plus.

An interesting aspect worth considering is the real photos or the graphs that articles are being published with. It could be noticed that the majority of the articles with a predominantly medical approach, such as *Ce se întâmplă, doctore?* (Doctor, what is happening?), contain the real photo of fresh, colourful and appetizing-looking fruits and vegetables. Others contain photos of healthy and neat-looking young ladies enjoying their meals or, specifically, a balanced breakfast of fruits, tea and orange juice. Such photos offer the image of a healthy person who enjoys a relaxed and pleasurable meal/breakfast. Thus they invite the reader to the same by following the mentioned diet, choosing healthy food or taking their time to eat slowly.

On the other hand, articles written by the non-professionals or those with less expertise in the field of nutrition and its approach from a clinical/scientific perspective are often published together with photos of female models. Some of these appear in bed holding a plate of fruits (often strawberries and bananas), thus presented as objectified images of a woman's body. Most of them show only half/parts of a fit woman's body which invites the reader to exercise and eat healthy (some accompanied by sayings such as “strong is the new sexy”). Some photos combine the image of fruits/a glass of milk/a bowl of cereals, with different sports items such as a towel or sport shoes.

In terms of gender prevalence, there is an explicit preference for women and especially for young ones, unless there is an article mainly addressed to mature ladies—on nutrition during menopause, for instance. There are images of young and smiling women who either enjoy their healthy food, hold a paper bag full of vegetables, set the table full of healthy food for their family or exercise. We mention that many real photos join the image of healthy food items with that of a young woman exercising. Many other photos show a mirror image of the same girl—the slim and the overweight. The slim one always looks happy while the overweight one looks either worried or sad.

Few photos show couples (a man and a woman) drinking water or consuming fresh fruits, thus suggesting that both their posture or fit appearance and the act of eating healthy foods add balance to their life as well as to their diet.

In the case of interviews, most of them are accompanied by the photo of the interviewed doctor or nutritionist who usually wears a laboratory coat and often seated at a desk on which, in some cases, there are arranged few fruits/a small basket of fruits and vegetables. Such photos suggest professionalism, trust, confidence, certitude and respect.

7.6 CONCLUSIONS

In this chapter, our main focus was to draw in heavy strokes what we called a “conceptual map” of nutrition. It was not meant to be exhaustive, more a first sight of the field which has to be thoroughly studied in the context of the red flags raised by the WHO regarding the alarming way in which the number of overweight and obese people is rising each year. In this context, our content analysis on mass media and scientific articles from Romania, and written in Romanian language, leads us to a conclusion

which may function as a possible critique to the analyzed articles. Thus regarding the way scientific articles were conducted during January 2014 and January 2017 we could suggest the following. First, there is an imposing need for a more detailed and further developed plan for increasing education on the importance of nutrition in one's life. Second, there is a need for dissociating the mass media's dangerously oversimplified perspective on "nutrition" as a "lifestyle" matter, from the scientific approach on "nutrition" as a "lifestyle medicine" with complex clinical implications.

An ethical issue that could be perceived when analysing the mass media articles on "nutrition" is that of offering a proper definition of a "nutritionist". Regarding this matter, few important aspects could be pointed out. First, there is a distinction between a nutritionist and a medical doctor specialized in nutrition, which could be confusing and unclear for the reader. Second, there are many magazine or newspaper articles written by so-called nutritionists or experts in nutrition and diet who have no proper education in the field, or who are not doctors specialized in diabetes, nutrition and metabolic diseases, but graduates of a three-year programme organized by the medical schools. Third, there is a distinction between a dietician and a nutritionist, yet both should be authorized and holders of national exam diplomas. Fourth, special attention should be given to those nutritionists and dieticians who graduated from courses offered by dietary supplement manufacturers. Therefore, according to these essential distinctions, the level of one's expertise could be extremely different and could attract different implications for the reader of the article and the possible patient. This matter could also be addressed as an overall discussion on "nutrition" and its usage and limitations, as previously stated.

In terms of the main appeal of the mass media articles, and their tone, many of them present a neutral tone. Nevertheless, in some cases, the photos that are attached to the articles imply a rather emotional appeal. Also, in the case of those articles that advertise food products, the tone may seem slightly positive.

These preliminary findings we presented in this chapter suggest the existence of multiple layered conceptual maps of nutrition which will be developed through future analysis of the data collected. For the next developments of this research, we will use sociology of the body approach, which could allow us to understand the complex ways in which the body shape is socially and culturally constructed and reconstructed and how this construction is linked to what WHO called "obesity epidemics".

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Media Coverage of the Topic “Nutrition” and Related Issues in German Online News

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8.1 INTRODUCTION

Food and nutrition are not only essential, but also existential for humans, and require daily repetitive processes of decision, planning, organization, and realization of nutritional and eating situations. They are associated with health, values (thriftiness, allowability, permissiveness, etc.), social interaction, work, as well as with well-being and enjoyment. Hardly any other topic touches human life so regularly, personally and emotionally (Methfessel 2006).

Nutrition is a theme often covered by the German media (Benterbusch 1997; Barlösius and Rehaag 2006). It frequently appears in the German media both as the central theme, dealing with topics such as healthy food, sustainable nutrition, nutritional behavior, diets, and as an issue related to other main topics, especially those regarding health and illness, environment, animal husbandry, and different social issues.

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Whether the media coverage of nutrition and food and the perception of the content by the audience exert an influence on the actual nutritional behavior of the population, which is known to be determined by many other factors (time budget, financial resources, comfort, individual preferences, etc.), is unclear. This is as controversial as the educational potential of mass media (Rössler 2006, 62). This influence and the effects of media coverage of food and nutrition do not represent, however, the subject of the present approach, but the characteristics of media coverage of this significant and often controversial issue.

Thus, based on a qualitative and thematic content analysis, this chapter deals with the media coverage of the general theme of nutrition in the German online media over three years (2014–2016). The central research objective was to identify the main topics related to the theme of nutrition and food in this period and what were the significant sub-themes covered in the context of the subject of “nutrition.” The specific research questions, the results of which will be further addressed, were, among others: to what extent there are controversial issues associated with nutrition and what are they? Which are the main sources of information regarding nutrition? To what extent in the texts and the images published, together with them, are some foods presented, and what types of food were they? To what extent do the media make suggestions and recommendations on nutrition, and to what do they refer? To what extent are the topics of “health” and “illness/disease/sickness/disorder” covered together with the theme “nutrition/food/nutritional respectively feeding style?”

Moreover, other points of research interest referred to the aspects regarding the specificity of media coverage, such as media types and types of articles in which the topic of nutrition was most frequently publicized, the extent to which articles were accompanied by photographs and video clips, contained citations and quotations and to whom they belonged, and which was the predominant tone and the main appeal of the articles that approached nutrition and its related issues.

8.2 CONCEPTUAL AND THEORETICAL FRAMEWORK

According to the constructivist paradigm, mass media do not describe an objective, actual reality in itself, as they construct it (Neveu and Quéré 1996, 10). By translating itself into words and images, the reality presented in the media is a selected, interpreted, and constructed one (Schlesinger 1978; Weber 2016). The act of making news is the act of

constructing the reality itself, rather than making a description of reality (Tuchman 1980, 12). In this perspective, media are no longer seen as representing “the eyes from outside” who inform or relate about events but are recognized as representing an actor of the events, an active participant in their construction, a “partner in the communication contract” (Charaudeau 1992).

In this context, the term “media framing” is used to describe the process through which the media places the events and topics they relate to in a particular perspective or specific “frameworks” (O’Sullivan et al. 1994). By framing, the events are given a field of meaning within which they can be understood. Moreover, the media hints on events can also be used by the people to make sense of their experiences and social situation. “Frames” are “patterns of cognition, interpretation and presentation, selection, accentuation and exclusion” (Gitlin 2003, 7) of some thematic aspects, ways of structuring the elements that build up a media discourse. Frames used by the media in stories contribute to defining problems, diagnosing causes, making moral judgments, and suggesting remedies. Hence, media frames call attention to some things while obscuring others (Entman 1993). The reality presented in the news can rarely be an accurate representation of reality, because by merely choosing the topics, and relating them from a certain angle or point of view, by using specific sources, along with the constraints determined by working practices, journalists construct the reality through a selective process, without necessarily intending to distort the truth (Graham 2015). Without being scrupulously chosen, the frames for a given story represent the effort of the journalist to convey a story in a direct and meaningful way (Iyengar 1987). News frames are frequently grown out of shared cultural narratives and myths, which resonate with the broader social themes to which journalists tend to be keenly sensitive.

Mass media play a crucial role in shaping opinions and values in democratic societies, and nutrition, food, and health reporting is no exception (McCombs 2004; Coleman et al. 2011). Media messages on nutritional topics seem to be omnipresent (Rössler 2006, 62): from diet tips, recipes, or diets in women’s or fitness magazines, to cookery programs on television (and even on the radio), to so-called documentary or reality soap operas in which overweight volunteers—mostly unsuccessful—want to lose weight. Besides media content addressing commodity knowledge, nutrient and nutritional constituents, nutritional behavior, diet recommendations, gastronomic and gourmet tips and competitions, nutritional

information in counseling formats, and eating disorders, other topics appear also regularly in the media, like those referring to weight, overweight, and obesity (Raisborough 2016), health and illness and their bonds to nutrition, such as diseases associated to alimentation and nutrition, diet-related diseases, and generally the influence of nutrition on the health condition of people. Moreover, current journalism regularly reports on food scandals, animal husbandry, the production conditions in the food industry, or the impact of nutrition practices and habits on the environment and even on the future of the planet. However, many journalists that approach nutrition seem to favor food, cooking, and health content, dealing rather not critically with nutritional information materials. That is why information from non-commercial primary communicators may have a good chance of being distributed via newspapers with little or no transformation (Benterbusch 1997, 44).

Theoretically, mediatization refers to the process through which the media contribute in modern societies to the shaping and framing the public issues and generally the institutions and society in which they exist. The mediatization of a topic is understood as the concern or adaptation to the media attention rules. Mediatization of nutrition and food rests upon the specifics of the media: national versus local, print media versus television, and specialized magazines versus public media, their content being differentiated as topics of concern, areas of interest, and target groups. Subjects related to nutrition in the national media are typically of national relevance, while local media approach more often subjects relevant in the regional context. Print media and TV differ in terms of design opportunities, usage, and expectations. The visualization of content has basically a reinforcing effect on perception, and this is described by using keywords such as “eye-catcher,” emotionalization, and so on. Besides, a story can be “narrated” with moving pictures, so a “duplication” of the verbal content of a theme can be achieved (Hänsli 2006, 72).

Moreover, contributions on television have high coverage but are only relatively short and often not deliberately selected (e.g., topics in the news). In contrast, texts in the print media are available at any time, the selection of topics and events is more targeted, and they are more frequently used as background information (Hänsli 2006, 72). Specialized magazines and TV/radio broadcasts differ from media addressed to the broad, heterogeneous public in terms of content and target group orientation. Specialized or specialist articles, journals, and broadcasting formats cover topics in-depth, often with the accordingly specialized or specific

orientation. For example, nutrition in health magazines or broadcasts is highlighted usually in association with health and well-being, in agricultural periodicals most probably in connection with the cultivation of food, and in the fitness journals regarding body and exercise. Unspecialized, large public media present topics rather simplistic, generally understandable, and oriented to everyday life (Hänsli 2006, 72).

However, one can now speak about a trend in journalism toward negativism and sensationalism (many articles appear under a negative, sensationalistic sign), personalization (topics are tied to people), and conflict and scandalization (whenever and wherever possible a conflict or a scandal is revealed). For example, coverage of bovine spongiform encephalopathy (BSE, commonly known as “mad cow disease”), avian influenza, respectively, highly pathogenic avian influenza (HPAI), African swine fever virus (ASFV), or the use of highly hazardous pesticides in agriculture, such as glyphosate, are all examples of highly publicized scandals regarding food and nutrition. Other means of drawing attention to topics is the already above-stated visualization and emotionalization: because images can express things better and, above all, in a shorter time, can arouse feelings (Hänsli 2006, 72). For instance, in the topics listed above, the media did not hesitate to show dozens of cattle, poultry, or swine being driven into the slaughterhouse, the farmers pursuing them with tears in their eyes. This journalistic trend toward negativism, sensationalism, and scandalization, which correspond to a transformation of news into a popularized, lurid, and sensational form, was conceptualized as “tabloidization.” This term describes the dramatical change of the mainstream news media along with the news market becoming increasingly competitive, involving a replacement of the stories about politics and civic issues with media contents intended to be entertaining, that is, the type of news one might expect to see in tabloid publications. In other words, tabloidization implies that the mainstream media borrow the techniques used by the tabloid press in order to attract public attention (Burleson Mackay 2017). Stories written in a tabloidized manner might accentuate the sensational, including even despicable and/or obscene details, and publicize rumors and gossip about celebrities and people in the public eye, as well as many photos of the same kind, rather than information designed to keep the public informed of government policies and societal issues (Burleson Mackay 2017).

The “frames”, that is, the patterns of selection, presentation, and interpretation that assemble the perspective under which a topic or event is

seen or reported, conceivably for the topic of nutrition, are (Hänsli 2006, 73): sustainability, health, economics, science, politics, and food production. Nutrition can be discussed primarily in terms of viability or concerning the costs of nutrition or health consequences. Especially health topics are an essential part of mass media communication (Chapman 2001; Scherer and Link 2017). In the past (mal)nutrition was ranked among the risk factors for health. However, along with other factors such as unsafe or infested water, poor hygiene conditions and public sanitation, indoor air pollution, and so on—all of which are considered to be traditional risks—nutrition is still seen as a risk factor for health. Unhealthy or inadequate alimentation contributes to the increasing incidence of some nutrition-related diseases, for example, type 2 diabetes, gastrointestinal diseases, different allergies, and cardiovascular affections, and of some risky health conditions such as overweight and obesity (the so-called modern risks) (WHO 2009, 3).

Although frequently such health-related issues are treated in the media with concern, at the same time, the media continuously attempts to highlight food and drink, through the full range of culinary delights and temptations via not only advertising, but also the many non-fiction and fiction programs, in which food and drink are omnipresent. These media contents can be seen as part of the causes for the ever-increasing number of obese people (Stange and Leitzmann 2010, 276). That is why some questions arise as to what extent the media contribute to maintaining unhealthy nutrition behaviors, or how should effective nutrition education and counseling be designed, and what role can mass media play in this process?

Referring to the broader theoretical paradigm of socio-cultural constructivism, the research approach presented in this chapter can be placed at the intersection of the studies on media framing, specific to the sociology of journalism, and the analyses on the social construction of various topics of general public interest, specific to the constructivist sociology. Methodologically, the study can be placed on the line of research that use content analysis to make inferences in systematic identification and emphasizing the features of messages (Deacon et al. 2010; Krippendorff 2018).

8.3 METHODOLOGY

The method used in this research was content analysis, which included both qualitative and thematic elements (Altheide and Schneider 2013; Vaismoradi et al. 2013). It implied the application of the basic principles

of content analysis (delimitation of logical units, working with categories, etc.) in two qualitative methodological processes: the inductive development of categories and their deductive application (Mayring 2000).

Regarding the procedure for sampling the articles included in the analysis, in the online search engine www.google.com, I used the keyword “Ernährung” (“nutrition” in the German language). In the Google menu, I chose “News,” and in “Tools” I selected “Recent” in order to be able to delimit the time frame as mentioned above. This was determined by choosing “Custom Range” and limiting the search to the time interval from 1 January 2014 to 1 January 2017. The media articles of the first ten pages resulting from the Google search were included in the analysis. Typically, ten search results appear on the Google search page (ten articles with the topic one is looking for). However, in searching German online media, in some cases, more than one press article was displayed for a particular subject. Therefore, in my research, I took into account and analyzed not just 100 articles, which generally should appear on the top ten search pages, but 138, because that many have appeared on the top ten pages of Google search. All considered entries were online press articles, in the German language.

A variety of types of media and articles were included in the analysis. These were determined by the fact that, the selection of the linguistic material, and therefore of the corpus of messages analyzed, was made exclusively based on their online display on the first ten pages as a result of the order used through the Google search engine. Given that the results displayed through Google, though determined by an algorithm that is not entirely accessible to the public (Das et al. 2007), reflect the attributes of exposed messages such as the popularity of the source, the number of readers and users which click on the displayed links, and the time allocated to reading the message (Choi and Varian 2011), it can be said that articles and news regarding the analyzed topic on the top ten Google pages are relevant to the study in terms of criteria of users and public visibility of the messages. Also, given that the search process, as well as the actual selection of messages (all the messages on the top ten pages), were clearly and consistently applied, one can say that we have complied with one of the fundamental rules of applying the content analysis (Gunter 2000, 56), namely, choosing the text corpus included in the study according to explicit rules, applied consistently and systematically.

The grid of analysis comprised 45 items, each with several categories ranging from 2 to 33. Depending on the unit of analysis, the categories

were either exclusive (with only one possible category to choose, as in the case of items related to the type of media, type of the article, the tone of the article, the main appeal of the article) or multiple (such as in the case of items respecting the topic of the article, the source of information, the controversial issues, the foods presented in the articles).

8.4 RESULTS AND DISCUSSIONS

8.4.1 *Aspects Relating to the Media Coverage: How the Topic of Nutrition Was Mediatized*

The first items characterizing coverage of the analyzed topic refer to the type of media in which the articles were published and the type of articles. According to the findings, most of the articles were published in the online format of newspapers (52 articles out of 138, i.e. 38%), followed by articles on news websites (27%) and articles in reviews or magazines (22%). The articles from other media (websites of TV and radio stations, specialized portals, aggregated websites, news agencies) accounted for 13% of the total of analyzed items, the proportion of articles in each of these media being below 5%.

Most of the investigated articles were articles of analysis, which means articles that gave a more detailed approach to the topic of nutrition, analysis and views of the journalists. From the total of 138 articles, 56 (i.e. 41%) were of this kind, while 32 articles (i.e. 23%) were reportages, meaning those articles in which a particular topic or event, related to the investigated theme, was reported and analyzed, sometimes “on the spot.” The third place in the analysis were the review articles (13% of the total), that is, those articles that provided a retrospective or recapitulative perspective on a topic of nutrition or summarized the current state of knowledge/understanding of the subject, targeting the general public. Other types of analyzed articles were: 13 overview articles (9%), which combined the synthesized content of several specialized articles into one broad-spectrum article; eight simple news (6%), in which the topic was treated or reported, usually succinct, without the journalist analyzing or expressing his/her opinion; six opinion articles (4%), in which reflections and a well-defined and expressed opinion of the journalist was presented, and five interviews (4%).

Nutrition was the main topic of most of the articles (122 of 138, i.e. 88%), while in 13 articles (9%) this was the secondary theme, related to

the central theme (e.g. health, various diseases, lifestyle, and habits). Merely in three articles (2% of the total proportionally) nutrition was only briefly mentioned. These three articles were not considered for further analysis. Therefore, the subsequent analysis corpus (n_1) was 135 items.

From the total of the articles in which nutrition was the main or the secondary topic ($n_1 = 135$), 107 articles were published together with a photo, several photos accompanied 16 articles, 22 articles were published together with a video clip, and 3 articles comprised several video clips. Moreover, in 8 articles out of 135, there was included a graph, 3 articles presented a drawing, and in 8 analyzed articles, there was no picture/video clip/drawing or graph. Thus, a total of 127 articles (n_2) were accompanied either by images or by videos. The large number of photos and videos published along with articles on nutrition issues in the German online media confirms the assessment mentioned above, namely, that media, including print press, turn to visualizations of content, in order to better point out the subject and/or arguments, but also, probably, at least in specific cases, to stir up emotions and feelings (Hänsli 2006), in the present trend of journalism toward visualization, emotionalization, and generally sensationalism. According to the collected data, out of the total of photos and videos published together with the articles, 80% (i.e. images and video clips in 101 articles) presented some foods. In other photos and videos were also other subjects/objects present, although in a significantly lower proportion.

8.4.2 *Content of the Articles: Evaluative Contexts of Mediatization*

This section of the chapter addresses aspects related to the content of the articles on nutrition in German online media. In this respect, discussed are the general topic of the articles, as well as some specific nutritional information, controversial issues, the types of foods mentioned in the text of the articles, and what kind of recommendations, advice, tips, helpful information, or hints are given to the readers.

Most of the analyzed articles (125 out of $n_1 = 135$) had a central topic of nutrition. Other essential topics in the German media between 2014 and 2016 were the risks associated with nutrition and food, diets, diseases related to alimentation and nutrition, nutrition and food related to a specific disease or illness, food (in general or a specific food), and the sustainability of food production.

In addition to analyzing these themes, which constituted the primary or secondary topics of the articles, we were also interested in the presence or absence of some relevant nutrition and/or food issues and aspects, without them necessarily being the central theme of the article. The findings in this respect show that the most common topics and the predominant aspects or issues present in the content of articles on nutrition in German media address health and diseases. Thus, the most risks associated with nutrition and food (present in 74 articles) regarded health issues, for example, articles covering subjects such as the possible negative consequences on the health of the wrong nutrition, as well as of giving up on certain foods, just as the excess in eating certain foods. Moreover, many diets, especially veganism, were looked at from their risks on health, particularly in the case of specific population categories. Concerning the vegan diet, there was noticed the publication of most controversial information on a particular subject: on the one hand, many articles highlighted the advantages to the health of giving up meat and other devised animal products. On the other hand, many articles have drawn attention to the disadvantages and risks of giving up on these products. Such risks were signaled especially with regard to children, teenagers, and pregnant women (risks determined by the lack of certain substances by all means necessary in the process of growing of children or in the healthy development of the fetus), but also without reference to specific population categories, with possible connections, for example, between vegan alimentation and particular health problems or the occurrence of some diseases.

Furthermore, in almost half of the analyzed articles (63), some references were made regarding various medical conditions and sicknesses and their relation to food and nutrition, the most frequent being cardiovascular diseases, hypertension and the associated diseases, diabetes, overweight/obesity, and cancer. In 46 articles, nutrition and food related to specific diseases or illnesses were mentioned. For example, some articles gave tips about the right nutrition for those people who suffer from specific diseases, for relieving symptoms and improving their medical condition, such as lowering high blood pressure or alleviating manifestations and/or effects of anemia, osteoarthritis, acne, insomnia, or flu and cold. Many articles addressed and emphasized the link between wrong nutrition and various disorders, for example, the reported case of a teenager who, because did not eat any vegetables or fruits, lacked vitamins and almost blinded. Other articles have drawn attention to the physical dangers of

different diets, which are, in fact, not necessary for healthy people, such as the gluten-free diet. While necessary in the case of people who have celiac disease (gluten intolerance), this diet can cause people not affected by this condition various health problems and even lead to gaining weight. Such information was emphasized in some articles, all the more so as, according to the same articles, while only 0.4% of the German population suffers from celiac disease, every fourth German avoids gluten or lactose.

A specific case was the set of articles that related to a new condition. Though not yet recognized as medical condition, a proposed eating disorder named *orthorexia nervosa* is characterized by an excessive preoccupation with eating supposedly healthy food, which, paradoxically, can lead to unhealthy consequences, such as social isolation, reducing interest in other healthy human activities, loss of ability to eat in a natural, intuitive manner, anxiety, obsessive-compulsive behaviors, and, in the most severe cases, severe malnutrition and even death. Five articles in German media reported during the considered period about this contemporary disorder.

Other risks that were highlighted in relation to nutrition were those concerning the environment. Some articles raised and dealt with questions like how nutrition of people, especially the Western lifestyle, harm the environment and generally our planet, or how some diets (like, once again, the vegan one), considered by their followers environmentally friendly, actually harm the environment, by forcing too many areas to be used as agricultural lands.

However, compared to the considerable amount of articles that have treated nutrition linked to health and different diseases or disorders, other up-to-date topics have appeared in German media relatively rarely related to nutrition. Among them can be mentioned: big business in food industry (topic in 11 articles out of 135) and animal industry (in 4 articles), national, respectively, European/international policies related to (healthy) nutrition and food (in 8, respectively, 3 articles), pollution (in 4 articles) and deforestation/drought/soil erosion and/or other environmental issues (in 9 articles), genetic modified organisms (in 3 articles), and even junk-food issue (theme in only 7 articles). Moreover, subjects like food sovereignty, packaging of food, ecological/biological agriculture, hygiene related to food and nutrition, and the use of pesticides in food production were seldom mentioned in the articles analyzed, while issues like urban agriculture, the use of disinfectants, and the sanitary norms related to nutrition and food preparation not once.

A particular feature of the articles related to nutrition in German online media was the fact that many of them presented or at least mentioned a controversial issue. In 87 (n_3) articles (i.e. 64% of the total of 135 articles) there could be identified one or more controversial matters or aspects, most of them being health-related issues (in 65 articles), followed by different disputed aspects regarding consumer's risk and safety (in 39 articles), and social, respectively, ethical issues (each of them in 18 articles). Some diets and their consequences have been the subject of numerous controversies in the articles, such as the theme of the vegan diet, but also that of vegetarian nutrition, approached, for example, in an article in the newspaper *Die Welt* (www.welt.de, 27 February 2014) with the title (translated by author) "Vegetarians suffer more frequently from cancer and asthma," while an article in *Spiegel Online* (<http://www.spiegel.de>, 3 March 2015) argues that "Vegetarians are less likely to develop colorectal cancer." Also, food and nutrition in general, the Western lifestyle, and the attitude of people concerning the planet's food resources were subjects of controversial mediatized discussions, in articles like: "Unhealthy diet more dangerous than smoking" (in the newspaper *Handelsblatt*, <https://www.handelsblatt.com>, 19 May 2014); "Too much of the good: When healthy food becomes compulsive" (on the news website *t-online.de*, <https://www.t-online.de>, 30 December 2015); "Gluten-free diet can make healthy people fat" (in the newspaper *Augsburger Allgemeine*, <https://www.augsburger-allgemeine.de>, 15 January 2016); "Overweight in pregnancy: diet can lead to gene mutations" (on the news television website *N-TV*, <https://www.n-tv.de>, 26 June 2016); "Brain damage due to abstinence from meat?" (on the website of radio producer *Deutschlandfunk*, <http://www.deutschlandfunk.de>, 23 December 2015), "Unhealthy nutrition costs the state almost 17 billion euros a year" (in the magazine *Focus*, www.focus.de, 16 September 2015), or "Western diet harms people and the environment" (in the newspaper *Die Welt*, www.welt.de, 12 November 2014). In this last article, as otherwise in other issues too, the author of the article draws attention to the fact that the "Westernization" of the diet triggers type 2 diabetes, cardiovascular diseases, particularly coronary artery disease, and other chronic diseases that reduce life expectancy. Because of this direct link with human health, but also with an environmental one, changing the diet and lifestyle is nowadays one of the significant challenges of humanity.

Another point of interest was the extent to which in the articles related to nutrition some foods were presented or mentioned. According to the

findings, food was present in 91% of the German articles, that is, in 123 articles (n_4) out of 135 (n_1). The most often mentioned foods in German online media were vegetables/legumes and meat and derivatives, followed by fruits, milk and derivatives, cereals, and sweets. Many references concerning other products that were not categorized, separately, in our grid of analysis include soy and various soy products, seed, nuts, sugar and substitutes, or salt (these products were mentioned in 51 articles). Only nine articles regarded the whole food pyramid.

Further, we were interested in the extent to which the foods referenced were dietetic or not, and, within each of these categories, what types of products have prevailed. The results show that, most commonly, both dietary and non-dietary products were presented or mentioned in an article, that being the case for more than three-quarters of the analyzed items (i.e. 76%). In 11 articles, only dietary products were mentioned, in 15 articles only non-dietary ones, while in 3 articles, the presented products could not be categorized as dietetic or not dietetic.

The most publicized dietary products were vegetables, legumes, and derivatives without sugar and salt (except soy), in 82 articles, fruits and derivatives without sugar (in 69 articles), cereals (in 50 articles), low-fat milk products (in 27 articles), and dietetic bread/rice/pastry (in 22 articles). Also, other products like soy and soy products (e.g. tofu, soy milk, soybean oil, etc.), seed, nuts, and substitutes of sugar appeared in 54 articles. On the other hand, the most frequently covered non-dietary products in German media were: meat and derivatives (e.g. sausages, hamburgers, meatballs, etc.), in 83 articles; fat milk products (cheese, butter, etc.), in 44 articles; chocolate and deserts with sugar (in 29 articles), pastry and bread (in 25 articles); salty or sweet products (in 23 articles); alcohol (in 19 articles); fast-food (in 17 articles); sweet drinks (in 16 articles), and ready-to-eat products (in 10 articles). Other non-dietary products, which were not as such categorized in our analysis grid, among which eggs, fat fish, salt, sugar, honey, syrups, sweeteners, and flavors, were also mentioned in 53 articles.

The vast majority of the German analyzed articles presented or at least mentioned en passant recommendations, suggestions, helpful comments, and advice for the future concerning nutrition, diets, and, generally, food and eating. More precisely, in a total of $n_5 = 115$ (i.e. 85%) out of 135 articles, there could be encountered such recommendations and suggestions. Most of them (present in 96 articles) focused on healthy food and nutrition and referred to doctors' and nutritionists' advice, cultural habits,

use of fresh food, and maintaining a balanced life. Other recommendations, apparitional in 59 articles, were related to diets, pointing out information regarding food restrictions, vegan or raw-vegan diet, other diets such as vegetarian, low-carb, and paleo, barriers for the diet, and slimming. Furthermore, in 54 articles, there was useful information, advice, and recommendations referring to various diseases and medical conditions. The most references were made regarding cardiovascular diseases, diabetes, hypertension and the associated diseases, obesity, cancer, orthorexia nervosa, anorexia, celiac disease, strokes, gastrointestinal diseases, and anemia. Finally, some advice was given about health in general (in 51 articles), hinted mostly at the habits related to nutrition and a healthy weight.

8.4.3 Sources of the Information in the Articles and Other Media Coverage Aspects

This last section discusses sources of information in the analyzed articles as well as some other aspects related to the media coverage of the topic of nutrition.

The specificity of the information on nutrition in German online media in the regarded period was the fact that most sources used by journalists to gather their information were scientific. Thus, in 77 out of the 135 analyzed articles, the source of the presented information was an academic, a scientist, or a scientific study or organization. Other frequent sources were also news agencies (in 60 articles) and another media (newspaper/review/TV station/news website—in 48 cases). Besides these, other familiar sources of information were physicians (in 32 articles), health-care representatives or organizations (in 22 articles), nutritionists (in 21 articles), and some state-owned organizations (in 19 articles). Sources of information that could be considered less credible, such as social media, public figures from entertainment or show business, representatives of prominent corporations, and ordinary individuals were rarely used in German articles about nutrition during the three years considered.

In 92% of articles (124 out of 135), different citations and quotes could be identified. In most cases, both people and documents were cited (this was the case in 66 articles), while in 45 articles only people and in 13 articles only documents were referred. As has been stated, most of the sources of information in the analyzed articles were scientific. This fact could also be noticed about the people and documents that were cited.

Most often, by far, the cited persons and documents belong to the scientific field or are produced by it: in 83 issues, a researcher/professor/academic/expert was cited, most often quoted, and in 62 articles, a scientific study/report/article/document was referred. Also, a physician/doctor was cited in 33 articles and a nutritionist in 22. Given these facts, the information provided in the articles must have been relevant and credible. Other citations, in less than 20 articles each, were from representatives of consumer organizations, reports of consumer agencies, representatives of the Government or governmental agencies, national governmental reports, NGOs reports, and chiefs of gastronomy.

Other points of interest for researching the media coverage of nutrition were to what extent the articles were written logically or emotionally, leaving that impression when they are read (the main appeal of the articles), respectively, the extent to which the articles were written in a neutral tone, or instead in a dedicated/an engaged tone, whether positive or negative. According to the research, almost three-quarters of the articles whose content was analyzed, 99 out of 135 (i.e. 73%) used arguments or descriptions based on logic (e.g. invoking scientific facts, verified data, and real history cases). In contrast, 36 articles (27% of the total) were written in an emotional style, the arguments or descriptions presented being based more on emotions, on the appeal to fear, myths, prejudices, or even sophisms. Furthermore, most articles (73%) had a neutral tone, while the rest, in approximately equal proportions, had either a negative or a positive tone. Articles were coded according to the dominant arguments used by their author (as for the articles' appeal) and the prevailing tone used.

8.5 CONCLUSIONS

The research presented in this chapter reinforces the assessment that nutrition is a theme often covered by the German media. In the considered time frame, 2014–2016, nutrition frequently emerged both as a primary and as an ancillary topic, in the context of covering various subjects, from healthy food, diets benefits and risks, sustainable nutrition, to health and sicknesses, environment, lifestyle, and other social issues.

Mediatization of nutrition and food in German media depended upon the specifics of the media. While media targeting the general public presented topics related to food and nutrition in a generally understandable manner, selecting them by criteria oriented to everyday life, the specialized media covered topics of nutrition and related issues in-depth, with the

accordingly specialized or specific orientations, for instance, medical, educational, and agronomical ones. Moreover, broadsheets newspapers tended to make analyses and to provide deliberations, opinions, or well-documented reports, while tabloids mainly covered problematic issues, topics that may be associated with scandals, providing less information and more photos and videos, some of them with shocking content, or at least enough to attract attention. However, one can say that the trend of tabloidization of the press, including negativism, sensationalism, and scandalization, was not prevailing in the German media on the topic of nutrition in the regarded time frame. Although some conflicts and disputed subjects were present, they were insignificant compared to other more serious subjects.

According to the research, the most frequent general “frames” in the German media coverage of nutrition were health and diets. Within them, the most common sub-frames in which nutrition was discussed were, on the one hand, related to health: the link between health and nutrition, and the role of the latter concerning well-being; health risks associated with nutrition and food, in general; health benefits and risks affiliated with specific diets (i.e. self-chosen food regimens); diseases related to alimentation and nutrition; and food and nutrition related to specific illnesses and medical conditions. On the other hand, the most frequent sub-frames employed by media related to diets in their coverage were: the nutritive value of foods, what is health food and the benefits of it; the risks affiliated with unhealthy eating, especially as a result of missing some essential nutrients like vitamins and proteins, due to giving up on certain foods; the risks associated with some specific diets, mainly vegan and gluten-free ones, notably in the case of some population categories: children, adolescents, and pregnant women, as for vegan diet, respectively, healthy people, that is those not suffering from celiac disease, as for gluten-free diet; the risks of exacerbating the healthy nutrition and food and of falling into actually unhealthy extremes, such is the case of those suffering from *orthorexia nervosa*.

Beyond these primary frames and sub-frames in media coverage of nutrition, there have been also other sub-themes that have been publicized in conjunction with nutrition, although to a considerably lesser extent: environment and, within this general frame, especially the environmental risks of human eating needs, nutrition, diets, and lifestyle; food industry and sustainability of food production; national, European, and international policies related to healthy nutrition and food.

Many of the themes in the frames and sub-frames mentioned above constituted or provided subjects for controversies. More than half of the analyzed articles addressed controversial topics, especially related to different risks and the influence of nutrition and alimentation on health, illnesses, and ailments. Moreover, some diets and self-chosen nutritional regimens were divergently debated, with pro- and contra-arguments, both advantages and disadvantages, pluses and minuses being highlighted or disputed. The burden on the environment, the avatars of the Western lifestyle, rooted habits and some traditions, like eating a lot of meat and meat products, and generally the “threats” that strike us from all sides when it comes to what we eat, were all controversial issues handled by German media in the period considered.

Besides addressing many disputed issues, German media also made many and varied recommendations, gave advice and tips, presented suggestions, practical information, and useful opinions regarding nutrition and food. Thus, the majority of analyzed articles (85%) presented a form of recommendations, tips, and suggestions, which mainly focused on healthy food and nutrition, diets, habits related to nutrition, and issues concerning different diseases and medical conditions. Noteworthy is that specialists—doctors and nutritionists—have provided more than two-thirds of these recommendations and useful information, which gives them a specific scientific basis and a high degree of credibility.

One can notice, based on the research results, that while media treated so many issues related to nutrition and food with concern, at the same time they presented a lot of food, reinforcing the assessment mentioned above according to which media constantly attempt to animate food and drink, through the wide range of culinary delights and temptations, and the omnipresent media covered food and drink. Thus, food was present in not less than 91% of articles’ texts and in 80% of photographs and video clips, most commonly being mentioned or displayed both dietetic and non-dietetic products. By presenting so many non-dietetic products, especially meat and its derivatives (apparitional in nearly two-thirds of the articles analyzed), it can be said that the German media content confirms this paradoxical trend (Stange and Leitzmann 2010): on the one hand, to mediatize the importance of healthy nutrition and worrying topics about food, and in particular the link between nutrition and health and diseases, and, on the other hand, to further mediatize many foods, some of them unhealthy, and generally numerous gastronomic enticements.

Moreover, there are also further conclusions and remarks on various aspects of the German media coverage of the topic of nutrition. The general theme of nutrition, as well as its sub-themes, has been addressed within different frames and sub-frames, in various types of online media such as newspapers (broadsheets and tabloids), magazines, news websites, television and radio websites, specialized portals or platforms, aggregated websites, and news agencies. Most of the articles about nutrition in the selected period were not simple news, but articles of analysis, reportages, review and overview articles, and opinion articles. This means that, in most cases, the theme of nutrition has not been treated superficially, frugally or slightly, but in-depth, with detailed, sometimes elaborate information, analyses, points of view, assessments, and deliberations. Besides, nutrition was the main topic of the overwhelming majority of articles resulted from Google search and selected for analysis. Only in a few articles “nutrition” was the secondary theme, while solely an insignificant proportion of articles had the subject of nutrition only briefly mentioned, which made them not to be considered further in the detailed content analysis.

The sources of information used by journalists were in most articles of scientific nature, as were the used citations. In more than two-thirds of the issues academics, scientific studies or institutions, doctors and nutritionists provided the information, and approximately three-quarters of the articles included quotes and citations, many of them from researchers, experts, physicians, and from scientific reports, studies, and researches. Given these facts, most of the information provided about nutrition in the German media had relevance and a scientific basis conveyed by the research. To what extent are the scientific studies, cited and discussed in the analyzed press articles, representative and generalizing, it is a problem for science (medicine, nutrition science, etc.), and not for this chapter, which only addresses the issue of how mass media covered nutrition.

Almost all articles were accompanied by photos and videos (only 8 of 135 articles did not include photos, videos, or other images). This pattern of publishing pictures and videos along with texts, also encountered in the case of German media, reinforce the discussed assessments concerning the current visualizations of media contents. This appeal to images, meant to point out the information or the advocated view better, but also, in some cases, to stir up emotions and feelings (Hänsli 2006), strengthen the idea of nowadays journalism using “eye-catchers,” and maybe the journalistic trend of emotionalization and personalization. Yet, at least in the German

case, although some photos sometimes showed shocking or at least uncomfortable images, like fat, unhealthy junk-food, body parts of obese people, or alive pigs in crowded farms, ready to become a form of “national food,” this visualization trend is not necessarily equivalent to a tabloidization of the press. Because such pictures were only a few, while the majority displayed healthy foods, often vegetables, legumes, and fruits, and most videos had informative, frequently educational contents and purposes. Besides, though some negative elements might have been seen in some articles, as well as a few sensationalistic ones, especially as for the style of approaching or presenting a subject, one can say that, at least in the regarded time frame, sensationalism, negativity, and scandalization were not prevailing in the German media on topic of nutrition. On the contrary, most of the articles addressed professionally, often using scientific sources of information, topical and earnest subjects about nutrition and related sub-issues.

The same conclusion could also be reached by analyzing the tone of the articles, their main appeal, and the impression they made. Thus, the prevailing appeal of the investigated issues was the logical one, that is, most of them used or based on logical arguments or descriptions, and not on various emotions, and the predominant tone was the neutral one, without subjective, engaged inferences of the authors of the articles. Under these circumstances, the primary impression left by most of the analyzed articles was that of credibility and reliability.

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From Nutritious Banks for the Poor to Top Ten Meals Against Love Pain: Food in Bulgarian Media as an Entertaining Zone

Svetlana D. Hristova

9.1 INTRODUCTION

Nothwehr et al. (2014) suggest that people exposed to nutrition facts make healthier food choices and are eager to expand their overall nutritional knowledge and turn it into a lifestyle as well as healthy nutrition patterns. However, the three authors discovered that local US media stories on the topic are often superficial and not balanced due to covering a limited number of topics, such as body fat, providing simplified explanations about food and rarely using nutrition experts or dieticians as news sources. Media knowledge on food, therefore, is insufficient, hence incapable of having an impact and changing nutrition behaviours. What is the situation in Bulgarian media, however?

This chapter seeks to analyse food and nutrition topics in Bulgarian news outlets within a limited period, ranging from January 2013 through January 2017. The hypothesis is that the Bulgarian media would cover

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more profound, that is, politically or socially determined, topics, such as pollution, local communities, national and international food standards, biodiversity, which, in the end, appeared not to be the case. Moreover, the Bulgarian news outlets in the sample seem to cover superficial topics as the stories in the US mentioned above. What is generally sought here is a presentation of the diversity of issues in the Bulgarian online news outlining the focus and messages related to food and nutrition. Measured will be alterations in attitudes and behavioural modification in the audience because interacting with “food media” is not the goal of this chapter.

Under the customized quest, the “News” option was selected, and a topical search on “food nutrition” was assigned. Altogether 77 articles which fell into the mentioned criteria were content analysed. Two main topical megatrends have derived from the media stories on food. These are (1) promotion of healthy eating patterns and (2) health and nutrition in the context of primary and secondary prevention from illnesses through diets. The messages range from “the best foods for Gemini (or another zodiac sign)”, to “Top 10 foods against hair loss/cardiac issues/love pain/headache”. These entertaining texts are usually published without author’s name. What is apparent from a first look is that entertainment sites are typically the preliminary sources of the content for the news sites. It is not difficult to discover that most of the news is cited from food-panda.bg (a site for deliveries in Bulgaria), or the women’s site diets.rozali.com, and so on.

On the issue of whether any serious, events-related topic of the day occurred in the search, two major social events stood out: the quality of food in kindergartens (due to an alteration of the food regulation) and the food bank for the poor (due to the launch of a social enterprise start-up).

Hypothetically, the media outlets, specializing in food and nutrition, have chosen the role of an online entertainment zone, providing readers with texts they would like to consume effortlessly. In large part, the media sample touches upon healthy lifestyle and secondary prevention of diseases. The keywords that could be applied to describe the content of the current media content are “entertainment education”, “diets”, “healthy eating behaviour” and “foods combating illnesses”.

9.2 METHODOLOGY AND EMPIRICAL FINDINGS

A thorough grid of analysis with open codes was developed for accumulating information on the following variables: problem definition, topic, solutions, visuals, videos, presence of a celebrity, controversial issues, source of the article, people featuring in the article and their profile, documents cited, brands of food mentioned, type of food (e.g. dietary or non-dietary and related or not to diseases.), tone of the article, general message and further advice.

9.2.1 Defining “Media Credentials”

These are mainly news agencies or websites. The data indicates that they are simple news and their preliminary source of information is other media. As the analysis showed, the photos of food are random, and they are not related to a particular topic, with no animal image being involved. At the same time, if any video is embedded, there is rarely any food presented in it and quite rarely any celebrities presented in those photos and videos. Only in 58% of the articles (43), food brands are present. The evidence is based mostly on the professional experience and knowledge of the cited nutritionists. Also, and to a lower extent, some business and scientific reports were also present. Generally, the people present in the articles are gender unspecified and of mature age.

It is necessary to put a disclaimer that once the restriction of only “News” has been applied in the Google search, no more than five repetitive news websites appear which reduces the diversity of the media palette. With the only “News” restriction, the researcher is deprived of reaching out to a broader scope of experts’ interviews in other sites or paper-based outlets with an online edition (they simply do not appear in the search that often). The researcher primarily came across outlets such as *vesti.bg*, *dariknews.bg* and *dnes.bg*, since these are considered by Google as news sites and have consistently attracted significant traffic from news seekers. So, 71% of the content of the research sample was generated by these online news agencies; 17% was from newspapers and review/magazine sites, such as standartnews.com, *24chasa.bg* and *capital.bg*; and 7.8% was from the website versions of TV stations (such as *Bulgaria On Air*, *Bulgarian National Television*, *Kanal 3*).

Of the monitored content, 52% is simple news, while 19% can be categorized as opinion articles. Nutrition and food are the primary themes in

86% of the content of the sample and a secondary theme in 14%. Nine out of ten articles are published with random photos (responding somewhat to the topic but having no relation to the people or the events cited). In most of the cases, no animal images are present; the same refers to the celebrities' images. A photo of food accompanies only one-third of the articles. This is despite the fact the online media items are not limited regarding space (in contrast to the newspapers).

9.2.2 *Topic*

Regarding the question as to whether there are any foods present in the article, it comes out that only 40% of the studied content talks about food. It is not surprising that in only six articles food brands are referred to (these are big supermarket chains, companies for meat and milk products, and the names of some nutrition-related public associations).

The most explored topics of the articles are as follows (number of mentions): risks associated with nutrition and food (18); nutrition and food-related to a specific disease or illness (18); nutrition (16); sustainability of food production (14); diets (14); junk food (10); quantity of food (10); organic cultures (9); and national policies related to healthy nutrition and food (9).

The research revealed that the issue defined as "local communities' risks and benefits related to food and nutrition" was the main topic of eight articles. The "food in general" and the "big business in the food industry" topics received seven references. The issue of "national standards and labels in nutrition and foods" had four appearances throughout the whole search.

Other subject matters mentioned during the data collection period, but not listed in the grid of analysis, include food ingredients, consumers' trust in quality food, bio-shops, drive for healthy food, seasonal food, cooking school, food preferences of different zodiac signs, E-agents food elements, less expensive but quality meals, food for good skin, bacteria and the hygiene of dining, farmers' markets and economy of food.

The subsequent topics, though listed in the grid of analysis, have not been discussed at all during the requested media monitoring period: "pollution", "deforestation/drought/soil erosion and/or environmental issues", "global warming/climate changes related to food production" and "biodiversity risks and benefits".

9.2.3 *Controversial Issues*

The most controversial issues in the media sample appeared to be “health-related issues”, “social issues”, “economic, social and environmental sustainability of food production” and “food consumers’ risks and safety”.

9.2.4 *Sources of Information*

In most of the cases, the sources for the articles are other media (33 cases), a nutritionist (20 cases) and a news agency (15 cases). Among “the other” sources are an IT company, *Eurostat*, a voucher operator, a sci-fi journal, a fitness instructor and a food designer.

9.2.5 *Citations*

In 29 cases, there was no citation, while in 28 cases persons were cited. Both documents and persons were referred to in 13 cases, whereas only documents were cited in four cases.

The persons cited in the article were (number of cases) nutritionists (18), researcher/academic experts (8), representatives from a consumer organization (6), retailers (4), school principles (2), intermediary company, fitness instructors (2), food producers, a public figure or a politician, and ombudsman (1).

In 17 cases, personal documents of ordinary people were quoted; in 16 cases were cited reports from the business/industry, in 15 cases were cited scientific reports.

The findings show that the following subject matters received the most mentions (number of): education and information about food and nutrition (50); the role of nutrition to health (33); nutritive value of food (28); the standards of food quality (17); myths and popular beliefs related to nutrition and food (16); modern life versus traditional life (14); other aspects (i.e. food and diabetes, low-quality ingredients in dairy products, import from EU countries, preferences for local food—each by one mention).

The most mentioned food products were vegetables, fruits, milk and derivates, meat and substitutes. However, there were 49 articles where no food was mentioned (which was 62.8% of the media entries).

9.2.6 *Dietary Vs. Non-Dietary Products*

The products presented in the articles are both dietary and non-dietary. The most mentioned dietary categories are “unspecified products” (12), followed by fruits and derivatives without sugar (8) and vegetables and derivatives without sugar and salt (7).

The most referred non-dietary products are meat and substitutes with sugar and salt (8), fat and milk products (8) and ready-to-eat products (6).

9.2.7 *Advice*

These refer mostly to nutritionists’ advice, which suggests a balanced life, avoiding processed food, and reducing the quantity of food.

The recommendations/advice related to health, in general, refer mainly to habits connected to nutrition and avoidance of alcohol.

The recommendations/advice related to diets refer to slimming, food restrictions and hyper-calories.

9.2.8 *Recommendations Related to Prevention from Diseases*

There were in 33 articles that were mostly related to sore throats, lung diseases, gastrointestinal diseases, obesity, skin disease, hair loss, cardiovascular diseases, dehydration, hypertension and associated diseases, high level of cholesterol, diabetes, nausea, inflammation, cancer, arrhythmia and atherosclerosis, and others.

Some unique topics occurred in the media sample. Among those were the following: food is the most natural way to bring people from different social and ethnic strata together; the recipes of centenarians; an art event with an installation of the taboo topic of “human extremities” (which is an art protest symbolizing the garbage that humanity produces daily and calls against the food industry that offers people junk food); the profession of the food designer (the one who fulfils the linkage between science and breastfeeding mother, between doctors and grocery trader, or between farmers and politicians).

In 57.6% of the cases, the articles are logical, and in the rest they are emotional. The tone of the articles is predominantly neutral.

9.3 FRAMING

How could the researcher's findings be framed in terms of a dominant national food and nutrition discourse? Let us seek in the existing theoretical concepts. When scrutinizing the media representation of organic food in the US, Meyers and Abrams (2010) elaborate four frames: ethical frame, health frame, production frame and industrialization frame. The "ethical" frame pertains to the environmentally friendly perception of a clean Earth. Secondly, the "health" side is the understanding that these "real" foods are safe and pesticide-free. The "production" frame discloses the difference between natural food and food, marked with an organic label. The fourth, or the "industrialization" aspect, refers to how business industries play with and benefit from the label "organic".

The frames of Meyers and Abrams could be borrowed for the present study, as the researcher will adjust the scheme by skipping the production frame and adding the "entertainment" dimension. Each of the frames will be elaborated below combined with the current media analysis findings or how Bulgarian media food, health and nutrition landscape address the frames.

9.3.1 *Ethical Frame*

Perceptions were the following: primary prevention from obesity (all ages, with an accent on children) and social dimensions of obesity. The researcher positions the obesity topic within the ethical frame, since it is mostly associated with shame, stigma and personal guilt. Before browsing the Bulgarian media sample, other authors' examples of ethical media framing will be presented.

A robust ethical claim is that food producers capitalize on top of the health benefits of their products. Two controversies appear in this regard. First, the health advantage from a nutrition factor is not considerable enough since the causes for discomfort or disease are multiple. Second, a product has often been exposed with its good side (e.g. milk contains calcium) instead of with its worse side (the high percentage of fat) (Brown and Walsh-Childers 1994, 396).

In line with the above-mentioned example, Kline (2006) draws a parallel between the news content and the advertising space where food commercials do not obey dietary rules; safety issues are often disregarded; there is an abundance of alcoholic drinks, fast food, soft drinks and

tobacco. On the other side, Kline emphasizes, non-ads media give insufficient advice on how to eat healthfully. In Kline's stance, weight is a matter of personal management, subordinated to the "watch what you eat" mentality.

The World Health Organization (WHO) study on obesity (2017) shared similar findings. European studies disclose that media portrayal of obesity accentuates on individual responsibility and may generate a culture of weight, prejudice and stigma. Fat-shaming, bullying, or being judgemental towards people because of their weight and/or eating habits has been frequently utilized as a media tool to stimulate the audience to alter behaviour. The WHO cites studies which demonstrate that fat-shaming has the opposite result, that is, it may pressurize people, makes them over-eat and avoid physical activities.

Further research identifies three main outlines of obesity in the news, which are expanding on what has been said above (Atanasova and Koteyko 2016). The first outline displays obesity as a biological or genetic disorder best solved with medical or scientific solutions. The second concept sees the overweight problem as "a matter of societal responsibility" and highlights the role of government and industry in creating obesity-inducing environments. In the third construction, obesity is a challenge towards personal responsibility, where individuals are ultimately responsible for tackling being fat by exercising physical activity and changing food consumption models.

Obesity has a substantial impact on economic and social development. The healthcare expenses among the elderly in the European region of the World Health Organization are gradually rising due to being overweight, as excessive weight brings about high indirect costs, linked to premature mortality, reduced working capacity and associated loss of income.

Being overweight and obesity contribute to a great extent for developing noncommunicable diseases, reducing lifespan and negatively affecting quality of life. The trend is particularly worrying for children and adolescents since it might turn into an adult epidemic and increase the health risk for the next generation. A representative survey of the National Center for Public Health and Analyses, conducted in 1998, showed that 23.3% of the children of ages 7–8 years were overweight, whereas the same study in 2008 revealed that nearly 30% of Bulgarian children aged 7–8 are overweight and about 14% of them are obese. Bulgarian children between 1 and 5 years of age and of both sexes are also at risk of becoming

overweight, with nearly 9.5% of them suffering from chronic nutrition disorders (*Vesti.bg*, 22 October 2014).

In Bulgarian media, obesity appears in two ways: on the one hand, as a specific area of expertise within interviews with public health officials, and, on the other, penetrating the “entertaining education” news, which promotes “recipes” for healthy living. A distinct feature of the news, which incorporates the overweight topic, is that opinionated experts were interviewed. Another trait of “obesity-related” news is that the representations are neutral and non-judgemental regarding overweight people and unhealthy eating styles (in contrast to the research of WHO 2017). Examples of articles touching upon the quantity of food and weight loss are: “What kind of food Bulgarian school children consume”; “Favorite foods and eating habits of different generations”; “Special ‘diabetic foods’ are a myth!”; “18 foods that help us lose weight”; “Experts advise if you want to lose weight, do not stop eating”; “Valentin Grandev presented a formula for health and good nutrition (Video Lecture)”; and “Gastroenterologist: ‘It is harmful to eat only in the evening’”.

9.3.2 *Health Frame*

Perception was the secondary prevention (obesity, diabetes, etc.). Both media researchers and health professionals are interested in mass media’s potential to affect health (Brown and Walsh-Childers 1994, 389–416). The presumption is that health educators would benefit from media to broadly convey the message of striving for a healthier life. Media influence could occur on two levels: the public level (through public awareness campaigns) and the personal level, which involves the provision of information and models to initiate change in a positive direction (balanced lifestyle, consuming less toxic food, fewer diseases or unhealthy conditions, such as obesity). It is widely known that media would not produce or reproduce any messages which could lead to harmful behaviour, unless one does not consider the advertisements, such as soft drinks, alcohol or tobacco ads (again, this is not the same with the current sample, because it does exclude advertisements).

Vempaty et al. (2003) put forward three levels of prevention conveyed in the media texts, referring to food and health: primary prevention (reducing disease incidence); secondary prevention (shortening the duration of disease through early detection and treatment) and tertiary prevention (less complications and decreasing disability through rehabilitation).

The three levels of prevention are entirely transferable into the present study. From their perspective, food topics within the investigated period reflected upon and could be, subsequently, broken down into ingredients and factors. Additionally, the scheme has been enriched by outlines of discourse strategies aimed at changing behaviours at a particular stage of prevention (also extracted from the supervised articles).

Let us observe the topical mosaic in Bulgarian online media, related to food and nutrition, cross-tabulated with levels of prevention. In the case that media present related to health, primary prevention from illnesses, and balanced lifestyle, the issues and controversies are linked to healthy food ingredients, healthy food which can be compared with quality food, and balanced diet. Also, in this instance the most recommended foods were (number of mentions) the following: fish and other seafood, especially salmon (20); milk and milk products (16); nuts, especially walnuts and almonds (15); spices, mainly pepper, mint, ginger (15); meat, especially turkey and chicken (11); eggs (11); spinach (10); cereals, especially quinoa (9); natural oils, especially linseed, coconut, avocado or mustard (6); tomatoes (6); avocado (5); cabbage (5); banana (5); corn (5); chocolate (5); broccoli (4); coffee (4); and beans (4). Other recommendations were: seasonal vegetables, calcium-rich foods such as broccoli, green leafy vegetables, figs, green soya beans, okra, tofu, oranges, sardines, white beans and raw candies. At the same time, food not recommended were: ready-to-eat sugar-containing foods (waffles, jellybeans, lollipops, cotton sugar in a plastic box, juices with coloring and preservatives, muffins and soft energy drinks); ready-to-eat salty products and fast foods such as pizzas, snacks, croissants, doughnuts, biscuits, chips, burgers, pasta; ketchup, mayo, fried dishes, alcohol and white flour.

In instances when the media cover health, secondary and tertiary prevention, the discussed issues and controversies are: headache, hair loss, skin problems, depression, pulmonary and cardiovascular diseases, dehydration, diabetes, cancer, upset stomach, inflammation, deteriorated blood flow, high levels of cholesterol, hypertension, discomfort, gastrointestinal issues and liver problems. Also, in this case, the recommendations were to eat fresh, unprocessed food, to eat less in quantity for a healthy heart, to keep hygiene, to adhere to low-fat and low-sugar menu, to veggies (because of vitamins), to calcium-rich foods, as well as to improve one's physical activity. What has been suggested to avoid are canned products, microwaving, fast food, soda drinks, ready-to-eat sugar-containing products, and unwashed fruits and vegetables.

“Which diseases kill us” is the title of a series of articles which occurred as an echo from the public acknowledgement of the National Program for Prevention of Chronic Non-Communicable Diseases (2014–2020). According to the document, the chronic non-communicable diseases account for 80% of deaths in the country, as the main risk factors are tobacco and alcohol abuse, malnutrition and sedentary lifestyle. Major chronic diseases, for example cardiovascular diseases, cancers, chronic respiratory diseases and diabetes, are responsible for 60% of all deaths worldwide, continue the document.

Unhealthy diet and sedentary lifestyle are one of the three primary factors for high morbidity and chronic diseases. Unfavourable trends in nutrition patterns in Bulgaria have led to an alarming incidence of overweight and obesity, including in children. The morbidity and mortality from chronic nutrition-related illnesses are also high. According to a dietician-endocrinologist, 70% of the Bulgarians are overweight (33%, overweight; other 37%, obese) (*zdrave.to*, 11 May 2018). Also, in experts’ views, nearly 80% of Bulgarians aged 25–64 do not exercise or have any physical activity in their leisure time.

The media content largely validates the rationale behind the governmental public health programme, as most of the articles recognize the lack of physical activity, alcohol abuse and smoking as quite unhealthy and predisposing towards cardiovascular and other diseases. Among the remarks found in the content-analysed articles, which are in concurrence with the public health documents, are those about minimizing the impact of unhealthy food ads designed for children, and so on.

The next paragraph will present the top health problems in Bulgaria, as embedded in the National Program for Prevention of Chronic Non-Communicable Diseases and juxtaposed to the monitored media sample. It is apparent that the health and physical issues, listed in the National Program as chronic diseases, concur with the most frequently scanned highlights in the media. For example, the recorded discussions on cardiovascular or pulmonary diseases, malignant formations, diabetes, unhealthy nutrition or malnutrition and stagnant lifestyle in the media sample refer to likeminded debate and argumentation in the National Program, with comparable data and surveys quoted in both media articles and the public document. Hence, the media sample mirrors current issues, already put in a governmental paper, through adding a popular language, a more straightforward textual touch and intensified visualizations. For example, news sites put forward the question of what does “healthy eating” mean

and why does it matter in controlling various health conditions. This issue could be viewed as an echo to the recommendations existing in the National Program, which are “reforming food to support a healthy eating pattern and providing quality and safe food for the entire population” and “reducing the consumption of cooking salt”.

Other topics, deployed by the newsfeed, include: Are there “appropriate” and “inappropriate” foods for people with diabetes, particularly children; are people with diabetes allowed to taste the delicious Christmas dishes; should people on insulin therapy consult with a nutritionist? The similar “footage” in the National Program for Non-Communicable Diseases would be the urge to create “regulatory mechanisms to reduce the impact of advertising on foods and beverages contributing to an unhealthy diet intended for children”. Also, “Risk factors leading to [diabetes] are obesity, unhealthy eating patterns, low physical activity, and family history”. This responsiveness and common legitimizing of similar health matters, deriving from food preferences, activity and lifestyle patterns, showcase that the marked issues are quite noticeable and studied, both by media and the national programming experts, and shared remedies have been proposed.

9.3.3 *Industrialization Frame*

Following were the perceptions: industrial food versus natural and organic food dichotomy; food chain stores versus corner shops; social segmentation caused by consumption of mass food versus natural foods. Although the present analysis pertains to food and nutrition in general, the content of the media sample on healthy food (including bio, organic, raw, vegan, slow, natural or home-made) is abundant and prevailing in the content. The fast increase of organic and natural food markets and bio-stalls stimulated more intensified consumption of “bio-dynamic” food, as the Bulgarian edition *Capital* names it (“Health is Food, Food is Health”, 16 September 2016).

Meyers and Abrams (2010) present the market tendency to consume bio-, natural and organic products as a drive to eat healthy, safe and ethically produced food. Bio-food has been viewed as insurance and/or investment in health. Healthy eating lifestyle has been demonstrated in the Bulgarian media too. Bulgarian consumers are becoming willing to pay more for healthier products, as a comparative study of 34 markets points out that Bulgarians believe food without artificial ingredients is always

healthier (which also responds to the ethical framing of the studied content) (Meyers and Abrams 2010).

In a spatial series of articles, interviews and opinions on food and nutrition, the online edition of *Capital Daily* unlocks the topic of social segmentation deriving from different purchasing behaviours. Food and drink sales emphasize to the most substantial extent social polarization where consumers are generally divided into two segments—the first one is inclined to purchase better-quality nutritious products disregarding of the price, while the other segment consumes mainly low-cost food. This is visible even for a category such as bottled water. In the monitored media channels, there is evidence for markers proving the symmetry between higher incomes and consumption of quality food (e.g. capital.bg items, quoted above).

One of the paradoxes of the Bulgarian food market is that despite growing consumer awareness of healthy eating and rising demand for premium-quality products, mass consumption remains highly price sensitive.

Capital series of articles on marketing research on food and nutrition claims that everything that manufacturers and traders work for on the national market is the price. Virtually, they are ready to decrease the quality, taste and the packing presentation for the sake of lowering the price. The reason is, according to marketing surveys, that income of 30% of consumers in the country goes mostly on food.

At the same time, surveys show that nearly 60% of Bulgarians tend to pay more for a healthy product if it is 100% natural. Moreover, 63% are willing to pay more if they know the product does not contain GMOs. According to the marketing survey, cited by *Capital*, 70% of the consumers in Bulgaria say they now have more access to premium products in comparison to 2011. Even though big food chains dominate the market, there is a growing interest in products, “directly sold by the manufacturer”. Stimulated by the fast-growing purchasing behaviour of the clients, nowadays organic foods could be found in natural food supermarkets, conventional supermarkets and discount stores. What is interesting is that the media picture in Bulgaria tends to portray retail stores as providers mostly of industrial foods, while the tendency is for small, local corner shops to become specialized in “boutique” foods, delivered by small producers (e.g. bakeries, butcher’s and milk products shops). Most people prefer the national production over imported one believing that there is a quality difference between the Bulgarian products and the imported ones; European Commission regulation on food labelling; growth of the organic

market; healthy food is the home-cooked food; microwaved products save time for busy people; Bulgarian state standard on foods.

There is a detailed narrative below on specific media food and nutrition messages which the researcher found to be steered towards certain micro-social (within the dimensions of a family, or a household) and macro-social agents (specific social groups, broader society).

In the media sample, visible attention has been demonstrated towards the household economy in the context of rational family budgeting, that is, food habits of the family, purchase of cheaper food from the open markets, home cooking and slow cooking. At the opposite side stand the non-recommended practices, such as purchasing low-quality products (milk which does not contain milk), fast food and non-seasonable vegetables. This whole narrative is situated in the “little social unit” family household setting.

Other messages, regarding deployment of social aspects, concern the broader setting, that of society at large. The issues which were touched upon are modern versus traditional lifestyle; income and food; canteen food; healthy food at schools; obesity among children; food bank for the under nurtured; environment; food at the aeroplanes; food in prison, and so on. What was communicated is that pupils should eat five times a day, quality of food in the school canteens must improve, the remaining food should be used to charity and bio-farming must be sponsored, and so on. What should *not* be done is to throw unused meals or to consume pizza, chips, soft drinks and convenience foods.

9.3.4 *Entertainment Frame*

Perception was to popularize the trend of healthy eating lifestyle as *chic*. The entertainment dimension refers to readers reading what their immediate curiosity is, and the media are customizing themes in order to respond to the expectations of the audience. Vempaty et al. (2003) disclose that people are inclined to interpret stories and think over pieces of information to which they find personal relevance. The scholars presume that the issues receiving coverage are essential to the audience; hence, people invest time into thinking and talking about these issues. The latter actions are likely to evoke individual, collective or policy response (i.e. “personal mobilization” and “community mobilization”). The discourse media strategies can also aim at changing behaviours, the authors claim. In the

Bulgarian sample, this happens through selling out entertainment stories in an “educational” manner.

Paying tribute to preceding studies on the cognitive and behavioural effects of media representations, Kline (2006) assumes that the strength of the entertainment media’s feature is “entertainment-education”. It mainstreams health-promoting communication, through integrating cognitive and behavioural efficiency of entertainment-education messages. In the current sample, the “entertaining” frame has been distinguished within the “healthy eating” prescriptions. The latter encompasses various understandings, that is, regular consumption of organic products, adherence to home-made meals, gardening one’s natural (“real”) products, regularly purchasing from bio-stalls, and so on. Any of these lifestyle patterns, or a combination of them, is viewed as “healthy eating”, mostly perceived as part of quality living. Examples of entertainment-education messages: “Top 10 world forbidden foods”; “Top 10 foods consumed by the Bulgarian students”; “Favorite foods throughout the generations”; “Mobile app for healthy eating”; “Healthy eating according to annual seasons”; “Culinary crimes: 7 caloric bombs, terribly delicious and harmful”; “7 foods for healthy and strong men”; “7 foods to fight headache”; “18 foods that help us lose weight”; “Superfoods to help fight depression”; “Foods ruin the skin and which foods make it radiant”.

Consumers-oriented topics are also entangled within the “entertainment frame”, featuring education, such as the following: “What is your attitude to nutritional supplements? Do we ‘feed’ ourselves from the pharmacies?”; “There are no harmful foods; there are harmful quantities of food”.

9.4 CONCLUSION

Bulgarian news outlets often do not quote credible sources of information, for example public health documents or expertise. Generally, the monitored outlets focus on “tips for healthy eating”, the inclusion of fruits and vegetables in diets and avoidance of (red) meat. On the one hand, the number of sites for health and diets as well as “pink”-ish and woman-oriented online magazines have recently proliferated. Disregardless of how “sexy” the health and diets topics are, few journalists are competent in this area of producing good columns. There are not many journalists with a health and nutrition portfolio in the country; the rest of the writers seem to copy-paste content from websites with similar content. Very often, in

the absence of a dedicated to health and nutrition topic reporter, the editor-on-duty writes on the topic by default. This has led to dietary knowledge shrinking to the mould of recommending only diets with vegetables, nuts and cereals. Journalists need to improve their knowledge of public health and nutrition through attending competency courses at food-related entities and enhanced interactions with nutrition professionals.

The two significant topical trends, for example (1) the promotion of healthy eating patterns and (2) nutrition elements combating various illnesses, are well elaborated in the studied media articles. Despite these two trends, significant subjects seem to be left out from the media content, such as pesticides and herbicides; crops; pollution; global warming and food; taxes related to junk food; biodiversity risks; bio and nanotechnologies related to food; food hygiene and sanitary norms; urban agriculture; drought; soil erosion; animal-related diseases (avian influenza, bluetongue disease, salmonella), and so on. The insufficient presence of some topics or the total lack of other severe issues in the results from the customized search shows that the methodology of the next likewise research should be improved.

The change necessitates, at first, encompassing all media outlets (i.e. the online editions of newspapers) in the search and not only the news agencies; if achievable, the time-consuming paper-based media monitoring in a library is recommended. Second, the reach of the search quest should be expanded to more keywords, including the aforementioned missing subject matters.

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“Nutrition” and “Food” in Online Media in the Republic of Moldova: Content Analysis

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10.1 INTRODUCTION

The Internet influences our existence greatly. Being the instrument of the future, it changes our lives at all stages, modifying the profound aspects of our lives and humanity. It is involved in health care, education, social and political issues.

To begin with, moral people often ask questions, such as: What influence does the Internet have on the way we receive, change, and transmit knowledge and information? Who shares such information, and by what means? In this context, the media is a means of sharing, transmitting, and communicating information.

Generally speaking, capturing and influencing various audiences is a goal of media producers. Mass culture values are met, and public interest, for various media systems, is growing, especially for the young. Research conducted in the field of the influence of mass media systems aims to analyze the messages transmitted through the media channels, the impact on

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the different categories of the public, as well as their content. Any message transmitted by the media has an effect and influence on the public, due to the way it is presented and the content itself. The goal of the message is the modeling of people's behaviors, changing people's attitudes and orienting consumers, and is a target of media communicators and producers. Thus, the role of mass media is directed towards the modelling of information that flows towards people (Drăgan 2007).

In light of this, we notice the influence generated by the media means a change in the perceptions, behaviors, and attitudes of different categories of audience, following the values accepted in contemporary society. Since the leading consumer of the media is the individual, the role of information transmission channels is fundamental to promoting the value systems of the various categories of the existing public.

Today, mass media has a significant role and influence on our lives through the development of new technologies. Besides, our generation is a massive consumer of these technologies. These technologies provide us with information, techniques, models of life and health, which we either accept or subject to a critical analysis. One of the most controversial themes in online media is healthy eating and nutrition, promoting the rational consumption of food and the impact of food imbalance on health. However, nutrition and food issues have considerably increased in recent years.

What is the role of the mass media in this area of interest for the contemporary population? Sociologists claim (Fiske 2003) that media is an education tool applied to healthy lifestyles. It also allows the development of awareness-raising and action plans promoting healthy food. And last but not least, it helps stimulate critical thinking and encourages people to ask questions.

Equally important is that Moldova has over 2.5 million Internet users. That is because there are about three million people in our country. International rankings place Moldova in third place in the world, taking into account the speed of Internet access (Prime.md. 2018). Internet users in the Republic of Moldova are an attractive segment for marketing and advertising campaigns, being especially active people with higher education and substantial incomes.

Most noteworthy, unhealthy diet and low physical activity are among the four leading causes of non-contagious diseases, such as cardiovascular disease, hypertension, type 2 diabetes, stroke, some cancers, musculoskeletal disorders, and some mental illnesses. In the long run, increasing

morbidity by non-communicable diseases will harm life expectancy and reduce the quality of life.

Thus, over 80 percent of the annual deaths in the Republic of Moldova are caused by non-contagious diseases. Cardiovascular disease is the cause of 55–57 percent of deaths per year; cancer is the cause of about 14 percent of deaths, digestive diseases are the cause of about 10 percent of deaths. The burden of illness caused by a poor diet is high and continues to increase (ProSănătate 2018).

Significantly, the Republic of Moldova faces the double burden of malnutrition. On the one hand there are malnutrition and nutritional deficiencies, characteristic of developing countries, and on the other there is overweight and obesity, characteristics of developed countries. Thus, 6 percent of children up to five years old have height retardation, conditioned by chronic energy shortage, and a fifth of children suffer from anemia (MICS 2012). About one-third of women of childbearing age, and over 40 percent of pregnant women have anemia. Half of the adult population is overweight or obese.

One in three Moldovan children suffers from iodine deficiency. Women of childbearing age, women who are breastfeeding, and children are the most susceptible groups for iodine deficiency. Iodine deficiency is determined by the low level of iodine content in the environment, so Iodine Deficiency Disorders mean that the population must always take iodine supplements with their food intake.

On the other hand, about two-thirds of the apparently healthy forty-year-old population has high blood pressure and elevated cholesterol levels. Poor nutrition and associated risk factors are responsible for the annual loss of 50 percent of healthy females and 35 percent of men.

Only half of the children up to seven years consume milk daily, and 62 children percent consume fruits and vegetables daily, with significant differences between urban and rural areas and family income. Fruits and vegetables are more accessible to most of the population only when in season (ProSănătate 2018).

According to a World Health Organization study of 2016, one in four Europeans (about 24 percent) is overweight (WHO 2017), and according to the National Agency for Public Health (2017), about 50 percent of adults (eighteen years and over) are overweight or obese (Raport national 2017). This figure has gradually increased over the last decades. Different factors are the source of this phenomenon: unbalanced and unhealthy

nutrition, a diet low in nutrients, vitamins and mineral salts, insufficient physical activity, stress, etc.

According to the HBSC study (2014), our food choices are dictated by the media: the Internet and television (Deschide 2019). In this context, the statement is valid that: “The one who masters the media and advertising controls the spirits.” However, the population needs to be adequately informed about their health and lifestyle to prevent illnesses before health deterioration processes begin. In the field of health, intensively promoted by online media, the population expects information from health professionals about health promotion, healthy eating, credible (rational) techniques and examples that would facilitate the implementation of designated health care interventions, both physically and mentally. Nevertheless, the maximum effect relies on individual responsibility to access a healthy lifestyle.

Overall, the issues mentioned above have provoked us to carry out the current study. The research in question focused on a specific issue, namely the impact that online media can have on eating habits and preferences, on food and nutrition education, on healthy lifestyles, and on the application of knowledge to prevent related illnesses resulting from an unhealthy diet.

This study aims to analyze how “nutrition” and “food” were reflected in the online media in the Republic of Moldova, in terms of completeness, accuracy, content, and information.

10.2 METHODS AND MATERIALS

To collect data, the search engine www.google.com was used, where the top ten pages displayed were analyzed. The reference period ranged from January 1, 2014 to January 1, 2017. The keywords, which were introduced separately in the search engine www.google.com, were “nutrition” (“nutriție” in Romanian) and “food” (“alimentație” in Romanian). For the accuracy of the applied technique, a step-by-step filter has been developed that included the selection and sequential ticking of the following menu items: settings and tools of the google.com webpage; news; time range; geographic settings (Republic of Moldova); display language of results; and sort by relevance.

Most importantly, when searching for the word “nutrition”, twenty-five articles were found, and seventy-five words were searched for “food”; altogether one hundred articles were studied.

In order to carry out a quantitative analysis of the articles, a grid analysis was developed. The grid analysis included forty-five items.

Moreover, database development and primary statistical processing were performed in Microsoft Office Excel (IBM, New York, USA), which allowed descriptive and quantitative analysis of the content of selected research articles.

10.3 RESULTS

The topic of nutrition was addressed in nine articles found on news and media sites/websites, four articles in TV stations/websites of TV stations and newspapers, three articles in aggregate online sites and news agencies, and two articles in review magazines. Most frequently, the subject of food was addressed in articles from TV stations (50 percent), 24 percent in newspapers, and 11 percent in other places. Other sources, such as reviews/magazines, news agencies, and news and media sites/websites, provided 15 percent of articles.

The analysis of articles by type is reflected in the text below. Thus, most articles about nutrition were simple news articles (nine articles), and opinion articles (nine articles). The other seven articles were articles of analysis, reportage, interviews, and online discussions. The theme of food was most commonly reported in simple news articles (51 percent of cases), followed by reportage type (25 percent), and articles of analysis (11 percent). The other 13 percent of articles are interviews, opinion articles, and review articles.

In addition, the search process highlighted thirteen sites for the word “nutrition,” and six sites for the word “food.” The names of the media where articles were published in which the keyword “nutrition” was detected were: www.timpul.md (nine articles), www.unimedia.md (one article), www.e-sanatate.md (one article), www.publica.md (four articles), www.adevarul.ro/moldova (one article), www.independent.md (three articles), www.alllady.md (one article), www.diez.md (one article), www.ea.md (one article), www.e-medicina.md (one article), www.thewoman.md (one article), www.ziarulnational.md (one article). The word “food” was found in the following websites: www.timpul.md (twenty-three articles), www.unimedia (three articles), www.publica.md (thirty-seven articles), www.independent.md (four articles), www.moldova.eu (three articles), www.positivepeople.md (one article).

As the main theme, the word “nutrition” was found in 68 percent (seventeen articles), as a secondary theme in 16 percent (four articles); and cases in which “nutrition” was only sporadically mentioned did not have a consistent approach in the articles. Respectively, for the word “food”: the main theme had 40 percent (thirty items), the secondary theme 15 percent (eleven articles) and the sporadic approach had 45 percent (thirty-four items).

Finally, for the later stage of the research, only those articles in which the keywords were the main topics and articles that presented them as a secondary theme (related to the main theme) were selected. In total, twenty-one articles mention “nutrition” and forty-one articles mention “food.”

In most cases, the articles published on the subjects of “nutrition” and “food” were accompanied by a photo; while a few articles had just a thematic drawing or a video clip.

Regarding the images that accompanied and represented the researched articles, we mention that in most cases the images in the articles contained food of vegetal and animal origin, both dishes and beverages. Out of the total of the articles analyzed, no animal images were found.

Even if it is known that images of celebrities, public figures, or political figures accompanying the articles add value and credibility to the content of these publications, these images were not found in any of the analyzed articles.

The most frequent themes reflected in the article headings for the two researched subjects were: nutrition, the quantity of food, diets, diseases related to alimentation and nutrition, risks associated with nutrition and food, food in general (without any specification), national standards and labels in nutrition, and foods and organic cultures.

Another goal of the research was to find and analyze some controversial issues. In five articles on nutrition, controversial issues were highlighted concerning food consumers’ risks and safety, food producers’ costs and benefits, environmental issues, health-related issues, economic, and the social and environmental sustainability of food production. Also, controversial issues have been highlighted in five articles on food consumers’ risks and safety, food industry issues, health-related issues, and social issues.

Analyzing the sources of the articles, the most frequent sources of information used to write articles for both “nutrition” and “food” were: news agencies, a newspaper/TV stations/websites, academics/scientists, the Government, health-care representatives, consumer organizations,

NGOs, producers in the food industry, individuals/ordinary people, nutritionists, doctors.

Thus in fifteen articles which address the main topic "nutrition," the following types of people were quoted, for instance: a representative of the Government/of a Government agency, a nutritionist, a researcher/professor/academic/expert, a representative of an international/European agency, a parent, a physician/doctor, a chief of gastronomy. Seven articles quoted documents, such as a scientific report/article, a national Government report, an International/European report, a national law related to health, ailments, and nutrition, and a NGO report.

Likewise, in the articles analyzed on the subject of "food," sixteen cases were quoted by persons, who were: a representative of the Government/of a Government agency, a nutritionist, a researcher/professor/academic/expert, a parent, a businessman, a physician/doctor, a consumer, a chief of gastronomy. Furthermore, seven articles quoted documents such as a scientific report/article, a national Government report, an International/European report, and a report from the business/industry.

The topics discussed in the articles were multiple and diverse, as follows: The role of nutrition to health; education and information about food and nutrition; the nutritive value of food; the role of the consumer concerning food and nutrition; hygiene related to food and nutrition; sanitary norms related to food and nutrition; International/European rules related to food and/or nutrition; Governmental/national rules related to food and/or nutrition; modern life vs traditional life; and the standards of food quality.

To the questions: "Are there any foods presented in the articles?" and "Are there presented any foods in the videos or/and photos/images published together with the articles?" in only fifteen articles about nutrition was food addressed. In nine, food was also present in the pictures, drawings, and video posts that accompanied these substances. The most commonly mentioned foods were: cereals, vegetables, fruits, milk and derivatives (cheese etc.), meat and meat-substitutes, drinks, sweets, coffee and/or tea, spices. It is worth mentioning the fact that very few articles mentioned final dishes, such as: mamaliga (polenta), sarmale (cabbage rolls), nettles, cream, yoghurt. And the food brand (*Lipton*, *Mars*, *Knorr*, *Twix*, *Uncle Bens*) was presented only in a single article.

On the other hand, food was mentioned in twenty-eight articles where the keyword was "food," out of which in twenty-two articles food was also represented in pictures, drawings, and video postings adjacent to the

articles. Moreover, in this case, the most commonly mentioned foods were: cereals, vegetables, fruits, milk and derivatives (for example, cheese), meat and meat-substitutes, drinks, coffee and/or tea, oils and/or fats. Food brand names were not reported. The most discussed dishes were: wheat, porridge, snacks, germinated seeds, yoghurt, and mayonnaise.

Analyzing the type of food according to its importance for health, we conclude that the dietary products were presented in fifteen articles on nutrition. These were about: bread, rice, pastry, cereals, fruits and derivatives without sugar, low-fat milk products, low-processed food without sugar and salt, food for small children, bottled water, vegetables and derivatives without sugar and salt. Non-dietary products were mentioned in twelve articles. These products were sugar-rich cereals; meat and meat-substitutes with sugar and salt; pastry and bread; fat milk products; chocolate and desserts with sugar; fast food; sweet drinks; salt or sweet products. Other foods presented in the articles were: tea, coffee, spices.

In articles on "food," the dietary products were presented in twenty-eight publications. These were about: bread, rice, pastry, cereals, fruits and derivatives without sugar, low-fat milk products, aliments for small children, vegetables and derivatives without sugar and salt. The non-dietary products were mentioned in thirteen articles. These products were: sugar-rich cereals, meat and meat-substitutes with sugar and salt, pastry and bread, alcohol. Other foods presented in the articles were: tea, spices, fats (oils etc.).

Analyzing the content of the articles has highlighted the following fact: all articles published in the reference period speak of the population or individuals in general, without reference to their number and gender. Thus, only in nine articles were people of both sexes were mentioned; in other articles the gender was not specified.

Moreover, one of the objectives of the study was to identify the age of the target population referred to in the subject matter. Thus, the age of the people mentioned in articles with the keyword "nutrition" was highlighted. Children (aged less than ten years) were mentioned in three articles, young people (nineteen to thirty-five years) in three articles, mature persons (thirty-five to sixty years) in two articles, older adults (over sixty-one years) in one article, age non-identified/age undefined age in twelve articles.

The people described in articles with the keyword "food" were: children (aged under ten years) mentioned in five articles; teenagers (eleven to

eighteen years) in one article; young people (nineteen to thirty-five years) one article; non-identified/undefined age thirty-four articles.

In nineteen out of twenty-one articles with the main topic "nutrition" and in thirty-seven out of forty-one articles with the main topic "food," there were cases/situations related to food and nutrition presented with recommendations/advice for the future.

Equally important, a significant objective of the study was to identify the ultimate goal for which recommendations and advice were given. So, the recommendations/advice given in the article refers to healthy food and nutrition (I), health in general (II), diets (III), and diseases (IV).

The following applies to articles about nutrition: The recommendations/advice related to healthy nutrition and food (I) refer to doctors'/nutritionists' advice (eleven articles), giving up smoking (one article), a balanced life (two articles), use of fresh food (one article), advice for losing weight (one article), food supervision by a specialist (two articles), cultural habits (seven articles), quality of food (twelve articles), quantity of food (twelve articles).

In contrast, the situation is different with food articles, where the recommendations/advice relating to healthy nutrition and food (I) refer to doctors'/nutritionists' advice and were applied to twenty-three articles: moderate intake of alcohol, one article; cultural habits, three articles; quality of food, nine articles; and quantity of food, eight articles.

The recommendations/advice related to health in general (II) were present in nutrition articles. They referred to habits related to nutrition (fifteen articles), physical exercises (six articles), personal development (four articles), intellectual activity and leisure (two articles), healthy weight (seven articles), friendship environments (two articles).

Similarly, the recommendations/advice related to health in general (II) has been presented in articles about nutrition concerning habits related to nutrition (twenty-nine articles), physical exercises (nine articles), and healthy weight (seven articles).

In the articles with the word "nutrition" there were identified recommendations/advice related to diets (III), which refer to losing weight (six articles), related to national culture (one article), related to food restrictions (three articles), to food low in lipids (four articles), to vegan or raw-vegan food (two articles).

Comparatively, for articles with the word "food" the following were identified: the recommendations/advice related to diets (III), which refer to losing weight (one article), related to religion (one article), related to

national culture (two articles), related to food restrictions (three articles), to food low in lipids (three articles), to vegan or raw-vegan food (one article).

Analyzing the contents of the articles, we noticed that some publications had made recommendations/advice related to diseases (IV) in twelve cases for nutrition articles and twenty-one cases for food articles. These generally referred to gastrointestinal diseases (in four articles on nutrition and eleven articles on food), use of specific medicine/treatment (in an article on food), cystitis (in an article on food), infertility (in an article on food), high levels of cholesterol (in two articles about food), anemia (in each article on food), immunity diseases (in three articles on food), diabetes (in three articles on nutrition and four on food), obesity (in three articles of each), hypertension and associated diseases (in two articles on nutrition and four articles on food), and cardiovascular diseases (three articles on nutrition and nine articles on food). In eight articles, specific diseases such as cancer and AIDS were mentioned.

All things considered, in most cases the articles had a logical appeal and only in two cases an emotional one.

Analyzing the sample as a whole, we can mention that the tone of articles was positive in thirteen cases, negative in four cases, and neutral in forty-five cases.

10.4 DISCUSSION

Online mass media encourages people to attain a slim body by diet and exercise through awareness and the application of a healthy lifestyle. In like manner, such exposure inspires social comparison processes that typically have adverse effects in self-evaluation. In order to understand how the media influences individual lives, we are studying the media impact on Indian culture, where ordinary people often spend their last rupees but are pleased to see their beloved films and actors. The study reveals that movie stars are venerated as gods, and the people of southern India even raise what they call Mandir (places of worship) to such idealized people (Saini and Goyal 2008).

Equally important, recent data shows that the media is often a significant predictor of bodily dissatisfaction due to its suggestive influence, and secondly due to the subsequent infiltration of bodily standards by the online users (Balgiu 2010).

In general, Moldovan websites that provide nutrition and food information to the general public can be characterized as of medium and often variable quality. Judging by the number of hits, we can assume that users are seeking and searching for nutrition and food information, but they will only find about half of the information needed for a good in-depth understanding of the subject of personal interest.

In the Republic of Moldova, according to a survey conducted by Gemius during 2014–2017, the most popular news websites browsed daily by 84 percent of Internet users aged over fifteen were www.timpul.md, [www.unimedia](http://www.unimedia.md), www.diez.md, www.ea.md (Bati 2017). The results obtained by us confirm that the displayed websites have a maximum online audience.

Moreover, we should note that the titles of online articles were quite suggestive and reflected the content of the article. Thus, we can talk about writing and creating skills tailored to the target audience. However, we cannot talk about the quality and scientific value of articles that are of significant interest to the population because they directly or indirectly influence the health and well-being of users/the public. The results of our study showed that the most frequent topics covered in the article titles were about nutrition, diets, food quantity, and disorders caused by food and nutrition.

Especially relevant is the fact that among the sources used to write articles, we find foreign news agencies, other foreign media sources (websites, newspapers, TV), which cited international reports, government documents, and less scientific studies and health experts.

Following the trends of contemporary society, the most common topics discussed in the articles were about the role of nutrition in health, health education and nutrition and food information, the nutritional value of foods, the role of the consumer to nutrition, food sanitary rules on food, and international rules on nutrition and food. These topics are also important for users/publics abroad (Ostry et al. 2008; Popescu et al. 2018).

Modern society is characterized by a quantitative and qualitative excess of food (especially in the context of the predominant use of refined and concentrated foods, in combination with the sedentary lifestyle of current civilization), alternating with food deficits, which are often severe and have adverse consequences on the state of health on extended segments of the world population (Dunca 2004).

For instance, it has already been proven that food plays an essential role in promoting and maintaining health throughout life; an unhealthy diet

playing an important role in the determinism of many chronic diseases with alarming incidence and prevalence in today's civilization, such as: obesity, type 2 diabetes, cardiovascular diseases, cancer, osteoporosis, and dental diseases.

Most importantly, a common feature of obesity, diabetes, cardiovascular disease, cancer, osteoporosis, dental disease etc., however different their production mechanism might be in some cases, is that each one has a high potential for prevention. In the case of those already suffering from one or more of these conditions, the complete and appropriate medical treatment is necessary, but treatment is considerably affected by the medical, social, and economic costs involved. The implementation of the primary prevention programs by public health measures is currently considered to be the most affordable and cost-effective method that can be adopted in addressing the epidemic expansion of these chronic diseases worldwide (Mincu [1993](#)).

The primary prevention target for these chronic diseases are the so-called “modifiable” risk factors, in which food habits and healthy lifestyle are distinguished; interventions on these two elements may also be supplemented, as appropriate, with other risk factors such as chronic smoking, alcohol consumption, overweight, dyslipidemias, and hypertension (Mincu and Mogoş [1998](#)). It is noteworthy that the approach of all these non-anogenic elements can be made as a unified one, through global measures of lifestyle improvement—the most accessible and efficient possible (Mincu [2004](#)).

To summarize, today's industrialization, urbanization, and mechanization processes in many regions around the world are changing eating habits (eating high calorie, high fat, and low fiber food) and lead to a sedentary lifestyle that favors obesity in the population, which in turn adds an increased risk for type 2 diabetes, hypertension, and other cardiovascular diseases. On the other hand, from this emerges prevention and control programs dedicated to all these diseases, which will be able to find many common elements to facilitate their long-term implementation in the population (Caldeira et al. [2017](#)).

10.5 CONCLUSIONS

Regarding the phenomenon of social influence, we can conclude that in contemporary society, online media systems play the role of transmitting cultural values and models to various audiences. Online media systems

play a fundamental role in shaping the perceptions, behaviors, and attitudes of different population groups over current and vital topics.

Additionally, in terms of analyzing the content of articles promoted by online media, we can report that using the search engine www.google.com (and the Republic of Moldova), we found that most of the articles were selected with the country of origin as Romania (68 percent). In general, nutrition and food information on websites with the extension “.md” (Republic of Moldova) was of medium and variable quality. The volume of articles was, in most cases, small, which shows that the subjects were not exhaustively addressed. In many cases, articles did not specify where the data came from, and the scientific information did not refer to authors, bibliographic sources, or websites.

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A Critical Analysis of Romanian Media Representations of Food: A Qualitative and Quantitative Perspective

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The representation of healthy nutrition in the media raises more significant problems compared to other subjects, especially as, according to Laura Fernández-Celemín and Anna Jung (2006), these type of issues should be reserved to sections covered by science journalists. Journalists writing articles which cover various scientific topics, such as nutrition and health, have a unique responsibility to their readers. In contrast to other journalists, such as those covering sport-related topics, whose readership is already familiar with the rules of the game and the players, science journalists must often introduce their readers to a new game in every original article. These journalists must first of all understand the science, and then put it over in a form that is both interesting and intelligible for someone who is not a specialist in this field (Fernández-Celemín and Jung 2006).

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In the last few years, this call toward journalistic responsibility does not seem to be taken into account anymore, because new evolutions undergone by the media have interfered with both journalists' specializing in a particular field and the publishing rules of media articles. This phenomenon has happened due to the confusion related to the journalist profession, as the online media and social networks have emerged.

For the moment, one of the most widely known concepts related to eating habits is that of healthy nutrition. This topic has found its way into every single newspaper, magazine, or social media platform; articles contain dietary counselling, nutrition research, or the latest crazy diet (Patience 2016).

Not surprisingly, there is much interest in the subject. It is because over the past decades there has been much discussion on the connections between difficulties that affect social wellbeing on the one hand, and physical and nutrition health-related problems that are due to eating habits on the other. The question "how did we get here?" is usually answered by referring to factors such as the technological progress undergone by the food industry, the efforts of food producers to produce food that is appreciated by consumers and at the same time cheap, or the emergence of artificial additives.

As far as food research is concerned, industrial research has focused on improving the nutrients contained by processed foods, whereas national research has not been able to invest in social, behavioral, and political research regarding diet and health. It can be noted that the research concerning "healthy eating," which focused on food products, has moved to studies focused on adequate nutrient intake and diminishing health risks for European citizens (McCarthy et al. 2011).

A report published last year focused on the comprehensive civic and political movements that have emerged over previous years due to public anxiety induced by aggressive marketing, developed by both food producers and owners of big supermarket chains, at the very points of sale:

As a consequence, there is an enormous range of campaigning movements and political ideas related to food, its production and its consumption encompassing vegetarianism and veganism, organic food and all its variants, fair trade, and community-supported agriculture. Some of the negative consequences of how we produce food have certainly encouraged some consumers to consider AFNs as a juxtaposition to the "supermarketisation" trends explored earlier. For others, food anxieties are played out within

conventional retail outlets, as supermarkets respond to new demands. (Winter 2018, 24)

To solve as many problems as possible related to nutrition content and eating habits, some governments and/or NGOs have started regulating this domain.

In the USA, regulations concerning nutrition have skyrocketed in an attempt to improve public health. Authorities have created countless commissions such as the Dietary Guidelines Advisory Committee (DGAC), which is made up of nutrition, biochemistry, epidemiology and statistics experts. The author suggests that these experts are not enough; they need to be joined by specialists from other domains (Slavin 2015):

When committees, such as the DGAC develop policy recommendations, those committees should be comprised of a balanced and well-rounded set of perspectives and expertise. Ideally, a scientific nutrition committee would include not only experts in nutrition, biochemistry, physiology, epidemiology and statistics but also food science, food production and processing, food policy and behavior.

Although there is hope that nutrition and public health policies regulation could solve some negative consequences of bad nutrition habits, many international bodies draw attention on the disastrous effects that have already manifested to both individuals and public authorities. A study issued in 2005 (Lock et al. 2005), shows that The World Health Organization (WHO) reported that an adequate intake of fruit and vegetables could prevent about 2.7 million deaths recorded worldwide in 2000.

The spread of the current worldwide trend related to “healthy food” reached Romania as well. What are the sources most frequently met in our media concerning food/nutrition articles?

Another aspect not to be overlooked is that the scientific sources quoted by media are not always disinterested, being financed by food or pharmaceutical corporations that are acting with strong determination in promoting different food diets to prevent and/or cure disease, in parallel with their involvement in supporting the research activity.

Although it is rather difficult to find academic support in analyzing the non-ethical social influence, the subject was found in the works of Allan J. Kimmel (2017). He states that the researchers studying different types of social impacts are confronted with a multitude of ethical aspects during

the development of their investigations. The same researcher considers that the extensive range of ethical issues, governmental regulations, and institutional revisions researchers are confronted with will influence their decisions in continuing or ending scientific endeavors that may affect human welfare.

11.1 METHODS OF RESEARCH

In order to achieve a systematic and comprehensive analysis of the media content, the authors have adopted both qualitative and quantitative approaches for the present study, which was conducted from January 1, 2014 to January 1, 2017, on newspaper and magazines articles written in the Romanian language.

This chapter focuses its attention on twenty-eight highly circulated Romanian national newspapers and magazines available online, all meeting the criteria of being the most-read news and entertainment websites at the time of the research.

The online publications that were selected represent various genres, from the highest quality mass media (i.e., the national news agency *Mediafax*) to the tabloid type newspaper (*Eva* online magazine). Through this varied typology of media sources, the authors have ensured the existence of a sample representing diverse readerships regarding social status, age, level of education, but with a common interest in food culture, dietary and eating habits.

The first step was to perform the quantitative content analysis, with the purpose of measuring the frequency of the content, and the second step was to conduct a qualitative content analysis of a subsample of the database, which has the merit of presenting a reflexive and in-depth perspective. The results of qualitative and quantitative nature have been examined separately and synthesized in the “Conclusions” section of the present chapter.

11.2 QUANTITATIVE ANALYSIS

The quantitative analysis is based on the articles stored in a database dedicated to this research article, after meeting the inclusion and exclusion criteria mentioned above. The research articles related to eating habits were published online in various Romanian language newspapers and

magazines and were manually selected and stored in an Excel document database.

11.2.1 *Including and Excluding Criteria*

A database consisting of mass-media articles written in the Romanian language was established, using a list of keywords (adjectives, nouns, and verbs) related to national food culture, eating habits and healthy eating (i.e., dietary change, nutrition education, feeding behavior, food choice). The objective was to identify consistent eating habits that could be considered definitive for the Romanian public.

The keywords mentioned above represent the inclusion criteria and could be identified anywhere in the article, from the title, the subtitle or more specifically, in the body of the article.

As the selection of the sources narrowed, the process yielded one hundred newspaper and magazine articles from Romanian online mass media, all corresponding to the inclusion criteria established above.

We decided to exclude all duplicate articles and any papers related to food psychology, such as the problematic of eating disorders or any psychiatric or pathological approach to the relationship between the Romanian public and eating behaviors.

Moreover, unless nutrition and health-related topics were mentioned, articles strictly dedicated to recipe preparation were also excluded from the present study. Similarly, the authors have eliminated all the articles that did not predominantly focus on food and nutritional behaviors.

Finally, we should also mention that the trustworthiness, validity, or credibility of the content were not criteria of evaluation or selection for the existing database.

11.2.2 *Results of the Quantitative Analysis*

From a total number of one hundred media articles, eighty-one were published in “quality” mass media, twelve in medium quality sources, and seven in tabloids or similar quality media. A vast majority of the articles were feature articles and editorials, and just eight articles were standard news format, which referred to legal or educational issues of high interest at that moment for the Romanian public.

Only four articles regard regional issues and are more likely to target a public living in a specific area or county; ninety-four articles addressed the

Romanian public as a whole, and any individual with Romanian language proficiency sufficient for understanding the message of the article. However, two articles, in particular, refer to international events such as the Nobel Prize and other news concerning corporative management events.

Besides the characteristics of the media source, another coding criterion was the target audience and subsequent defining traits.

The articles were coded to whether they mentioned the sex, the age, or the general educational level of the reader. For encrypting an article as specifying either feminine or masculine gender, an article was expected to include a specific mentioning of each gender individually. One has noticed that there is no meaningful association between the content of the article and the gender category. One could imply that women tend to be more preoccupied with any topic concerning eating habits and dietary changes, but this is no more than a mere supposition.

However, the age category plays an essential part in the present quantitative research. Therefore, four articles make a direct reference to children, either in the heading or in the body of the text, and to how parents or family should mold their eating habits. Another twelve articles refer indirectly to any reader under the age of eighteen, which represents the legal age for entering adulthood in contemporary Romanian society.

The level of education stands apart as another critical distinction for the current content analysis. Two articles refer specifically to dieticians and refer to legal reforms of the related profession or to prospective dieticians, nutritionist, trainers, and people interested in achieving a superior level of education and specialization in this field of activity.

Regarding the content of the articles and the main idea of the message, the authors have noticed that almost two-thirds of articles, more specifically sixty-four, make use of words such as "correct," "golden rules," "healthy," or "unhealthy" in the body of the text. Moreover, twenty-four articles described health issues or even physical health risks associated with different eating habits or food preferences.

From all one hundred articles, thirty-two focused on a single food item (i.e., processed meat, bread, cereals, dairy products, coconut oil, salt, sugar), and balanced arguments either pro or against its healthiness and its impact on the reader's physical health.

Only two articles were connected to highly sensitive topics such as life-threatening diseases, for example, cancer, and the most productive lifestyle

concerning food behavior to enable a cancer patient to achieve the fastest and the steadiest recovery.

Four articles referred to specific medical issues that represented no real danger to the patient's life long-term, but have a high chance to affect at the most on a mild scale the quality or comfort of life (i.e., menopause, cellulite, acne, gluten intolerance, diabetes). The raw vegan diet was mentioned in only one article, but "weight loss" was the focal point in fifteen articles, unlike "weight gain" as the primary objective, and not something to be avoided, in just three articles.

A remarkable fact is that thirty-one media articles mentioned celebrities or famous dieticians, doctors, and nutritionists directly, for endorsing various theories, ideas, or trends related to the eating habits of the Romanian people, with the sole purpose of gaining credibility, social validation, and acceptance from the public.

Furthermore, twelve articles mention several specific scientific arguments or even international experts and researchers, pleading for the truthfulness of the publicized message.

The articles were classified as positive, negative, or neutral toward the "subject" of the research, the eating and dietary habits of the Romanian public. Two sets of criteria have been used, negative or neutral. The context refers to the framing of the story, and content, based on the facts, the information, and the ideas of the story.

Forty-three articles appear to be positive in tone, pleading in favor of a design, dietary trend, or food item; thirty-eight were neutral, whereas nineteen had a negative tone, meaning that the content was more likely critical toward various ideas, the quality of food items, and their effects on the public's general state of health.

11.3 QUALITATIVE ANALYSIS

The qualitative content analysis suggested by Graneheim and Lundman (2004) was used to explore on a deeper level the eating habits, the perceptions and attitudes of the Romanian people toward food and the concept of "diet." While easing the categorization of the articles by source and content, this method also presents the advantage of facilitating the interpretation of the material and the contextual meaning and offers insight to a vast panorama of social and cultural trends, which are defining for contemporary Romanian society.

For the present study, the same database was used for both quantitative and qualitative content research. After conducting on a manifest level the introductory analysis phase, which consisted of establishing the codes, the categories, and the subthemes, the authors have noticed the predominance of the “healthiness” concept, as a general theme for the entire database.

11.3.1 Results of the Qualitative Analysis

Moreover, four subthemes have been identified concerning the selected articles, considered representative for the research topic chosen: food education, food trends (i.e., vegetarianism or veganism), nutrition in case of sickness, and food as a socio-cultural component in today’s Romanian society.

11.4 DESCRIPTION AND INTERPRETATION

Overall, the most widely covered subtheme was the one of food education (forty-two articles) which appeared the most frequently, while “food as a socio-cultural component” occupied a close second place (twenty-eight articles); topic-wise, “food trends” came third (nineteen articles), and the last subtheme, “nutrition in case of sickness” ranked last (eleven articles).

11.4.1 Food Education

Almost every media article framed “food” regarding the “healthy–unhealthy” dichotomy, more specifically “right–wrong” concerning the physical health of the reader. One has also noticed that the primary objective is usually the achievement of a harmonious physical state of health, while psychical and mental health is mostly ignored.

The topics of bread, meat, cereals, and sugar are the ones most covered in the present database, and the clusters of food items are usually associated with several main characteristics and are graded accordingly, from the least healthy to the healthiest ones. For instance, “whole foods,” such as vegetables, fruit, lean meat, medium-fat dairy products, are regarded as having the medium positive impact on the public’s physical health, while quinoa ranked as one of the healthiest food options available at a reasonable price and easy to procure.

Canned food, beer, white bread, and junk food are presented as unhealthy food items, and the authors have also noticed the media's tendency of showing in an antithetic manner two distinct foods, solely to emphasize the present differences and their impact on Romanians' health.

Furthermore, another striking tendency is to associate the educative process with a quantitative approach, making the results easier to measure and emphasizing the length of time necessary to achieve the targeted changes (i.e., "ten Steps to change your diet," "five myths about diet and nutrition," "nine golden rules for a healthy diet," and so on).

On the other hand, when food items are discussed, what matters is the quality and its nutritious characteristics—not necessarily the cooking method, places from where one can buy it, or any sensory aspect related to that food in particular (i.e., taste, appearance, and smell are seldom named). More likely, the food is associated with concepts such as vitamin intake, fiber, carbohydrates, and calories.

The reader's familiarity regarding the food is also another critical observation. Every food investigated or criticized was part of the Romanians' daily diet, and the high degree of familiarity represented one of the factors which attracted the audience to read it.

The general objective of all these articles concerning the subtheme of educating the Romanian public is to pursue a fit and physically healthy body.

The articles are predominantly written from a gender-neutral perspective. At the same time, the age group criterion continues to remain a significant one; for example, the issue of the correct and healthiest diet for young children or adolescents is approached directly, or at least frequently mentioned by a large number of articles.

However, no pro-active learning takes place: there is no information about promotional campaigns, or dietary advice in health service settings, to enable a direct communication relationship with the public, and no evidence of feedback.

Finally, if one looks at the stylistic and linguistic composition of the sampled media articles, the quantity of expert knowledge words becomes remarkable. There is either a high quantity of medical expressions and specialized terminology, semantically accessible only to a minimal segment of the public, or almost no medical concepts at all (in this case, words such as "calories," "daily intake," or "sugar quantity") have been regarded as general terminology.

11.4.2 *Contemporary Food Trends (i.e., Vegetarianism or Veganism) in Romanian Media*

As with Western European countries and America, also in Romanian media the interest seems to be increasing, but in Romania certainly does not have the same impact. However, the interest rate appears to be very high: Romanians' preference toward vegetarian, vegan, raw-vegan, organic, and ecologic food has increased dramatically during 2018, up to a massive 800 percent.

Moreover, the vegetarian trend is mentioned and approached as a main topic more often than veganism or raw veganism, both of which which do not receive the same amount of attention and interest from the Romanian media.

The articles mentioning veganism and vegetarianism seem to lack consistency of research in presenting scientifically validated arguments, while the popular opinions prevail, and tend to be often shown as "sufficient" in convincing the Romanian public.

Notably, the vegan trend is depicted as "pro and against," and embracing a vegan lifestyle is looked upon with doubt and as unsustainable. However, pursuing a "detox" or a vegan diet for a certain period is present as having many positive effects and readers are encouraged to try it, under the careful and immediate supervision of a doctor.

Unlike the previous subtheme of food education, Romanian media does not associate the existence of food trends directly with the concept of "body," but rather with their impact on a more general level.

What prevails is the nutritional value of these trends, and if there are any health risks imposed by these diet lifestyles. For instance, several articles claim that veganism, as a permanent lifestyle, is considered to cause significant nutritional deficiencies, such as complex B and D vitamin deficiencies. By emphasizing the potential dangers of vegan diets, these media sources present them as inadequate for children and teens, even in the short term.

A final aspect the authors noticed is that media sources tend to corroborate the vegan and vegetarian lifestyle with celebrities and public figures that have tried them short term or adopted them in the long run or permanently.

11.4.3 *Nutrition in Case of Sickness*

In the category of nutrition analysis in the case of sickness, two possible situations were identified when food is looked upon as having consistent therapeutic and healing power. The first one is when the patient has a disease that does not represent a threat to health but is a continuous source of stress, affecting the quality of life and the level of self-esteem, such as asthma, obesity, diabetes, cellulite, Crohn's disease. The second situation is when the patient struggles with a potentially life-threatening illness, such as cancer.

In both situations, the articles were academically written, in a detached, impersonal style, almost imitating the doctor-patient relationship.

The keyword for this theme is "healthy lifestyle," meaning that the readers were regularly advised to adopt positive behaviors toward a healthier diet and to exercise frequently. The illnesses were usually associated with harmful and damaging long-term habits, such as smoking, obesity, and emotional stress.

On the other hand, improving or curing various illnesses was associated with eating a well-balanced diet, regularly engaging in physical activity, and not smoking.

However, there was no mention of the "genetic factor," the importance of "oral health," or the vitamin C intake necessary for the body. Similarly, the preventive approach is entirely ignored, and foods are regarded as useful only when one confronts him/herself with the illness, and not as necessarily having the potential to lower the health risk.

There are two perspectives related to the diet a sick or recovering person should follow: the "eat more," and the "eat less" lifestyles. For example, the content of the articles encourages the public that struggles with different illnesses to increase the consumption of fruit and vegetables for better health and amelioration of symptoms. The fruit and vegetable consumption is encouraged through messages that emphasize the quantity, and not necessarily the quality: for example, "Eat five different fruits or vegetables per day," or up to "six fruits every day."

The "eat more fruit and vegetables" strategy is regarded as highly effective in the healing process of cancer and other skin-related illnesses, while processed foods and high-fat meals are highly recommended to be avoided, no matter the health issue.

Portion control is associated with obesity's treatment, where the authors have encountered pieces of advice such as "eat 30 percent less and

replace it with vegetables and fruit,” or “cut the sugar by 50 percent,” and so on.

Another food or nutrient targeted by the articles located in the database is salt, and the severe health impact of high salt consumption. Salt reduction is recommended as one of the most effective methods to improve one’s diet, and most of the articles guide the reader how to reduce salt intake as part of a healthy diet and to cure oneself.

Another food recommended to be eaten in a smaller quantity is white sugar. Moreover, replacing it with honey or brown sugar is also a viable option. The articles discourage the consumption of sugar and aim at increasing the already existing negative public awareness toward “white sugar.”

For instance, patients at risk of diabetes or those already suffering from it should pay attention to their white sugar intake in particular, but also the hidden sugars, such as in sugar-sweetened beverages.

The articles that tackle the connection between diabetes and nutrition are querying the contribution of these soft drinks toward severe complications of diabetes, such as blindness or amputations.

11.4.4 Food as a Socio-cultural Component in Today’s Romanian Society

The last subtheme brings into discussion the legal and vocational connections between food and the Romanian society at the present time.

The content corresponding to this section emphasizes the crucial role of nutritionists and dieticians in public health, and the necessary conditions to satisfy in order to qualify and work in public health.

Besides the required academic knowledge, there is an increasing awareness that the mission of a dietician or nutritionist extends far beyond informing and educating the public diet-wise, but should also engage in a proactive and bilateral communication relationship. Therefore, in this context, he/she becomes morally obligated to contribute to improving the patient’s motivation to adopt a healthier lifestyle.

Moreover, the articles inform the public about the existence or the implementation of nutrition education programs or different school policies related to food and diet, in several Romanian regions, such as Bucharest, Timișoara, Iași, or Buzău.

One can conclude that there is a noticeable tendency to provide insight into the field of nutrition education in Romania: the design, implementation, and graduation of academic programs in this field.

Another article sums up existing programs initiated by the Romanian government to increase awareness and to promote healthy eating habits in public schools, by incorporating nutrition education into the school curriculum and by educating teachers and parents during regular and conventional meetings.

Moreover, there is also some information about various PR events like workshops or informal meetings about nutrition, which have a predominantly informative and counseling purpose. However, the articles concern only the public and the private sector, and there are none about the non-governmental domain.

11.5 CONCLUSIONS

To sum up, one very disappointing result of the qualitative content analysis was that no letters from readers on the nutrition, diet, or health topics appeared in any of the selected articles. It seems that the public awaits calmly and gently to be informed and educated, to be told what is right from what is wrong, but not to assume an active role in communicating with diet experts, nutritionists, dieticians, or any other party that might have an influencing factor in this matter.

Reflecting on removing the opinions of the target public from the online media articles does not cover the steady and continuous points of view dedicated to nutrition/diets of the social-media-active audience. The old investigations or sociologic researches related to population behavior regarding healthy food might balance the differences between the social actors quoted in the media articles. An increased responsibility of the journalists toward healthy nutrition would be wanted as media might contribute to creating a healthy nutrition trend involving health professionals, patients, advocates, politicians, researchers, and public communication specialists, as stated by Valentina Marinescu in “Media Coverage of Health and Illness in Romania” (2016, 200).

Health-related news from the media functions mainly as a factor that can influence the actions of doctors, patients, lawyers, and politicians and that news has become the main target in discussions between researchers in the medical field, the information related to health, and in the field of communication.

The Romanian media focuses disproportionately on the degree of the healthiness of various foods, which are often characterized merely as adequate or not for three typical situations: a weight loss diet, a weight gaining regime, or for just achieving a healthier life by including the food item in one's daily intake. Therefore, the primary purpose remains one of educating the Romanian public, even though this takes place preponderantly by engaging informal social leaders, and not genuine experts. Given this conclusion, we consider that public health expert advocates should engage more with the media, to shift the public's perception toward an authentic food education process.

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Media Coverage of Food Issues in Romania: A Longitudinal Analysis

Valentina Marinescu

Mass media play a crucial role in informing the general public about scientific developments. A 2005 Kaiser Family Foundation survey reported that 40% of respondents indicated that they get health information mainly from the media. In comparison, 20% of respondents reported getting health information mainly from health professionals and 14% from family members and friends (The Henry J. Kaiser Family Foundation 2005). Health information reported in the media has been shown to influence individual behaviours (McIntosh and Blalock 2005; Grilli et al. 2002). While recently print newspaper circulation has decreased, mainly giving way to the Internet and other electronic media, print newspapers continue to play a primary role in public health agenda-setting and provide the base content for many other forms of media (Roberts et al. 2002).

Food has generated new forms of media engagement through its uptake on social media, photo-sharing sites and apps, among other media forms. Scholars of food and lifestyle media have frequently identified changes in contemporary food media and food politics as primarily consumer-driven and, in particular, as a reflection of the increasing global influence of

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neoliberal, consumer-oriented modes of citizenship (Miller 2007; Lewis 2008; Ouellette and Hay 2008). Much of the literature in this area has focused on the politics and personal food practices of consumers (De Solier 2005; Johnston and Baumann 2014; Leer and Povlsen 2016) and on how these are framed and addressed in media and other texts (Rousseau 2013; Bradley 2016; Lavin 2013). Such studies tend to consider the emerging consumer politics surrounding the health, environmental and animal welfare impacts of conventional food systems, as well as the practices of taste, distinction and lifestyle involved in the purchasing, preparation, consumption and mediation of food.

At the same time, concern has been raised that some mainstream science reporting aimed at the general public includes inaccuracies (Henderson et al. 2000; Philo et al. 1994) or other shortcomings, such as incompleteness, hype or bias (Stryker 2005). In one review of over 500 health-related stories, satisfactory ratings were given to just 33% of stories for quantifying harm, 35% for discussing the quality of the evidence and 56% for seeking independent sources and exploring conflicts of interest (Schwitzer 2008). Previous research has also shown that nutrition coverage has often been sensationalist, with headlines not accurately reflecting the scientific research (Basu and Hogard 2008) and based on reporting preliminary research as a “breakthrough” (Bartlett et al. 2002). It is common to present contradictory messages or an unbalanced view about health and nutrition in many media articles (Nagler 2014; Hackman and Moe 1999; Gross 2009). However, newspapers do not exist to provide a free public health service to the public but to provide newsworthy articles (Len-Ríos et al. 2009).

Borra et al. (1998) concluded that “most nutrition news failed to provide contextual information”. Possible inaccuracies and insufficient practical context question the value of nutrition information via the print media in terms of the capacity of individuals to obtain, interpret and understand health information in ways that are health-enhancing (Saranjit and Lennard 2004).

In Eastern European countries, the interest in topics related to health, nutrition and communication is only at the beginning. Taking into account the fact that there are few pieces of research on this topic, I made a quantitative study of articles published in the Romanian media on the topics of food and nutrition. The analysis was made on a sample of 197 articles published by Romanian online media. The word used to identify the articles on the “News” section from the Google search engine was “food”.

12.1 DESCRIPTIVE ELEMENTS OF ROMANIAN MEDIA COVERAGE OF “FOOD”-RELATED ISSUES

Some studies (Kawachi and Berkman 2000; Wilkinson and Marmot 2003) have stressed the impact of social determinants (e.g. socio-economic status, social integration, race and ethnicity, place, environmental support, and social policies) on individual healthy dietary habits and the interventions aimed at addressing them (Sorensen et al. 2003; Smedley and Syme 2000a, b; Viswanath et al. 1991). The importance of social determinants for health has been discussed from the “ecological perspective”, which suggests that individual health behaviours are subject to the influence of factors across multiple levels which are mutually influential and interdependent (National Cancer Institute 2005). It has been recommended that public health interventions should take into account multiple factors which come from multiple levels, including the individual and the environment (Smedley and Syme 2000b, c). Likewise, in health communication, there has been an increasing emphasis on understanding how communication behaviours of individuals and effects of communication on individuals are influenced by a broader social environment (Demers and Viswanath 1999; Viswanath 2006).

At the same time, in recent decades, the public desire for information on nutrition has increased (Ayoob et al. 2002). More and more members of the audience have quoted the print media as a critical source of information on nutrition and food (Grilli et al. 2005; Holgado et al. 2000). However, a lack of empirical research reported in the media on topics like the quality of food and nutrition.

I have been interested to see how topics related to “food” have been covered in articles published by Romanian media.

The number of articles published on “food”-related issues in Romanian media varied in the period 2014–2016. 31.10% of articles were published in 2014, 39.30% in 2015 and only 29.60% in 2016.

Most of the food-related articles were published in newspapers (28.9%), on TV websites (27.90%) and aggregated sites (18.90%). Also, 14.20% of the articles were published in reviews or magazines, and news agencies published 9.10%. Only one article (0.50%) was published on the website of a radio station, and one article (0.50%) was published on a website of news media.

At the level of the entire sample, most of the articles published were analytical (55.30%), followed by reviews, 18.80%, and simple news, 13.7%.

In the three years considered, there were only 5.60% of general TV programmes on food and 3.6% interviews about food in Romanian media. Only two programmes (1%) presented the issue of food, while 2% were opening articles published by Romanian media.

Most articles (88.50%) were published together with a real photo, 3.60% articles were published together with a drawing, 3.20% articles had a graph that explained the text and in the case of 4.70% of articles a video was also published together with the main article.

Slightly unexpectedly, only five articles (2.50%) had accompanying image/videos of an animal, while in the case of 124 articles (62.90%) the published image/video presented some food. Six articles (3%) also showed a famous person (from entertainment, politics, arts etc.).

The most important source of articles were other media—27.30%—followed by a nutritionist (9.50%), a doctor (8.60%) and an academic or scientist (8.20%). The government was the source for 6.40% of the total sample of articles. In the case of five articles (2.30%), the source was a news agency, while for the other five articles (2.30%) this source was a retailer. At the same time, one-third of the analysed sample did not specify any source of the published information (30%).

Nearly half of the articles (44.20%) do not cite a person or a document, 19.30% of them cite a person and 20.30% cite a document. When the type of citation was analysed in more depth, the analysis showed that the people who were most cited in all articles were a doctor (31%), a nutritionist (23.3%) and a researcher (14.7%). Only 6 articles (5.2%) cited a representative of the government, and 11 articles (9.50%) cited a businessman. Three articles (2.60%) cited a customer, two articles (1.70%) cited a young person, two of them cited a politician, and a further two cited a representative of a customers' organization together with a further (1.70%) for journalists.

Almost half (45.2%) of the documents cited in the sample were scientific articles or reports. Ranked second was the national report of the government (9.50%), a report from the business or industry (9.50%) and an international or European report (9.50%). Ranked in the third place was a national law related to food or/and health (8.70%) and a report from a consumer agency (6.30%). The documents which were cited less were personal (letters, diaries) (4%), historical documents (2.40%) and a document from a regional government (0.80%).

From the total sample, 44.70% of articles presented controversial issues about food. Most of them were related to social problems (25.60%),

problems in the food industry (20.50%) and the costs and benefits for the food producers (17.90%). The health-related controversies were presented in 12.80% of the total number of articles, and the controversies about costs and benefits for the food consumers appeared in 7.70% of the sample. Controversies related to the environment represented only 2.60% of the total sample, and ethical controversies appeared in 2.60% of the articles.

The main topics covered in the sampled articles were nutrition related to illness and disease (47.70%) and nutrition in general (46.70%). Diseases related to food and nutrition accounted for 26.90%, risks associated with nutrition and food (26.90%), food in general (without any specification) (24.90%) and diets (21.30%). A smaller percentage of articles had as their main topic big business in the food industry (11.70%), junk food (11.20%) and food quantity (10.70%). The topics least covered in the articles enclosed in the sample were bio- and nano-technologies related to food, pollution and biodiversity risks and benefits (each representing 0.50% of the total sample) and the food-related rights of the consumers (0.60%).

For the entire sample analysed, the most frequently mentioned food-related aspects were the role of nutrition concerning health (81.70%), the nutritional value of foods (68.50%) and the quality standards for foods. The least cited aspects of these items at the sample level were urban agriculture (1.50%), pesticides' use in food production (4.10%) and the use of food disinfectants (5.60%).

For the sample as a whole, our results showed that the food articles most often mentioned were vegetables (44.90%), fruits (37.20%), meat and its substitutes (35.20%) and the entire food pyramid (31.60%). On the second category of foods mentioned in the articles, we could include milk and its derivatives (cheese etc.) (25%), sweets (17.30%), drinks (15.30%) and oils plus fats (13.3%). Spices (2%) and coffee plus tea (9.70%) were the least types of food mentioned in the entire sample.

While in 93.40% of the analysed articles, some foods were presented, only 12.20% mentioned specific food brands. The most frequently mentioned brands for food were those produced by the large chain stores like "Cora", "Carrefour", "Kaufland", "Metro", "Auchan" and "Lidl".

In the case of half of the items in the total sample (50.8%), the articles presented some dietary and non-dietary products. The dietary foods most often presented throughout the sample were sugar-free fruit and derivatives (85.40%), vegetables and sugar-free derivatives (82.10%) and cereals (46.40%). Meat and sugar and salt derivatives (50.40%), as well as

chocolate and sugar desserts (51.20%), were the most common non-dietary products presented in the entire sample. The dietary products which were less present in the articles were aliments for small children (6.60%) and bottled water (9.30%), while non-dietary products less presented were frozen desserts (3.30%) and salt or sweet products (8.90%). Fats (62.40%) and coffee (35.80%) were other food categories presented in the articles.

More than half of the articles in the analysed sample present situations and make recommendations about food and nutrition (54.80%). The most important recommendations, related to food made in the articles analysed referred to diseases (61.90%), healthy food and nutrition (61.40%), diets (22.80%) and health in general (10.20%).

Regarding the most important recommendations related to health in general, we could notice that the most important were those related to maintaining a healthy weight (32%) and regular outdoor activities (also 32% of the total sample). Secondly, we could rank suggestions related to physical exercises (24%) and, thirdly, recommendations related to intellectual activities and free time (8%). The last place in this list was occupied by recommendations related to personal development (3%) and working and living in a friendly environment (3%).

When considering the most important recommendations for a healthy diet and nutrition, it should be noticed that most of them referred to the whole food quality sample (66.70%), the use of fresh food (59.70%), avoiding processed and/or canned foods (24.80%) and living a balanced life (23.30%). Following doctors' advice was ranked seventh (10.90%), while the supervising of food by a specialist was mentioned only in 3.9% of the total number of articles. At the same time, the issue of food quantities could be ranked as the fifth (19.40%) and cultural habits related to food was ranked in sixth place (12.40%). There were a significantly lower number of articles dealing with moderate drinking of alcohol (only 4.70%) and stopping of smoking (3.90%).

As far as recommendations related to diets are concerned, almost half of the sample included diets which involved one or more food restrictions (45.10%), followed by diets low in lipids (25.50%) and diets for getting slim (23.50%). Draconian and strict diets came in fourth place (13.70%), followed by vegan and/or raw-vegan diets (11.80%). Only 9.9% of the total articles related diets to Romanian national culture and 2% referred to diets involved in religious practice.

For the entire sample, the most important recommendations for diseases were those related to cardiovascular (19.70%), gastrointestinal (18.90%), obesity (18.10%) and diabetes (17.30%). With 15.70% of the total sample, recommendations related to hypertension and associated diseases came in fifth place, as well as advice related to a high level of cholesterol (15.70%). Recommendations related to allergies were ranked sixth (11%), and ageing-related recommendations concerning food came in seventh (10.20%). Advice related to food in the case of immunity diseases came in eighth place (8.70%). Dialysis (0.80%), cystitis (0.80%) and infertility were the diseases with the lowest percentages of food-related advice.

We could also notice the fact that there were also recommendations for other diseases related to the functioning of the brain system (10.20%) and cancer (10.20%).

Most articles on the total sample used logical arguments to present the topic of interest (88.80%), while only 11.20% used emotional arguments. At the same time, the tone of those articles was neutral for 78.70% of the total sample, 14.20% presented the food-related issues in a positive tone and 7.10% negatively covered them.

12.2 MEDIA FRAMES OF “FOOD”-RELATED TOPICS IN THE ROMANIAN CASE

Entman (1993) defined frames and framing as a process:

To frame is to select some aspects of perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation. (1993, 52)

Referring to the research tradition of framing theory, D’Angelo (2002) identified three central paradigms: the constructionist perspective, the critical approach and the researches, which used the cognitive perspective. If the constructive approach focused on the interaction between journalists and frames (Shah et al. 2010), the critical paradigm considered that frames are mainly social and that they varied from a social and cultural point of view (Ettema and Peer 1996; Gamson and Modigliani 1989). In the meantime, the cognitive perspective assessed that framing effects were the result of the negotiation processes existing between the audiences direct knowledge of an event and the media frames (Baresch et al. 2010).

In the existing literature, we can also identify several classifications of frames. Iyengar (1990) distinguished between two main types of media frames: episodic frames—those covering the news in personal terms, providing specific cases, individual accounts, personal experiences—and thematic frames—those offering relevant information for more extensive analysis, outlining the general trends around the phenomenon or event presented through the use of statistics or data from various sources. De Vreese and Boomgaarden (2003) also identified two different types of media frames. Firstly, issue-specific frames—which are used for specific media events, and allow detailed and in-depth analysis for specific events (but this analysis is difficult to generalize in the construction of some theories). Secondly, there are generic frames—these refer to different topics in various contexts and time frames, allowing generalizations of results. In his analysis, Scheufele (2004) presented two different types of frames: formal-abstract frames (which refer to a particular event or episode covered in the media) and content-related frames (that can transmit meanings centred on more global issues).

In the case of the Romanian media, specific interested is in the frames used by journalists to present the “food”-related issues. Five main frames have been identified for the topic of interest: “Nutrition”, “Diet”, “Risks”, “Disease” and “Food”.

In the case of the frame “Nutrition”, the primary sources of the articles have been a nutritionist and the government, the persons cited were a nutritionist and a businessman, and the cited documents were government reports, international reports and reports from the food industry. In the case of this type of frame, the data analysis indicated that the national and European rules regarding food were mentioned, the role of food induction in society was also mentioned and elements related to food marketing (actual marketing, food labelling) were present (like the mention about the use of pesticides for the food production). At the same time, the articles written under this frame emphasized the relationship between nutrition and health, the nutritional value of food and the role of local agriculture in food production.

For an article written under the “Food” frame, the main source of information was the government, and the journalists cited businessmen and/or doctors and governmental reports, scientific articles and/or reports from the food industry. As in the case of the “Nutrition” frame, for the “Food” frame, the regulations (national and European) related to food and/or nutrition were mentioned in the article, and a particular

emphasis was placed on elements related to food marketing (marketing such as labelling the products, emphasizing the role of the consumer). However, in the case of using this type of frames, journalists included in their articles additional information related to myths and popular beliefs about nutrition and food, local agriculture/local herds, urban agriculture, ecological and biological agriculture and agro-industry.

The articles written under the “Risks” frame used the highest degree of scientific sources (scientist, expert, nutritionist and doctor) alongside the government as the primary source of information. At the same time, these articles incorporated in an obvious way the scientific expertise; in this case, the journalist cited nutritionists and/or doctors, together with data and information from scientific articles and/or European and international reports. However, those articles mentioned only the food quality standards, elements related to public hygiene and sanitary norms in the field of the food industry defined the food-related issues.

For the articles written using the “Diet” frame, the journalists used nutritionist and the government as the source of information. They cited nutritionists, governmental, international and food industry reports. Those articles mentioned the rules (national and European) related to food and nutrition and the role of nutrition to health. Also, these articles contain information related to the role of food producers concerning food, food sovereignty, local agriculture and the agro-industry. A specific element recorded only in the case of the frame “Diet” was the fact that those articles are the only ones which emphasized elements of food education and food literacy.

The use of the “Disease” frame linked to the government, as a source of information, and cited government reports, as well as scientific articles. Nobody was cited who supported statements from the articles. The most important aspects mentioned in these articles were the national regulations regarding nutrition and the role of nutrition to health and the sanitary norms related to nutrition and food preparation.

12.3 CONCLUSIONS

It is well known that food media has a long history, the cookbooks being among the earliest printed books (Mennell 1996). As Collins (2009) showed, food programming is one of the oldest genres of radio and television, and it was initially aimed at instructing women in cookery and home maintenance (Collins 2009). By the 1980s, the emergence of food

journalism and food criticism had developed new audiences for food media with their “instruction on enjoyment rather than production—knowledge about, not knowledge of how to” (Miller et al. 1998). The more recent expansion and proliferation of politically infected food media texts draw upon this long history of pedagogical instruction, and, at the same time, it is the result of two conditions: the intensification of consumer anxieties about food risk, and significant media industry change. The growth of food media during the 1990s occurred alongside a period of peak concern about the risks of industrial agriculture. Outbreaks of bovine spongiform encephalopathy (BSE; colloquially known as mad cow disease), foot-and-mouth disease, and deadly foodborne illnesses caused by salmonella and *Escherichia coli* contamination revealed shocking practices that the industry had previously kept hidden from public view and highlighted a failure of the European and American governments to ensure the safety of both farm animals and consumers. As Campbell (2015) stressed, persistent energy crises and worries over “peak oil”, in addition to concerns about the health and environmental damage caused by synthetic fertilizers and pesticides, galvanized public interest in food system change during this time (Campbell 2015). Many of the most well-known food exposés revealed the deleterious economic, health and environmental effects of industrial food systems (Belasco 2014). In the decade that followed, “campaigning culinary documentaries” fronted by celebrity chefs exposed additional food systems issues, including animal welfare and seafood sustainability (Hollows and Jones 2010; Bell and Hollows 2011).

Eastern Europe presents a somewhat different image of media coverage of food and nutrition. Our analysis of food coverage in the Romanian media indicates that there was a minimal appeal to scientific evidence in the coverage of these topics—almost half of all articles enclosed in the sample did not mention a person or a document when they addressed the food topic. Also, when the coverage was on “food”-related issues, the focus was almost exclusively on the coverage of certain aspects of food and nutrition concerning health and disease, nutrition in general and diseases of food and nutrition. This led to very little coverage of other aspects—in particular those related to food production, national and European legislation on food and nutrition, consumer rights in food and nutrition. As the main characteristic of media coverage of “food”-related articles, as our analysis showed, mass media have focused on a healthy lifestyle (hence the diets necessary to achieve physical ideals) and diseases. Few articles have been linked to food consumption, global problems related to lack or

abundance of food in Romania or elsewhere, rules and laws targeting the food industry. We can also add that the leading brands associated with food were those of large hypermarkets worldwide (e.g. “Carrefour”, “Cora” and “Auchan”).

At the same time, the five frames identified by our analysis (“Nutrition”, “Diet”, “Risks”, “Disease” and “Food”) have pointed out the variate use of sources and of “primary definers” (e.g. government, scientists, experts, businessmen, doctors and national or European institutions) in covering the “food”-related topics. As our analysis pointed out, only in the case of “Diet” frame the Romanian journalists had connected the food and nutrition issues to a broader framework (food literacy). Meanwhile, in the case of “Disease” and “Risks” frames their approach was mainly informative (e.g. the use of scientific sources of information, the medical expertise to explain the topic of interest and the mentioning of information related to food safety and sanitary norms in the text).

It can be assessed that in the case of Romanian media coverage of “food”, this topic was presented mainly in direct relation to modern diets and healthy lifestyles, on the one side, and diseases and health, on the other side.

We can add in the end that the Romanian media coverage does not have a perspective on nutrition and food concerning the food industry, regulations and the social system.

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But Where Are the Tastes of Yesteryear? Mapping the Commodification of Communist-Era Food Brands

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13.1 INTRODUCTION

Thirty years after the fall of communist regimes, where do communist-era food brands stand, in terms of branding strategies and sources? Several research directions can be explored linking disconnected topics such as communism, brands, and nostalgia: the nostalgia discourse, memory and material culture, as well as the use of nostalgia in marketing and branding strategies.

Research and case studies, in marketing, address the theme of nostalgia that is not based on direct experience. In this area, explorations are mainly guided by an instrumental approach, with articles that can be traced to the beginning of the 1990s on the distinction between personal and historical nostalgia (Stern 1992). The use of nostalgia in the advertising field brings several theoretical milestones: one of them relies on the distinction between personal and historical nostalgia, made by Marchegiani and Phau

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(2010) when putting a critical lens on different consumer behaviour responses depending on the type of nostalgic appeal. Communication in the advertising industry is considered to be related to collective memory processes, where an idealized image of the past has been used to represent commodity images for consumers, by framing commercial goods as golden memories (Meyers 2009) or by using images that are widely shared and part of collective memory, but also appeal to personal nostalgic memories (Hakoköngäs 2016). The commercial use of nostalgia in the MarCom industry, as part of a broader commodification of the past, was critically examined with the concept of “retrotyping”, designing an advertising practice where idealized images of the past are reconstructed in order to exploit a “generalized sense of pastness rather than a sense of particular pasts” (Pickering and Keightley 2014, 90). A similar perspective was approached with a case study describing how the “look and feel” of certain brands take part in the process of prefabricating memories resulting in an idealized past of the brand (Douaud and Niemeyer 2018). There is also growing literature on the emergence of an industry of post-communist nostalgia, where various objects have been analysed recently, such as the dynamics of collectables and memorabilia markets and the subsequent re-appropriation and production of new symbolic meanings (Bach 2014), as well as the online marketing of post-communist nostalgia identified mainly in social media (Jeziński and Wojtkowski 2016). Local nostalgia discourse draws its sources mainly from the communist past, amplified by the recurring anniversaries of the fall of communism, and has been commercially exploited in various ways: as ironic or nostalgic remembrance processes intended to revive or to reposition old local brands such as *Dacia*, *Pepsi-Cola*, and *ROM* chocolate (Moraru 2013) or in using Ceausescu’s figure for commercial purposes.

Memory and material culture have been explored about a nostalgia that is not based on direct experience, whether it is one without lived experience or collective historical memory (Appadurai 1996). These forms of nostalgia may be related to the way objects of the past are perceived by people who did not experience the communist period or how the past is mediated through the commodification of socialist material culture (Bach 2002, 2014), where nostalgia functions as a form of cultural transmission. A subsequent local theme concerns the growing body of alternative memory practices developing both offline and online (Petrescu 2014) that come to challenge, deliberately or not, mainstream representations of the

past that have dominated the first two decades of Romanian post-communism.

Vignolles and Pichon (2014, 1) explored food consumption as a valuable vector for nostalgia with an instrumental approach, questioning how “consumers’ loss of confidence in modern food can be minimized if the brand, the product or the communication are granted a nostalgic touch”. Valuable input on identity attainment comes from food practices and family recipes that reinforce social bonding by references to memories of childhood and special moments. Field research helped identify three different types of food nostalgia grounded in emotional reactions: a positive (sweet), a negative (bitter), and an ambivalent (bittersweet) food nostalgia. The positive food nostalgia class prevailed with 51% of responses and was linked mainly to sweet food (sweets, biscuits, cakes, jam). Ambivalent food nostalgia came next with 33% of responses, and the negative food nostalgia counted 16% of responses, linked to products or brands that are “no longer available or produced in a different manner” (Vignolles and Pichon 2014, 12). The contribution of Romania scholars Mihăilescu and Iancu (2009) also brings attention to the dichotomy of past and present ailments: the authors’ historical reference on the post-socialist developments, marked by globalization and a “McDonaldization process”, provides a useful context for understanding the new trends towards the return to the “tastes of the past” rooted in local traditions.

Last but not least, the nostalgia impact on branding and its use in the process of creating a brand are topics to be found in media research and retro branding literature. For the first line of inquiry, Jon Kraszewski (2014) commented on how institutional branding strategies shape representations intended to interact with media trends within the audience, while nostalgia appears as a critical feature in the process. With an empirical study, Kathrin Natterer (2015) questioned types of films as triggers for specific types of nostalgia, a personal and/or historical one, while also carrying positive effects towards the media brand. Retro branding studies also reveal several trends relevant to our research. Cattaneo and Guerini (2010) explored the place of nostalgia in branding strategies, especially in an unstable economic climate, due to associations with past times of continuity and stability. Further exploratory studies by Cattaneo and Guerini (2012) refined the framing of nostalgia used in branding strategies, showing that nostalgia itself is not enough as a feature of brand communication and construction for a given product, while brands from the past, associated with a prior historical period, are more likely to appear in consumer

preferences. Hunt and Johns (2013) examined the relation of nostalgia to places rather than to historical moments, as sources for branding and advertising images, thus bringing the meaning of the term to its original definition as homesickness.

13.2 METHOD

The present study summarizes our previous findings on a typology of brands from the past (Bardan and Vasilendiuc 2019). It reviews them by using a different approach: our new analysis framework builds on the four vectors of brand tangibility developed by the brand expert Wally Olins (2008). Olins offered a material and qualitative perspective on the values of the brand, structuring the key branding concepts into a theoretical model that should be operationalized in any branding process. Successful branding is seen as the one that stands the test of time; therefore, consistency is decisive when considering the product, its environment, its communication, and behaviour.

A brief presentation of our previous work is needed, for a clearer integration with Olins' model. The typology of Romanian past brands was created using an interdisciplinary approach combining field research, content analysis, and visual ethnography, along with interviews and informal discussions with advertisers in order to systematize the success stories of transitioning brands that are still on the market, 30 years after the fall of Ceausescu's regime, in 1989. The typology consists of six classes: "Originals", "Adapted", "Romanian Tastes", "Archetypal Figures", "Nostalgic", and "Collectibles".

The "Originals" class includes well-known and proven food brands of the communist period, such as *ROM* chocolate, *Eugenia* biscuits, *Mentosan* drops, and *Murfatlar* and *Jidvei* wines, mainly due to the preservation of the visual identity and most of the packaging elements. The positive values associated with these brands also came from advertising campaigns, using national or widely recognized symbols. The class of the "Adapted" brands covers reinvented old products that preserved their name, but only parts of the visual features from old packaging. In this class figure, many well-known traditional brands (e.g. *Borsec* mineral water, *Silva* beer, and *Kandia* chocolate) managed to build up and keep a significant market share over time. Their modernized appearance was tailored as a means to convey the traditional, old, original, and genuine taste that has been preserved for years. The "Romanian Tastes" [*Gusturi românești*] brand is an

umbrella for a wide range of traditional products belonging to a chain of Belgian supermarkets. The company's 400 items portfolio is mainly designed for urban consumers who appreciate the quality of traditional Romanian products. The "Archetypal figures" is represented by recently created local brands, such as *Bunica* [Grandmother], *Coana Chiva* [Lady Chiva], and *Matache Macelaru* [Matache The Butcher]. Their communication campaigns are linked to culinary traditions, using associations with strong images, such as rustic, peasant, traditional, authentic, Romanian, or "homelike". The "Nostalgic" class introduces a new category of explicitly nostalgia-driven brand, named *Gostat* (a range of processed meat products). The *Gostat* marketing campaign used some of the most powerful symbols of the communist era: pioneers, factory workers, young activists, for example. The "Collectibles" class contains authentic old food products that have been stored for more than 30 years in private collections as remnants of the communist era.

Our analysis framework is inspired by Wally Olins' four vectors of brand tangibility (Olins 2008), a theoretical model defining how a brand can manifest itself: the product, the environment, the communication, and the behaviour. Brands dominated by the product are those that attract the consumers by the services offered or the product itself.

The marketed product, its quality, and action are decisive factors in the buying; however, in the long run, a good advertisement and a satisfactory experience will prevail. The environmental vector refers to the environment in which brands are deployed in and the way buyers or customers perceive this physical space. Brands dominated by communication are the ones based on customer interaction through advertising, usually in the case of consumer goods, with specific and significant associated benefits. When the dominant vector is the behaviour, the interaction between the company/or employees and the customers is the one that prevails. In our analysis, we will translate this value as the consumer experience based on the manifestation of taste. In the case of most brands, there is a combination of vectors, each having a lower or higher weight within them, thus having dominant vectors and secondary vectors.

Adapted to the needs of the present study, Olin's vectors are translated as follows:

1. The product, as the alimentary object that may rely on the original, on a reinvented or a new recipe.

2. The physical environment in which the brand manifests itself is related to the physical appearance of the object through the visual identity and the visual configuration of the packaging.
3. Communication, focusing on advertising, in the way the brand is communicated to its audience via references to the past or the present.
4. Behaviour, as the relation of the brand with the outside world is examined through a consumer experience that is based mainly on the past or on the present.

In Table 13.1, the main classes and features of our mapping approach are presented, followed by an in-depth description of each vector of brand tangibility. All the observations and the examples summoned here come from our previous article, aiming for a synthetic lecture from a different angle. Therefore, fewer references will be used. Our mapping analysis may shed new light on the strong brands from the communist past, adding to the arguments that explain their longevity.

13.3 ANALYSIS OF RESULTS AND DISCUSSION

13.3.1 *Product and Recipe*

Starting with the 1990s, most brands went through a continuous innovation and renovation process. Original recipes were improved, highlighting all valuable qualities of the products, amongst which the taste prevailed. Documentation showed also that the initial recipes have been substantially modified over time, representing only a “shadow” of the products marketed during the communist era, when although the quality of the products decreased considerably, their symbolic values were established, in most cases, by the fact that, in a period of harsh alimentary shortage, they could still be found on the market. A typical case is represented by the “Original” class that comprises brands recalling the old authentic recipes by preserving to a greater or lesser extent the flavour and shape of food products. Preservation of the old-time taste created a halo effect among consumers, who, influenced by the positive memory associated with a lived or induced experience, were immersed in a food nostalgia (e.g. *ROM* chocolate, *Eugenia* biscuits, *Murfatlar* and *Jidvei* wines).

Similarly, brands from the “Adapted”, “Romanian tastes”, and “Archetypal figures” classes largely sold, with some success, the new or reinvented items, with strong similarity to the products from the past (e.g.

Table 13.1 The communist-era brands—features and classes

<i>The four vectors of brand tangibility</i>		<i>Originals</i>	<i>Adapted</i>	<i>Romanian tastes</i>	<i>Archetypal figures</i>	<i>Nostalgic tastes</i>	<i>Collectables</i>
Product/recipe	Old						
	Reinvented	X	X	X		X	X
Identity/packaging	New				X		
	Old						X
Communication/ advertising	Modernized	X					
	New		X	X	X	X	
	Reference to the past	X	X	X	X	X	X
	Reference to the present	X	X	X	X		
Consumer experience/taste	Based on the past	X	X	X	X	X	X
	Based on the present	X	X	X	X	X	

Source: Authors' archive

Borsec mineral water, *Silva* beer, *Kandia* chocolate). This feature was used in a marketing positioning building upon values such as “made in Romania” or “genuine and trustworthy Romanian products”, in a context of the increasingly saturated market of imported food products. However, the most significant example includes the “Nostalgic” class by association with induced memories of the products in this class. During the 1980s, processed meats became a synonym of a time of scarcity, as these products could be found in limited-time offers and were available in small quantities. The *Gostat* range of processed meat stands as a nostalgia-driven brand, calling for these rare products sold in specific shops. The brands in the “Collectables” class are the genuine products of the 1980s, while they are also a first-hand image of the past, but for reasons of perishability, they can no longer be consumed. These products are food artefacts kept in personal collections or publicly exposed during various thematic events related to the past.

13.3.2 *Identity and Packaging*

During the three decades since the collapse of communism, Romanian food products have gone through a renewal process not only in terms of basic recipes but also in packaging. The visual image of communist products integrated the design style of the period, but also reflected the austerity of the 1980s, especially in production (printing, materials, and finishing). Their reinvention mostly embedded a dramatic alteration of the original image. Nostalgia has been packaged in a much more attractive design for consumers. These “nostalgic” products targeted the market with a strong brand identity and with a packaging that supposed to communicate to consumers concisely this symbolic message through specific elements: logo, colour, size, shape, and texture of the package.

Various solutions were adopted: the use of national graphic ornaments was a simple and accessible way to highlight the emotional-symbolic local quality of the products. Many of the “Romanian Tastes” and “Archetypal figures” brands made use of folklore-related decorative elements depicting celestial phenomena such as lightning (represented by zigzag), star, and the sun (e.g. “mentosan” [sweet tablets], “drajeuri” [bonbons], “pufarine” [multi-coloured sweet puffed cereals], or “pufuleți” [puffed corn]). Also, in order to reproduce the original colours and shapes, the “Originals”, “Nostalgic”, and some “Adapted” brands resorted to various national symbols widely used in the packaging of similar products from the

communist era. An exemplary case is *Rom* chocolate that kept its shape and label on the package using the triband design (such as tricolour), thus standing as an original Romanian product with an authentic taste. The use of traditional packaging materials, such as glass and cardboard, is another eye-catching and functional strategy widely used for recreating old-time packaging. Although during communism products were usually placed in cheap and easily damaged packages, the use of glass and cardboard becomes a sign of eco-friendly brand management, in the actual context of plastic ban in packaging (KPMG 2019).

13.3.3 *Communication and Advertising*

Almost a decade had to pass, after the fall of communist regimes, for Romanian companies to begin to use nostalgia in advertising. Reserves for using references from the past were linked to possible adverse consumer reactions (Moraru 2013); as such, strategies for a nostalgia marketing emerged in a context where the market became oversaturated with foreign cheap (and sometimes bad) goods. The return to the traditional (not necessarily communist) brands was regarded as a preservation of the country's national identity and heritage through original food products. Local food brands have begun to look for ways to connect with consumers on a much deeper emotional level. The use of nostalgic marketing stimulated the comeback of products from the communist era, which were once considered second-hand products. Repositioning them on the domestic market by appealing to strong memories was a powerful way of awakening elicited emotions in nostalgic consumers, thus building mainly on "a historical nostalgia". Many advertising campaigns have promised a return to happy memories and long-forgotten tastes. One of them was the 2016 Bloom Communication campaign for *Gostat* range of processed meat, which has capitalized on the images of pioneers, factory workers, and young activists. *Gostat* represents a "Nostalgic" class of brands which turned to the communist era to become memorable, by embodying direct references to the communist past both through images and slogans. The message "Taste a slice of nostalgia", drawing on the background of flag-waving communist workers, was a key feature of the campaign trying to revive the positive memories and even an idealized image of a still controversial and strongly negatively perceived period. The advertising campaigns for the food brands in the "Originals", "Adapted", "Romanian Tastes", or "Archetypal figures" classes cover a broad range of messages that refer both to the past

and to the present, the latter targeted at new generations of consumers. For brand communication that recalled the past, different framings were used, appealing to values such as “tradition”, “original”, or “authentic” (Dumitrescu 2015).

13.3.4 *Consumer Experience and Taste*

Over time, international topics on food security, sustainable agriculture, and quality of local products have also emerged in the local market (Ionescu 2016). Consumer experience appears here as the emerging trends of local food products that relate to safety standards, to a consumer-friendly packaging, and to an emotional connection aiming to convert consumer behaviours into supporting consumer experiences. Many local Romanian brands challenged well-established foreign brands mainly by references to the past, by association with a positive food nostalgia, and through emotional brand attachment. For all classes except the “Collectible” one, communication and brand strategies relied on associations with the past as a safe and familiar food experience, providing a sense of comfort associated with happy memories. Many brands analysed in the above table restored social ties with long-lasting preferences for sweet foods (e.g. *ROM* chocolate, *Eugenia* biscuits, *Mentosan* drops). Recent studies tailored consumers’ preferences for comfort food or some innately preferred tastes and feelings of social isolation (Troisi et al. 2015). In this regard, many of the Romanian brand campaigns focused on social gatherings visually recreating social events at which these products were consumed. It should, however, be mentioned that food brands equally exploited consumers’ experience based on the “personal nostalgia”. The generic images of rustic, peasant, traditional, authentic, or Romanian tastes triggered the homesickness effect connected with immediate proximity (friends, family, and familiar places) where food was regarded as a means of preserving personal memories.

13.4 CONCLUSIONS AND FUTURE WORK

As we developed a theoretical model inspired by Wally Olins’ four vectors of brand tangibility, we intended to understand better the nostalgia branding strategies of communist-era products that we previously organized in six classes: “Originals”, “Updated”, “Romanian Tastes”, “Archetypal Figures”, “Nostalgic”, and “Collectibles”.

Our study also recalled previous local research on brands (Moraru 2013), adding to their findings the trend that nostalgia marketing has gained popularity in Romania via the way post-communist brands rely on tradition or memories as framing devices. Moreover, classes discussed here appear related both to personal and to historical nostalgia (Stern 1992). Therefore, a future direction for our work would be to empirically assess which type of nostalgia prevails in which class of our typology. The “Nostalgia” class, with the *Gostat* meat product range, also appears as an exemplary case that may challenge the findings of Cattaneo and Guerini (2012) related to the performance of brands from the past associated to a historical period, yet also further analysis should be carried out. Popularity and longevity of communist-era brands also find arguments in the commodification of socialist material culture (Bach 2014), by adapting branding strategies from older generations of consumers to new ones. The traditional and authentic dimensions of the transitional communist brands can also be linked to the use of nostalgia in brand communication, considered by Vignolles and Pichon (2014) as a trigger for confidence in the brand.

The main limitation of this work is our approach to Olins’ model on typologies of brands from the past; not on a body of specific brands. This limitation may well be addressed in future empirical research, focusing on the brands of each class.

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Experiencing the Spectacle of Fine Dining. New Forms of Festivity in Sofia, Bulgaria and Diversion of Public Space

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It was in 2017 that I accidentally came across an advertisement for Sofia White Diners. From the name and the description, I immediately recognized that it was the same event a colleague of mine enthusiastically talked to me about seven to eight years ago on a flight from Paris to Sofia, namely, a flash mob, “an elegant urban picnic,” which emerged in late 1980 in Paris, France, and gained much more popularity and visibility with the development of web 2.0 and the intensification of interactivity in culture.¹

This text will take as a starting point the analysis of festivals organized around fine eating in public space. The observed practices take place on the blurring line between public and private events and are often presented in response to capitalism and even staged as its critique. Responsible for their happening is the role of new media that shape the experience and imagination of those events. And in this context, of particular interest to me are how public space is appropriated through the various practices of

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eating or sharing food and how the concepts of sustainability, ethics and morality intertwine around the topic of food. At the same time, the selected research phenomena can be classified as new cultural practice gravitating around the preparation and consumption of food in the urban area of Sofia. By “new cultural practices” I mean those activities where the boundary between producer and consumer, between labour and pleasure, blurs. However, central to that definition is emerging interactivity within the experience of the events, which are no longer possible without the participation of users and their creativity in the happening.

My analysis is mainly based on my field observations during the first two editions of Sofia White Dinners² in 2017 and 2018 and StrEAT Fest³ 2017 and 2018. We are witnessing an expansion of food festivals all over Bulgaria in the last ten years. The vast majority of those are organized around a specific product sometimes tied to local identity, sometimes to national pride and as such are claiming part of the intangible cultural heritage (Ivanova 2018). In the case of Sofia White Dinners, central are the aesthetics of food consumption in public space and the co-participation of organizers and consumers. In the second case, the StrEAT festival, the main focus is obviously on street food, with participants being mostly from high-range restaurants or offering exotic cuisine. I deliberately chose two festivals which are different from that traditional form of food festivals. They both⁴ targeted a very small group of consumers, the upper-middle class in Sofia. Unlike most festivals, these are not organized around a particular type of food as the focus here is more on a specific style of eating and consumption itself, identified as a means of social distinction.

Another important line of distinction from traditional food festivals is their own refusal to position themselves within a local cultural tradition at the expense of explicitly claiming themselves as belonging to global processes.

The forms of public gathering and celebration differ at least at first glance from the definitions of events and celebrations offered in academic literature (Raj and Musgrave 2009). For Raj and Musgrave, a celebration is a purposeful and organized event that seeks to strengthen a community, to recall its past and to enrich culture and knowledge. Participants not only do not know each other but may not have many points of contact outside the events and thus instead build an extreme imaginary community. What is of abrupt difference with the studied phenomena is that the construction of a community is not of any interest. What is sought is some kind of mechanic solidarity and temporal conviviality.

In fact, and to be honest, the two events I researched do not share many points of contact and overlap slightly. The audiences they aim for are different; their way of happening is different; their aesthetics are different. What unites them is the special attitude they maintain with the public space and with the city and the aesthetics of food and its consumption, which enables a form of social distinction through food consumption. But what was the most striking point for me was their relation to the urban space. Both StrEAT and Sofia White Dinners are held in visually and physically separate parts of the public space, participants are separated by enclosures and pay for their participation in the events, but are transformed into co-participants. Another important feature that they share is the need for a co-participation of clients through actively engaging, creating and documenting what is happening. Both events owe a lot of their imagination to the act of sharing the celebration online, in real time.

Despite these seemingly few touching points, I will use these two cases to construct through them an ideal type (as in the tradition of Max Weber) of celebrations organized around fine eating in public space. The shift in the distribution of professional and amateur roles in the cultural field will also be analysed deeply.

14.1 FOOD, A STORY ABOUT CONVIVIALITY, MANUAL LABOUR AND MORALITY

Food, insists Barthes (1961), is a situation, and in its essence, it creates the sociality by simultaneously setting its rules and practices of communication and behaviour. It is because of this ability of food, as a practice of preparation and consumption, to participate in emphasizing the social connection and to make visible the rules, norms and ideological attitudes, that I am interested in the various forms of celebration organized around the preparation, consumption and sharing of food.

Food has always been something that is involved in organizing social structure and hierarchy in society through beliefs related to the consumption process Veblen and Banta (2009). Lately, food consumption in modern societies has become increasingly central to the changing field of anthropology. Food preparation has become increasingly valued in contemporary culture because it overcomes the moral challenge instituted by consumption (Miller 2001), as it involves the possibility of manual labour (Solier 2013). This new culture of consumption and food preparation also

consists of the necessity to develop a broader and more in-depth knowledge of food and culinary techniques (Solier 2013). This blurs the boundaries between professionals and amateurs. In these cases, food and the act of eating are repositioned as sophisticated practices. And it is through the aesthetics of the process that it becomes a means of social distinction (Bourdieu 1979). As if, in modern culture, conversations oscillating around food are overlapping conversations about art. It occurs to me that it is precisely the culture of sophisticated food consumption and aesthetics of aliments that summons in the best way what is typical for the studied phenomena.⁵

The cases make visible the emergence of a new urban category of citizens, the *foodies*, the food amateurs who not only consume a specific product but rather mobilize an arsenal of specialized knowledge of culinary topics (Solier 2013) and as such uses it as a form of social distinction. The magazine *Harpers and Queen* defined in 1982 the foodie through the idea of “cuisine poseur.” The “foodie” is “a person who uses sophisticated culinary consumption as a means of social distinction” (Solier 2013).

Due to the increased degree of suspicion addressed at consumption in the construction of modern identity, the production seems to be better positioned in the categories of morality, and this often supports the emergence of new forms of creativity and production, precisely around food. With the change of place and the importance of production, actual production loses its significance in the world of labour. At the same time, people gradually begin to produce in their spare time, often for pleasure or rest, a phenomenon that Gelber (1999) called productive leisure.

An important line of distinction is the separation of this new form of production from the more traditional hobby, which again is oriented towards a pleasant and fulfilling pastime. But while the hobby is something that is usually done for pleasure, according to Stebbins (1979), what separates the amateur is the very object of the activity being carried out. For amateurs, there is a simultaneous opportunity for professional realization in the same field (Stebbins 1979), while this is not possible when applied to a hobby. It is precisely this distinction that hides the different uses of the studied forms of celebration, for some these are professional events, for others amateur. Initially, productive leisure was imposed on the working class by middle-class reformers as a means of moral education but was gradually redesigned as a form of selective rest among the middle class itself (Stebbins 2007 cited by Solier 2013). That shift is of structural importance for the studied phenomena, because participants engage in

communication around food, mobilize their arsenal of specialized knowledge and a lot of manual labour is required. They are also integrating some of the critiques addressed to the new capitalism specifics of food, namely, a critique of abundance, of the industrial process, of anonymization related to the cultivation, preparation and sharing of food (Boltanski and Chiapello 1999).

14.2 THE SPECTACLE OF FINE DINING

Sofia White Dinners is an event that takes its inspiration from a “chic urban picnic” invented in France 30 years ago that has become a trademark. The original name, *Dîner en blanc*,⁶ is due to the requirement that all participants be dressed in white only, to use white chairs and tablecloths, as well as white dishes. Food should be served in porcelain or glassware, eaten with a knife and fork, and participants usually provide a three-course menu with separate dishes. Plastic, paper napkins and eating with bare hands expressly prohibited during the original event but are tolerated in the Bulgarian case if biodegradable. The same goes for alcoholic drinks, with only wine and champagne being accepted in the original French event, while in the Bulgarian edition vodka and beer were also approved. The concept is gradually expanding to other cities, countries and even continents, acquiring a trademark. However, the impression is that, although it was celebrating its 30th anniversary in 2018, *Dîner en blanc* has been recognizable and noticeable mainly in the last dozen years, and this is related to the changing use of the internet and the emergence of social media.

Unlike other food festivals, Sofia White Dinners relies mainly on participants. Everything else, the decoration of the tables, the provision of utensils and equipment, the preparation and serving of the food itself, the creation of a complete appearance are all impossible without the active participation and production by the participants who follow the organizers’ preliminary instructions quite carefully. Contemporary cultural practices rely heavily on interaction, and therefore, the figure of the participant is of crucial meaning. That participant not only consumes but also co-participates while consuming and thus makes the whole event possible. Those new figures of interacting participants could easily be classified under the definition of prosumers (Toffler 1984). To this, Isabelle de Solier (2013) also adds the importance of how amateurs construct an identity through something they regard as a moral approach to material

culture, as opposed to simply being consumers. Producing and prosuming are seen as something serious and something like labour. It is of crucial importance to set the relationship between amateurs and professionals because one of the studied phenomena relies heavily on this blurring of expertise and the emergence of new categories of cultural actors. Production is central to their professional approach to material culture as well as knowledge.

Advertised as a chic flash mob, albeit with limited access, the original *Dîner en blanc* had clearly defined rules and schedules. Firstly, it is relatively difficult to access; limiting access is key to building its identity. Occasional attendance is possible only by invitation from one of the participants. The participation at one event does not guarantee the right to attend the next. To be able to join yearly, one must become a member of an exclusive club. And to reach membership, one needs a formal recommendation and presentation on a waiting list. All that adds a highly ritualized process of participation, disregarding the basic rules and not attending an event automatically leads to exclusion.

Events are highly ritualized. The waving of the table napkins heralds the beginning of the dinner. Nobody is supposed to start eating before. The provision of tables and chairs is the responsibility of the participants, who must comply with the specific requirements of size, colour and placement. One of the key ideas is to engage in communication with strangers in a long, continuous and symmetrical series of tables. In the middle of the evening, a dance floor is lit (in the Bulgarian version this marks the end of the event). At the same time, the effort that the participants put into the preparation for the event is noticeable. People pull up tables and bring decorations, flowers as well as putting a great deal of effort into preparing both food and decorations.

All this makes the event highly instagramable and very well designed from a marketing point of view. Selfies are one of the key aspects of the evening as they are prepared and encouraged. Every element of the evening is carefully documented and uploaded online. The organizers are also actively reminding participants to take a selfie. During the third edition bloggers and influencers were also actively endorsed.

The location itself is kept secret until the last moment, and it is the surprise of the site that is part of the atmosphere. At the same time, the choice of location is crucial and very much insists on the publicity of the space. Initially, according to the legend, *Dîner en blanc* was a form of

taking over urban space without permission; it is still valid, but the authorities have become more tolerant.

Several vital points distinguish Sofia White Diners from the accepted code of conduct of the original event. First of all, the registration is public and easily accessible and accordingly lacks the original idea of a secret society. Secondly, the logistics themselves are slightly different. The first event took place in the Military Academy Park and the second in the garden in front of the Old Bath of Sofia and the current museum of the city, behind the Banya Bashi Mosque. During the first event, depending on the form of registration, there were several accommodation options. Depending on the price category, rented equipment (tables and chairs) could be used, or one could choose to bring his/her own. For the second edition, all tables and chairs (which later appeared to be insufficient) were provided by the organizers for a fee. During the second edition, we went to the event much later than planned because we were waiting for non-attendees outside the time limit. Upon arrival at the venue, it turned out that there were no pre-booked and rented tables for all participants, and in particular for us. Our table neighbours improvised their decoration and arranged it on chairs, and a little later we made a second organization on a card box. What makes an impression is the careful arrangement of the food, the wearing of the decoration and the special tablecloths. In fact, the foreign (French) example (of the original) was used extremely much as a role model and as an (unreached) standard. It formally criticized participants' complaints about the obstacles they faced. It was also given as an example of strict adherence to the rules without taking into account the different organizational skills. The narrative for a sophisticated urban picnic gives way to that of environmental friendliness, and thus, the use of biodegradable plastic begins to be allowed between the first and the second. This retreat, as well as the fact that they are not part of global events, also makes possible the emergence of two major sponsors, which are beer and vodka companies.

What stayed true to the French original were the event's visual identification codes, which made it extraordinarily photogenic. To be more exact, the rule that all clothing and equipment is white (tablecloths, chairs, napkins and tableware, utensils). The food should be well prepared and finely served. There was also the creative use of lighting.

The original French event and its official franchises rely on the allocation of seats predetermined by the organizers, for the photogenic effect, but also following the principle of socialization with strangers. In contrast,

the Sofia version relies on a much more liberal distribution in space. In the first year, everyone placed their table where they decided, while in the second year, it was announced that there would be a map of the tables, but it was not respected. Thus, there was no preliminary scheme of the tables and participants rarely came into contact with strangers, but instead sat on separate tables and found it challenging to engage in communication. This is exacerbated by the inclusion of a competition element, like a prize for best-arranged table.

However, this leads to a change in socialization, and most of the participants remain within their friend circles.

The imagination around White Diners is built around the social mixing and diversion of uses of public space through aesthetic means and consumption of food or, as the official site says, through food and elegance. The Bulgarian organizers insisted that they will bring new life to unexpected public spaces or those with bad reputations. In this way, the discourse slips to the left narratives of open space, but the diversion itself files under a right-wing aesthetic. White Diners promote the elegance, the momentum, the pleasure of the experience and the momentary communication in a cult, and this is how an ad hoc community is built around this communication. The participant user becomes part of the show, and you enjoy it at the same time.

14.3 STREET FOOD AS A PRIVATE-PUBLIC EXPERIENCE

And here comes the time to mention the second festival of my scientific interest, namely, Sofia StrEAT festival, an event organized by a leading culinary magazine—Bacchus. StrEAT, unlike other paid festivals that take place, happens in the urban area by restricting access to it. The choice of venues is the key, and this is very clear from the selection of the location festival. In this case, the choice of venue, which legitimizes the selected sites as offering street food, is crucial, with the festival for the second year taking place on the territory of the renovated Women's Market. The StrEAT Fest is a result of cooperation between the Sofia municipality and Bacchus and is an evident attempt towards the dreamed gentrification of the neighbourhood (Venkov 2017). Until now there were two editions of the event. The main point that impresses is that it creates clear segregation on a traditionally public space with open and democratic access.

The organization of StrEAT is fundamentally different and comes closer to the more traditional forms of food festivals as far as the

interaction between professionals and amateurs. The food on offer is prepared mainly by chefs from rather high-end restaurants, and it is their interpretation on the subject of street food. It is of utmost importance how space is imagined as proposed by Henri Lefebvre (2000) for *espace conçu, perçu, vécu*, which was also revised by E. Soja (1989), in his three-fold conceptualization of space: *first space*, *second space*, and *third space*. The festival forms a new, temporary experience and conceptualization of space. This is very clearly visible, on the first level, through the festival map itself, which represents the space of the festival as disconnected from the rest of the marketplace, and also sets expectations for fun through the different infographics that are embedded. Of course, this further enhances the spatial segregation imposed through the fences and the entrance ticket. The festival is clearly standing out from street life, on which its image is based. There are no participants usually living or working in the area around the market. All are coming from different places in the city or even from the online space (no physical shops or restaurants). A key point in creating the atmosphere and guaranteeing the “authenticity” of the experience is the inclusion of a street orchestra.

Enclosures separate the space of the festival; access is mediated through tickets at around 2.5 euro per person. During the first edition, all cash transactions were made through the mediation of a unique market currency. That was dropped for the second edition. All this leads to the creation of an alternative time-space experience. As it is held on weekends and stores are open on its territory, access to the small shops is still possible, but it is provided from another entrance. The space in which the event takes place is not large, but above all, its separation contradicts the very idea of street food.

Both events (Sofia White Dinners and StrEAT fest) create a private experience of public space, privatize it through fences, access fees and even in the case of the first edition of StrEAT fest, the special festival currency, even though the public aspect of the space is central to the imagination of events.

What is most impressive about this case is the transfer and aestheticization of a food model from one context to another, the street food passes through the vector of exquisite cuisine to gain the necessary prestige. This “new” model is alien to the place and the people who visit it and who most likely do not have points of contact with the participants. Paradoxically, they are the ones who provide the necessary authenticity/legitimacy of the experience.

14.4 NEW FORMS OF FESTIVITY AND THE CONSTRUCTION OF IMAGINED COMMUNITY

Both festivals are organized around the idea of a dream life. To achieve their goals, they function as heterotopias (Foucault 2004) and spatial segregation is the main feature of their inscription in the urban context. In this way, they create a dreamy separate time-space associated with their festivities and use the city as a décor of the spectacle they give rise to. This is their other main characteristic: transforming the participant into a spectator and spectacle at the same time. And the fact that the participant becomes part of a spectacle brings pride. In this way, the transformation into a spectacle and the paradoxically related sense of privilege accompany the segregation, which turns out to be a reliable marketing strategy. These forms of celebration are also based on the commercialization of social relation, the experience and the momentum hidden behind the idea of celebration, thus questioning the holiday itself.

These forms of celebration make visible the changes in professional roles and relationships in a different way, blurring the boundaries between amateurs and professionals because they rely on the complementary skills, access to knowledge and practices of the two groups. They also emphasize the importance of a new group of experts in the field of food, the so-called foodies (to designate the sophisticated consumer), who use food not as a traditional identity, but as a method of social distinction, making even more fluid the meaning of nutrition in contemporary culture. Diet is not merely an identity-building element but also implies the notion of class and social stratification.

Food is increasingly becoming an element of differentiation and the construction of prestige. This also changes the attitude towards the food itself, because it elevates a particular style of eating to a cult, and the overall consumption protocol becomes aesthetic. In these examples, eating is valued as a fine practice and not as consumption of specific foods. Moreover, in these two cases, the insistence on the importance of giving an aesthetic dimension to the public use undermines many other aspects of food ethics, including those specifically related to modern food practices (such as transparency, honesty, sustainability, etc.).

And when I mention the way in which prestige and consumption are linked, I cannot fail to note that in the investigated cases, these are practices that are of central importance to designing them as “imported,” global, exotic. This can be seen through explicit references to better

models (Sofia White Dinners) or through subtler hints such as playing with the English name, including exotic cuisines (StrEAT fest).

The disparate, new-media-dominated nature of the two events, the importance of the incorporation mentioned above into a global culture over some undermining of the local, but using it as legitimation and an instrument of authentication, leads to the formation of new communities. These new communities might be thought of as a variant of imagined communities in the Benedict Anderson tradition (Anderson 2006) but placed in a new media-dominated world: instant, aestheticizing details that appeal to the pleasure of dispersed formations.

This creates a clash between the critique of capitalism through the language of access to space and the hint of the need for the authenticity of the experience. There is a creation of community and communication and transformation of participants not only into co-producers but also into a show, which is part of a greater whole. In this way, we see the unravelling of the culture of new capitalism in new forms of celebration. However, their relationship with the new capitalism is much more complex and integrating the critique of capitalism into it adds to the added value of the experience.

NOTES

1. The paper presents the results from the cooperative research project “New Celebrations: Communities, Identities, Policies in the 21st Century,” funded by the NSF—Ministry of Science and Education, Bulgaria. An earlier and longer version in Bulgarian was published under Velislava Petrova. 2018. “Spektakülüt na iziskanoto khranene zaedno. Novi formi na praznichnost v Sofiya i preobrüshthane na upotrebite na publicното prostranstvo.” *Balgarska etnologiya* 4.
2. Sofia White Dinners is an event organized by a company that specialized in events management following the now famous example of Diner en blanc. And although Diner en blanc is constantly being used as part of the marketing strategy, the Sofia event is not part of the global network of participating cities.
3. StrEAT festival is organized by a culinary magazine Bacchus. It is taking place for the second consecutive year within the renovated part of the Women’s Market in Sofia.
4. These two forms of celebration organized around food are positioned in the more general frame of celebrations structured around consuming food together in public spaces. My initial idea was to cover also some more events,

namely, Disco soup, organized by Slow Food Bulgaria and the events surrounding Jamie's Food Revolution. But they were dropped for various reasons, Disco Soup did not take place in 2018, and the events surrounding Jamie's Food Revolution seemed to have lost their festival character and shifted to non-public spaces.

5. A similar mechanism was described by Pierre Bourdieu when analyzing the affirmation of photography as a middle-class art form and practice (Bourdieu 1965).
6. According to a story circulating in the media, the invention of the whole concept is the work of Francois Pasquier. He decided to invite a group of friends, but because of the limited space of his Paris apartment, he brought the gathering outdoor. In order to facilitate the organization, he suggested to the invitees to dress in white so that they can easily recognize and find each other by offering, as a meeting place, the Bologna Forest. There is also an artistic critique of the White diners, *Ce soir en noir* in Vancouver generated by other critical views of the event, which seems pretentious and segregative.

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Figurative Reconstruction in Food and Healthcare Advertising

Dan Podaru

This chapter is the outcome of three significant moments that have caught my eye, and that refers to observing a set of substantial structural changes in the way in which the young people that I often interact with perceive and understand certain visual, symbolic and cultural messages.

Before actually presenting the mentioned circumstances, I consider it useful to start by making a theoretical approach of the social role played by semiotics and by defining the signifier and the signified, two terms that I will be referring to in this chapter.

Fiske explains Saussure's theory: "The signifier is the sign's image as we perceive it—the marks on the paper or the sounds in the air; the signified is the mental concept to which it refers. This mental concept is broadly common to all members of the same culture who share the same language" (Fiske 1990, 44).

To illustrate differences, between the two, I asked students what their perception of a "cow" was. Some of them answered that to them a cow was *mauve*, since they associated it to the Milka's brand cow.

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Such a finding reminds me of something that Gilles Lipovetsky said about neo-consumers, hyper-consumption and hyper-publicity: “The power of the images that contribute to the imposition of great brands does not instate a tyrannical order, but a universe of global star brands: the era of hyper-consumerism coincides with the triumph worldwide of brands as fashion” (Lipovetsky 2007, 82).

Under pressure of the consumer society, the popular culture, the advertising campaigns promoted globally, the fashion, the globalization and the power of the media, the idyllic image of the traditional nature with cows grazing on our grandfathers’ grassland has been replaced by the value of the cultural icon of the “Milka cow”.

While discussing a Diesel commercial that metaphorically signified exotic and colourful parrots that replace the well-known pigeons in Venice’s San Marco Square, to mark the beginning of global warming and implicitly the change in the traditional ecosystems, students interpreted the natural colourful plumes of the Ara parrots (purple or green-winged) from a contemporary perspective, as an indication of an LGBT-focused sort of campaign. Therefore, they distorted substantially the original meaning of the message behind the Diesel ad that came out in 2007. The fact that this commercial, built around the Global Warming Ready slogan, relies on the narrative idea of a social campaign that focuses on global warming, young people who are exposed to the LGBT campaigns, and the new ideologies promoted in our society through the movements and campaigns of the gender minority activities or cinematography, would instead decode the actual sense of the message in the wrong way and reconstruct it depending on their own culture. Under such circumstances, we encounter the theoretical idea of the aberrant decoding launched by Umberto Eco, who said that at some point artists generate work for a specific target audience that is contemporary with them and that the audience understands the values and the message that artists want to send across. Umberto Eco identifies several moments in which the aberrant decoding may intervene, and one of those moments occurs whenever a subsequent generation understands the same work differently, according to its own culture, habits and values (Eco apud Miller 2003, 4–5).

An essential distinction has to be made, more specifically the one between the existence of cultural changes and the different perception of certain symbolic elements within a relatively short time frame, of a little bit over ten years. Such circumstance alters structurally Eco’s idea referring to the next generations (NB: to Eco, future generations are born after long

periods), and the barriers of time are broken down at a much higher speed in the context of technological developments and fashion. We could say that the next generations are born at the same time with us and that—quite soon—given the information puzzle and the gap separating the beliefs, messages will be understood differently quite shortly after they are conceived.

In both the circumstances described above, the new generations that are regularly exposed to advertising and media campaigns, doubled by real knowledge of natural elements, are generating a new form of understanding of the surrounding universe and its symbolic constituents. Up to a certain point, an evolution of the meanings and comparisons to the real world is natural too. Yet the speed with which advertising and media campaigns change the cultural perceptions or the beliefs of individuals seem to generate concern through alteration of naturality and artificial resignification.

We are now in a situation described by Lotman, who said: “It is well known the fact that one text could cover several functions. More specifically, the creator of the text designs it in the light of certain functional and typological categories, while the receiver perceives it in a totally different light. The text is reinterpreted within a particular framework” (Lotman 1974, 95).

The third situation that I am going to present refers to an exercise proposed by one of the visiting teachers whom students have recently met. The guest came up with pictures of three energy drinks available on the Romanian market and asked students what values define those images or to what values they are associated. In the case of *Burn* product, it was associated with energy; *Red Bull* was associated with the well-known slogan “Red Bull gives you wings” and to freedom, while *Hell* was associated with strength. So these discussions brought the idea that young people enjoy those drinks since they are inspired by and give in to the suggestions of the packaging imagery and the diverse symbolic values delivered through the advertising campaigns to which these products are associated (this is how each product is positioned distinctly).

One single student brought up the issue of the composition of these products and the fact that—since they were not made out of natural ingredients—they could be harmful.

The conclusion I have reached is that drinking these energy drinks and eating other food no longer involves consumption based on knowing and picking ingredients, their taste or their qualities in full awareness. We may

speak of the existence of consumption that is notably cultural, triggered by the products' symbolism that is transmitted through the advertising campaigns and the media that govern modern society.

This new type of consumption, which is no longer based exclusively on the utility value, is based on the impact of advertising campaigns, on fashion or on the social standing of the consumer, especially the social status obtained by using a particular product.

If we made an analogy, we would find ourselves in the circumstance described by Thorstein Veblen in his "Theory of the Leisure Class", according to which ostentatious consumption of goods was meant to cover two functions: publicly displaying economic power and attaining or maintaining a given social status (Veblen 2009, 150).

Consequently, the lifestyle, holidays' destinations, clothes, food and technological equipment that we use or consume in a world which is dominated by and obsessed with image and brands have an eminently symbolic value, thereby becoming a permanent way of expressing one's identity in relationship to the people around.

A particular case of a product that is promoted on the Romanian food market even today is the *ROM* chocolate bar, one of the few food products that have survived since 1964. This chocolate brand was first launched in 1964 and continued to be available on the Romanian market until 1989. That entire period brings bleak memories to anyone who lived through it because people were much affected by poverty and famine. The sad realities of those days were determined by the communist regime and the dictatorship of Nicolae Ceaușescu. Everybody remembers how people used to live back then: the rationed electricity available to home consumers, rationed food (sold based on ration cards), rationed fuel, censored speech and the brutal punishments administered by *Securitate* (the communist Intelligence Services) to all whose who would hold an anti-government or anti-communist opinion.

Despite the sad realities that Romania had seen up until 1989, some campaigns were started in 2005 to relaunch the *ROM* chocolate bar by invoking exclusively and repeatedly some symbols of the communist period. These were, for example, reminders of the personality of Nicolae Ceaușescu, the black Russian-made Volga cars that only the Communist Party and the Intelligence Service would use, the cheap dull undifferentiated clothes, the limited freedom of expression whatever it was (men were not permitted to have long hair and beards since these were considered features of a bourgeois identity that the communist ideology rejected;

actually, extravagant clothes were also much frowned upon). It is against this background that *ROM* advertisers wanted to bring back a certain nostalgia for the communist past; the *ROM* campaigns were actually successful in spite of their connection to some sad moments in Romania's history.

I intend to present an opinion in a concise and structured manner about this particular campaign, which is not matching the structural elements that define a successful advertising campaign traditionally. First, any successful campaign relies—as a central background element—on a traditionally mythological icon (a certain character, a tale, a circumstance, an anecdote) that bears a positive symbolic connotation and meaning, since the advertising campaign bears a mythological significance by creating a subtle connection to a glorious past.

The story behind the *ROM* campaign features no positive elements and reference and instead zooms in on dramatic details, involving fear and anxiety, which several generations experienced. If we are running such promotional campaigns, even by attempting to ridicule such periods (without minding ethics, morals and deontology), then could we also run a campaign by recalling the traumas and tragedies that happened in the Nazi extermination camps?

My explanation of the success that such a campaign has had, while I still consider it a cynical promotion of a dramatic past, is two-pronged. The first component may be represented by the target audience that is quite nostalgic about the past. My discussions with people of those generations revealed that the nostalgic are not too numerous, and most people rejected the idea of such a campaign while considering that any association to that bleak past is indecent and unnatural.

The second component could cover the young audience and their indifferent reaction to a past they do not know of while being amused by the apparent humour of certain dramatic events that happened. More specifically, the campaigns are unaware of building mythologies *à la Roland Barthes* of the communist past, and of the values and elements that form this past in the eyes and minds of the young audience. And in this way the campaigns also distort a historical reality whose actual gravity, when filtered through parody and derision, may be regarded superficially and misunderstood.

Myths, whenever construed through the eyes of Barthes, just as he explained them himself, refer to central elements of the present, to values in which the contemporary society believes at a given time. Barthes makes

a clear distinction between how he sees “mythologies” and the traditional sense of “myth” (Barthes 2015, 15–16).

Romanian consumers have several real peculiarities that are proven by the very perception and positioning of the campaign under scrutiny.

A peculiar detail of the *ROM* chocolate campaign is the packaging whose type and combination of colours imitate Romania’s national flag, while also being briefly associated to the US flag as part of a campaign that ran in 2010 under the slogan *Noul Rom—Să construim America aici* (“The New Rom—Let’s build America right here”), which hints to replacing Romania’s flag with the US one.

Back in the communist days, the packaging was almost the same. Yet, it has to be understood and clarified that this chocolate was launched at a time that was strongly dominated by the communist dictatorship when the state was free to decide that national signs could be used under any circumstance of its own choice. One additional argument along this line is that there was no market competition in this country.

Yet using a packaging that hints to Romania’s national flag is immoral since today’s nationwide connotations and emotional implications of how such packaging could be perceived are almost suggesting an instance of unfair competition with other producers of similar products.

Moving on to how symbolic meanings may be created and suggested, I would like to bring up not some packaging identical to the national flag, but a much subtler and more in-depth analysis by Marcel Danesi, who in his “Messages, Signs and Meanings” explains that in the case of the perfume named *Drakkar Noir* the name and appearance of the bottle (i.e. opaque black) suggest darkness, something unknown and mysterious (black) and makes him think of Dracula (Danesi 2004, 269–270).

Hence, the deduction that the symbolic, connotational and subtle associations built in certain advertising campaigns, and not only, may influence or generate perceptions that may be favourable to those who run a campaign or sell a particular product brand. Therefore, this is a tautological association of packaging that features identical colours, laid out in the same order as the national flag but makes no subtle suggestions. Still, it strongly reinforces the idea of a national flag in which a food product is wrapped up.

Some old-time fans of the classical *ROM* chocolate have confirmed—just like the campaign promoted—that the chocolate relies on the traditional recipe and that it tastes as it used to back in 1964. None of the few dozens of consumers interviewed confirmed that they had ever seen the

ingredients of the original recipe that was used during the communist period. Even fewer people saw the list of ingredients of the product, which is available on the market right now. Consequently, this advertising campaign creates a false collective conscience that refers to taste and ingredients and focuses on respecting tradition for lack of objective validation by the consumers who are consuming whatever the advertisement sells them.

To understand how important the reasoning is, we need to bear in mind that “the power of the visual sign is what makes the logo so much an intrinsic feature today of product recognizability” (Beasley and Danesi 2002, 61).

A potential conclusion could be that the relevant institutions should be supervising more closely this particular industry and should make it so that promoting/producing campaigns that use national signs and symbols as a form of intertextuality should be avoided.

The fact that we live in a consumer society that is running full steam ahead powered by advertising and competition is quite evident. These are the leading causes that trigger attempts to mislead consumers. There are many food and non-food products whose real origin is quite adroitly concealed. Would somebody instead buy a product named “sweet product based on UHT vegetable fats” or the same product called “non-dairy cream”?

The symbolism of names and packages of food products is placed on the edge of ethics in many other countless situations. We can now find soymilk, coconut milk, rice milk and almond milk in almost every store. These are vegetable drinks that replace natural milk. Still, the connotations and symbolism of the maternal milk, which is the basic food of infants, cannot be replaced not even by the keenest advocates of veganism and vegetarianism. What could be more successful, the product referred to as “milk”, which by being traditionally associated with the breakfast of kids establishes not only the frequency but also the ritual of consumption? Or the “soy beverage” which is not milk. So we should culturally attach to it the meaning of a product which is used in a particular moment in the daily diet routine?

The reasons above prove very briefly the reason why the large producers of vegetable drinks are unable to give up on the symbolic association of their promoted beverages to maternal milk, and they do not even wish to give up on this association. At the same time, these products are camouflaged behind the identity of the competing food products which they want to replace.

Generally speaking, we may consider that morality is not the main feature of advertising. The advertising campaigns, the symbolic associations, all references to mythological characters or emotions, or family, have no other purpose than cynically attract consumers and generate proceeds as high as possible by selling the promoted products.

For that matter, it is interesting to resort to history and to remember what Roland Barthes wrote in 1957. His essay on “Soap-powders and Detergents” revealed how a conclusion was reached during a 1954 World Congress that products of this sort were not a hazard to the human skin; therefore, they are not dangerous to children either (Barthes 2015, 45).

Nowadays, we are aware that most detergents may have adverse effects on human skin and health by generating allergies and dermatitis. Industry associations recommend strictly that people having sensitive skin and children should only use some detergents that contain organic ingredients.

Just like the genuine fake news phenomenon whose appearance we are witnessing today, the food industry is also presenting us with oxymoronic products such as “margarine with butter” or “margarine tasting like butter” or “sweetener containing honey (ingredients: 45% honey made of linden flowers and 55% glucose and fructose syrup)”, sold in a package that features a honeycomb, such product being just one of those fake foods that are being sold on the Romanian market.

Based on the above, we may consider that broader and more visible campaigns are necessary (despite rather shy attempts) to raise the awareness and educate the public about how useful it is to be able to identify the ingredients of food and non-food products. All consumers should be aware that a product has to be purchased for its intrinsic qualities and its benefits to health, not for its attractive packaging and false promises of the promotional campaigns.

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Culinary Discourse in Contemporary South Korea

Cătălina Stanciu

16.1 INTRODUCTION

Unlike the case of China and Japan, Korea had no particular image that could contribute to the general discourse of the nineteenth century and early twentieth century on what the United States and Europe referred to as the Orient. The gradually increasing interest in Korea and its people in the United States and Europe represents a part of a history of globalization which began with the advent in the early twentieth century of colonial modernity in the Korean peninsula (Hughes 2011). This process together with its effects has been visible with the division of the Korean peninsula in 1945, the following US military occupation of South Korea (1945–1948), and the passing of the US Immigration and Nationality Act of 1965, which played an important role in South Korean immigration in the 1970s. More recently, the status of South Korea as one of the largest economies in the world, accompanied by the outflow of the education migrants and the inflow of migrant workers, has increased South Korea's

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global visibility. At the same time, South Korean cultural products have started to gain great success overseas. The cultural market of artistic movies belonging to directors such as Kim Ki-Duk or Park Chan-Wook has been expanded, in a more commercial manner, with an increasing number of television dramas and pop music, which has become known as the Korean wave (*Hallyu*). Terms such as K-pop or K-drama have started to gain popularity all over the world. Recently, this international success of South Korean products has developed other concepts such as K-beauty and K-food, making other industries bloom and thus bringing more worldwide recognition to the Korean peninsula.

I suggest that these key elements contribute to how, supported by its international success, South Korea has attempted to recreate its identity and consolidate its image since it lacked one for such a long time. The image that South Korea has recently engaged in creating—for Korean people themselves, as well as for the rest of the world—is that of a firm Korean spirit (*hanbukgeokingeot*). With a historical need for expressing their uniqueness despite its relation with China, then facing a similar urgency for protecting their cultural heritage, identity, and traditional values during their confrontations with Japan and the United States, the Korean peninsula is nowadays involved in providing key elements that could effectively create an image of contemporary Korea. This image can be viewed as a map consisting of essential features that best describe and guide non-Koreans through the Korean culture and spirit. The firm character of such an unwritten national agenda—that of illustrating the essential features of what actually makes Korea distinctive among other East Asian cultures—comes from including traditional values within the contemporary aspects of Korea and Korean culture. All innovations and newly achieved labels of Korea, such as K-beauty and K-food, sprout from the solid roots of Korean tradition, values, and esthetic norms, which are emerging into a harmonious coexistence of old and new or traditional and modern.

Identifying K-food as one of the key elements for illustrating contemporary Korea, I will interpret *budaejjigae*, which was an army base stew, originally made of SPAM ham which was mostly smuggled from US military bases by famished Korean citizens, as a South Korean dish. The consumption of *budaejjigae* currently represents a culinary discourse for coping with traumatic memories of war while at the same time defining contemporary Korea.

16.2 FOOD CULTURE IN THE KOREAN PENINSULA

16.2.1 *Traditional Korean Dining Table*

Traditionally, a Korean dining table is arranged in a particular manner and contains a few necessary components of daily foods. In the Korean gastronomic literature, there are also ideal depictions of a traditional Korean dining table that have been recorded since pre-modern times. For example, *SinijeonseoEumsikbangmun* represents one of the most valuable gastronomy sources¹ dating from the Jeoson Dynasty (1392–1910), which also contains a detailed description of the table setting, “Bansangsikdo” (“Illustration of Table Setting”). An ideal depiction of a traditional Korean table is offered by Cho Sin (1454–1528) in his work entitled *SomunSwoerok* (*Insignificant Records by Somun*). The number of side dishes traditionally classifies Korean meals. The vegetables that constitute a high proportion of the side dishes can be eaten raw or cooked, seasoned or unseasoned. Vegetables are either those cultivated in fields, such as chilli peppers or squash, or the various wild plants and herbs growing in the mountains.

Along with Korean preference for plants handed down by the ancient inhabitants of the Korean peninsula, the proliferation of vegetables in Korean cuisine can be explained through the environment of the peninsula; through the harsh conditions in past times of famine or war as well as through the vegetarian diets imposed by Buddhism. Along with the wide variety of side dishes, a common element of a Korean table is *kimchi*, a type of food made by salting and seasoning vegetables such as Chinese cabbage and radish. Preserving and fermentation methods of such foods have developed through time, adding chilli powder, onion, or fermented seafood. However, apart from the side dishes that represent an essential element of a Korean table, rice is the basic component of any meal.² In pre-modern times, for those of lower status groups, rice was not accessible and thus replaced by barley or millet. The condiments and seasonings available in diverse choices according to the type of food they combine are also essential in Korean cuisine. The most basic condiments are soy sauce, soybean paste, and red chilli pepper paste, together with fermented seafood and black pepper. Meat or fish dishes, as well as soups and stews, are another culinary highlight of Korean tables. While meat dishes are usually served in smaller portions, soups and stews are considered to be complementing the main meal.

After remarking the variety of side dishes brought all together at the same time on the table, the assortment of colors is what impresses most.³ A correctly set table is one where colors are not random; instead, they have a double function. One is the chromatic and esthetic value that it offers to the table, and the other one is the curative function the foods of certain colors are believed to be endowed. Colors and paying attention to the harmony between them have always been one of the fundamental esthetic values in any aspect of traditional Korean culture. Inspired by nature, Korean esthetics promotes five main colors which can be seen merged in paintings, in the architecture and decorative elements of Buddhist temples, in the traditional multicolored traditional clothes (*saeكدongjeogori*), as well as in setting the dining table. One of the most well-known traditional Korean dishes, *bibimbap* (mixed rice with meat and assorted vegetables) present all these five colors in one single bowl: green (east), white (west), red (south), black (north), and yellow (center), and they each represent the five cardinal positions as well as the seasons, days of the week, and the cosmos (Yun 2015). Omnipresent in the Eastern philosophy, as well as in the Korean culture and lifestyle, the five elements, together with the principles of *yin* and *yang*, all played an important part in the creation of the universe, which should be respected and praised in people's lifestyle—their culinary customs, dress code, architecture, design, and so on. Heaven and earth, respectively, represent the yang and yin, and interaction and relation between the two results in dynamic energies represented by the five elements of wood (Thursday), metal (Friday), fire (Tuesday), water (Wednesday), and earth (Saturday) (Yun 2015). Respecting all these principles get a visible representation in the Korean harmoniously colorful ingredients such as the green of scallions, the white of egg white, the red of the red chilli, the black of manna lichen and shiitake mushrooms, and the yellow of yolk, which together symbolize the five cardinal positions of east, west, south, north, and center. What is also unique to Korean culture is the mixing of all these ingredients before eating the dish, which suggests the harmony of the whole universe (Yun 2015). Moreover, the universe also contains the human being, which associates the human body with the five colors, along with each of the main organs. Based on this belief, the importance of the chromatic and esthetic culinary principle, as well as food therapy in Korean traditional medicine naturally developed.⁴

16.2.2 *K-Food: Gaining Worldwide Popularity*

The Korean Culture and Information Service (KOCIS), under the Ministry of Culture, Sports and Tourism, was inaugurated in 1971—though until then known under different names and placed under different agencies. Since then it has launched various projects such as *The Korean Culture Series*, or the monthly magazine *Korea*, which present international readers “with insights into and a basic understanding of the dynamic and diverse aspects of contemporary Korean culture.”⁵ Korea Foundation features various cultural programs and workshops which are aimed at offering insight into Korean culture, as well as publishing *Koreana*, a magazine on Korean culture and arts.

When advertising Korean food, sources such as *The Korean Culture Series* refer mainly to the traditional values and principles of Korean gastronomy and culinary culture. Descriptions of the Korean food describe attributes such as “well-being,” “unique flavor and depth,” “carefully and patiently cooked,” “outstanding nutritional and health benefits” (Yun 2015, 12), and so on. Moreover, the cooperation between nature and human beings and the health benefits of vegetables are emphasized by the process of fermentation and its valuable foods and reinforced by the presentation of *kimjang* (preparation of *kimchi*) as registered with UNESCO’s list of Humanity’s Intangible Cultural Heritage at the end of 2013 (Yun 2015).

Apart from the multitude of TV cooking shows or food blogs providing information on Korean food and Korean culinary tradition,⁶ and the growing worldwide interest in Korean culinary culture, KOCIS informs of the international recognition of the Korean food. Also, an increasing number of fine dining restaurants around the world and various Korean chefs cooking all around the world are listed by Yun Jin-ah in her volume on K-food. *Hansik* is being presented as one of the most important key elements when referring to Korean food. Not only is *hansik* well known to Koreans, chefs or food bloggers, but it has also become a healthy alternative for students around the world. In New Jersey, the Lindbergh Elementary School provides its students with Korean dishes once per week.⁷

Another vital project took place in 2009 when Korea’s Rural Development Administration and the Agricultural Research Service (ARS) of the US Department of Agriculture (USDA) launched a series of clinical research trials as part of a three-year collaboration with one of the

USDA-ARS research agencies Beltsville Human Nutrition Research Center and John Hopkins Hospital on “the effect of a Korean diet on human health.”

The research compared the recommended dietary allowances in typical Korean and American dietary profiles (Yun 2015). This research project was considered significant as it examined the implementation of dietary guidelines for Americans based on the intake of Korean food. The research concluded that by adopting a Korean diet, American participants demonstrated a reduction in the critical risk factors in lifestyle diseases, namely, cholesterol and blood sugar. Compared to consuming a typical American diet, there was more than five times the reduction of cholesterol with Korean food consumption, which was 1.5 times above the recommendation of the USDA. The analysis suggested that the effects were due to sufficient consumption of plants through the variety of vegetables and *kimchi*, fermented products such as *kimchi*, *jeotgal* (salted seafood), and sauces, grains, and legumes, as well as the low-fat method of food preparation. It was noteworthy that the average Korean diet approximates the healthy diet outlined in the USDA guidelines (Yun 2015, 53–54).

Nevertheless, when the focus of the culinary discourse on cultural identity is placed instead on the modern and urban aspects, then Koreans advertise their food culture through the impressive elements of *pojamacha* (street food) or *chimaek* (pairing of fried chicken and beer) or *budaejjigae*.⁸

16.3 GASTRONOMY IN SOUTH KOREA: COPING WITH TRAUMATIC MEMORIES OF WAR AND REAFFIRMING CULTURAL IDENTITY

16.3.1 *A Brief History of SPAM*

Either in the Korean peninsula or in the United States, where it originates from, SPAM cannot be recalled as symbols of abundance and peaceful times. In the United States, SPAM can be traceable from the period of the Great Depression. Moreover, it used to be the tin canned food that helped the US Army stay alive during combat. Brought by the US Army soldiers in the Korean peninsula, SPAM was introduced during the post-war circumstances of harsh famine endured by Korean citizens.

While tracing the history of SPAM as an invention of hard times, it would be useful to start by understanding the name of the subject of our

inquiry, especially that its appearance—that of a four uppercase letters word—can create confusion. By the looks of it, it could be an acronym, a backronym, or a shortened form of something. At the same time, as Ku (2013) also suggests, it inevitably reminds of “spam,” the word written with lowercase letters and which refers to the unsolicited e-mails in one’s inbox. Even though the trademark SPAM is written with uppercase letters, in order to distinguish from spam written with lowercase letters, an analogy between the undesirable inbox missives unhealthiness (even the unsavoriness) of processed ham is involuntarily made. Probably with the same association in their mind, actors and hosts of American TV shows have been ridiculing SPAM in various ways.⁹

With a history of being criticized initially and ridiculed in the United States, for its odd taste and for being “the furthest thing from refined” (Gold 2008), for Koreans who remained on the Korean peninsula after the war, for those who immigrated to the United States, or for either of these two categories’ descendants, SPAM and SPAM dishes are endowed with multiple connotations. Also, these categories are supplemented by that of Westerners for whom SPAM is popularly regarded as “dubious,” “artificial,” and more suitable as a punch line to jokes than an edible object (Ku 2013). It is stigmatized foods due to their lack of nutritive value or associated with a “lack of cultural sophistication and refinement due to its mass appeal and affordability” (Ku 2013). At the same time, for others who do not question their diet and food intake much, a slice of SPAM on the top of a slice of bread, or fried and mixed with rice, is an unquestionable, convenient dish. On the other hand, there are others who used to celebrate SPAM as “a definitive piece of Americana that resonate with society’s populist inclinations” (Ku 2013, 200).

In terms of convenience, a category impossible to be excluded is that of consumers for whom SPAM is the only affordable alternative to natural, unprocessed ham. A similar portrait of SPAM consumers is those for whom this highly processed piece of canned ham was one of the few—if not the only—possibility to feed themselves. These are the parents of Korean American people who melancholically return to their gustative childhood memories—as naturally, all the children in the entire world do—of their mothers’ savory dishes. They would recall the images of their homes, with the portrait of their mothers preparing dishes that would contain such foods, the dining tables filled with them, then their experience with the taste. Such foods became for them the taste of childhood, and the taste of childhood is always good. Ku adds his own childhood

experience along with the personal stories of others who share a similar background. For example, he refers to the cases of Sylvie Kim and Sunyoung Lee, who when referring to SPAM present a dissociated perspective. There is the reference to this food as an “inherited” memory of shame, poverty, and war (Ku 2013), or a “gamut of associations from trashiness to status of kitsch” (Ku 2013, 192) doubled by the personal memory of “It tastes good” (Ku 2013, 192).

A Korean American herself, Grace M. Cho listened to the oral testimonies of the Korean War survivors living in the United States who used to survive based on the “leftovers” found outside of the US Army bases. With voices filled with humiliation, resentment, and gratitude all at once, as Cho says, Koreans would complain that “Americans have the best food and throw it away, and then Koreans buy that garbage” (Cho 2014). Based on the personal stories that she heard from the war survivors, Cho describes the dish as a symbol of starvation, a “disgusting” “mélange” of food “scraps,” based on which Koreans have gradually built something new. Her memories about the stew have multiple connotations. First, she related to the stew as to inherited trauma, and second, she realized that it also spoke of her identity as a Korean American.

Unlike Cho, her mother—a direct victim of the Korean War—had a completely different experience with the stew. First, she would not “encourage” her daughter’s awareness of the stew, she would not cook it for her, and whenever necessary, never refer to it by its name. As she was avoiding calling it *budaejjigae* and instead referring to it as “ramyeon (instant noodles) with hotdogs,” for Cho’s mother preparing and even naming the stew was an evident traumatic trigger. The war had for her a highly traumatic impact that she could not overcome. By avoiding preparing the food, the mother was also trying to escape her own trauma produced by the war memories. Cho’s first experience with the taste of the stew was when she visited Uijeongbu, a city where there is a whole food district based on *budaejjigae*. Another aspect regarding the consumption of SPAM mentioned by her, which can also support her mother’s reluctance regarding the stew, is its illegality. There was a time when American products were not legally available to Koreans, which led to a black market for American foods developed between the “post exchange” (PX), or retail stores for American soldiers and Korean society that surrounded them. A *Time* article from 9 November 1959 implied that “Korean girls” who had access to the PX through their associations with American soldiers—husbands, boyfriends, or johns—were mostly responsible for this

illegal trade. A few years later, *Time* reported on the crackdown on black market trading under the Pak Chung-Hee dictatorship, when Spam smuggling became an offence punishable by death (Cho 2014).

Nevertheless, for many of the Korean Americans' parents who were born in the Korean peninsula where they faced the traumatic experience of the Korean War, smuggled SPAM and the improvised dishes made with it represented a survival means.

16.3.2 *SPAM Consumption in Contemporary South Korea*

As many Korean Americans have ended up interpreting *budaejjigae* as a symbol of their mixed identity, for Koreans too, the stew became a dish cooked with mixed feelings. They had innovatively started to add more ingredients to the stew: a spicy broth, ramen noodles, Korean vegetables and seasoning, more diverse vegetables (such as shiitake mushrooms, cabbage, onion, scallion), tofu, *kimchi*, dried anchovies/dried kelp or chicken/beef stock, sliced rice cakes, ground pork, or American cheese. All these new ingredients have been completing and successfully transforming the stew into a savory dish. Thus, *budaejjigae*, which was once made of leftovers, has gradually become a delicious and popular Korean dish. Though its health benefits are still doubtful since it contains the highly processed meat from the SPAM cans, the newly added ingredients have transformed the food and its connotations. It transformed loss into a gain of reaffirmation, and the feeling of humiliation into a chance for the Korean people taking pride in their reinforced national identity.

Investing in the estheticizing of a dish that used to be an actual perversion of Korean cuisine, made of leftovers, symbolizing humiliation, and at any time becoming a trigger of the traumatic memory of war and poverty, Koreans overcame the impulse of forgetting the traumatic memory related to the war and instead have incorporated it within Korean culture. Moreover, the stew based on its main ingredient—SPAM ham—has become a chance for national identity reaffirmation.

Its name, “army base stew,” explicitly speaks of its origins: a product of a foreign army and the collision between Korea and the United States. In the few discussions on the gastronomical narratives about food and the Korean War, most of the discourses see *budaejjigae* and its permanence in Korean cuisine as an element that embodies the entwined natures of Korean and American identities with American Empire today (Woodcock 2018, 135). At the same time, Koreans' predilection for enjoying SPAM

and even perceiving it as a luxury product instead of getting rid of it as it can quickly activate memories of loss, famine, and shame is also understood through the way Koreans revolve themselves to the United States. In his book, Ku explains that SPAM remains a luxury product because it is an American product and thus the stew continues to be perceived as a status symbol for middle-class consumers in contemporary South Korea (Ku 2013, 194). In her essay “Eating Military Base Stew,” Grace M. Cho also explains the continuous reproduction through the ongoing interdependence of South Korea and the US military bases. Moreover, the stew is often discussed as an Asian/Korean American dish (Woodcock 2018; Ku 2013).

However, this chapter interprets the consumption and promotion of *budaejjigae* as a culinary discourse for overcoming a collective trauma. In the studies of psychological trauma, a process of recovery mandatorily includes the stage of integration of the traumatic memories (Herman 2015). The intention of avoiding and escaping traumatic memories is profoundly misleading, suggest all the specialists in psychological trauma. Consuming *budaejjigae* in the contemporary society of South Korea is a form of testimony. The transformation of the Korean people’s trauma story is embodied through the bowl of *budaejjigae*. For the Korean elderly, *budaejjigae* represents a possible trigger for their past traumatic memories. On the other hand, for the young generation who did not witness the atrocities of the war and did not experience the extreme poverty suffered by their parents and grandparents, the stew can still have the taste—even unconsciously—of the transgenerational trauma they inherited from their family members. By consuming this food, they actively embrace their traumatic past and endow it with a new meaning.

Either voluntarily or involuntarily unquestionable, “ridiculous to think” (Lewis 2000, 83) since it is perceived like a non-real, artificial food, or impossible to think as it also represents a trigger for a traumatic memory, Koreans rethink SPAM. This possibility of rethinking a product able to trigger at any time personal or transgenerational memories of war and extreme poverty is accomplished through the process of transforming it into a product that could embrace the old suffering and redefine it with the pride of a blessed survivor—and not that of an incurable victim. This transgression implies a redefinition of identity, an integration—and not forced oblivion—of a historical aspect and its recuperation into contemporary *Koreaness*. Solidly based on their ancient tradition of respecting the chromatic and esthetic values of food, encouraged by the modern

gastronomical tendencies toward fusion cuisine, and driven by a fervent desire to overcome their war trauma and at the same time establish a generous—visual and savory—image of Korea, Koreans invented a successful recipe. Based on SPAM ham and keeping its old name, *budaejjigae*, Koreans turned a survival, junk stew into an embellished dish. In order to do so, they appealed to their traditional culinary culture: harmony of colors and textures. It is evident that adding many other ingredients of diverse colors to the most exquisitely looking stews totally reminds of the importance of the harmony of colors in Korean culinary culture. At the same time, a harmony of different textures is realized through one's indulging into tasting the softness of the tofu pieces, the stickiness of the *tteok* (rice cakes), the softness of the American cheese, the tenderness of the SPAM ham, and the semi-crunchiness of the Vienna sausages—all from the same pot. The traditional interest into the curative values of food was touched upon only in that of adding various healthy ingredients such as soybean sprouts, tofu, onion, “real” meat, mushrooms, or even seafood, which improved the taste and added nutritive value to the dish. Nevertheless, some recipes also added *ramyeon* (instant noodles), American melting cheese, and an abundance of Vienna sausages, all sprinkled with pinches of MSG for potentiating the taste at maximum. Thus similarly, this pot of fusion ingredients has also integrated the traumatic memories of its origins in the Korean peninsula in a way that successfully speaks of the Korean cultural identity.

16.4 CONCLUSION

Budaejjigae is a dish of multivalent meanings. However, it is a testimony dish, and its consumption and successful promotion as a valued Korean dish have been interpreted as a culinary discourse in terms of overcoming one of the most deeply rooted traumas in the consciousness of the Korean people. It is a dish that testifies not only for the relation between South Korea and the United States but especially for South Korea's chance for reaffirming its national identity based on integrating its traumatic memories of war and its national challenge of furnishing a solid image of the contemporary Korean unique culture. Along with its history of multiple traumatic events, Korea has felt the need to protect its traditional values and to prove, redefine, and reaffirm the uniqueness and the very essence of its culture. Embracing its traumatic memories of war, South Korea blends in various cultural ingredients into a mold that reshapes its own

identity—which, like the stew itself, is based on the principle of harmony and fusion.

NOTES

1. Although the original could not be discovered, the book is a handwritten copy on official Japanese government paper dating from the period between 1911 and 1923.
2. The importance of rice can also be understood at a linguistic level, since the word *bap* means both rice and food or a full meal.
3. The harmony among colors is accompanied by a harmony of flavors, textures, and temperatures, which is another characteristic aspect of the Korean culinary culture.
4. Green is associated with the eyes; white color foods are said to be good for those with respiratory difficulties. Red color stands for the heart. Black color is associated with the kidneys, reproductive system, and ears. Yellow color is linked to the spleen and stomach (Yun 2015, 79–80).
5. The presentation available on the cover of the *Korean Culture Series*.
6. There are many such TV cooking shows or documentaries that have presented Korean gastronomy in various ways. One of the most remarkable, especially due to its famous host, is the culinary travel show *Anthony Bourdain: Parts Unknown*. In the episode on Korea from April 2015, Bourdain described the *budaejjigae* as “the vintage army stew” proving that necessity is “the mother of all deliciousness” (Woodcock 2018, 137).
7. Information appeared in *Korea Daily*, on the 16th of June (Yun 2015).
8. In Yun’s volume too, she only mentioned this dish as being “dense in flavor” and avoided explaining its origins by simply translating it as a “sausage stew with ham” (Yun 2015, 63).
9. It is also known that in 1996, Walt Disney Pictures, together with Jim Henson Productions, released a film named *Muppet Treasure Island*, which featured a character named Sp’am. The character appears to be a savage priest in a tribe of wild boars that worship Miss Piggy (Ku 2013).

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Romanian Online Media and Public Health Threats: Case Study Incidents with Food in Urban Areas

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International studies have shown the importance of the media in communicating incidents involving outdated, infected products or products with a quality/composition that could endanger public health (Nucci et al. 2009; Kanihan and Gale 2003; Hoban and Kendall 1993). How media communicate about the risks of consuming infected products can influence the decision of buying individual items (Ward et al. 2012), can influence the perception of risks (Belendez and Martin 2008; McCluskey and Swinnen 2011; Raupp 2014), can modify the level of trusting the food system (Henderson et al. 2014) and can generate economic crises at the level of some food suppliers (Leiss and Nicol 2006). At first, articles talked about the need to transmit to the population information regarding only the risks of consuming certain products (Rutsaert 2013). Lately, the media have been dealing with the need to communicate, at the same time, about food risks and benefits (Verbeke et al. 2008). The transformations which

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the media have encountered due to developing new communication technologies also generated new forms of communication that took over the topic of food risks and food crises. Social media rapidly drew the specialists' attention through how they communicated about food incidents and through transforming the public from a receiver of information into participant to creating and transmitting information (Rutsaert 2013). In this context of multiplication of media forms and of possible consequences generated by communicating risks to the population, researchers tried to identify how journalists (from the traditional, online and social media) build articles about food alerts.

Some studies analyzed how food crises were presented in the "classical media," more precisely in the TV shows or newspapers (Gauthier 2011; Nucci et al. 2009; Boyd et al. 2009; Hsu 2008; Petts et al. 2001). Recent studies analyzed how social media took over the role of informing the public about food crises (Mou and Lin 2014; Casey et al. 2011; Chunara et al. 2012). Some studies emphasized the particularities of informing via social media, compared to how the traditional media (TV and newspapers) presented food crises (Shan et al. 2014). What is interesting is the fact that both traditional and social media mostly use as information sources government officials and agencies (Shan et al. 2014; Li and Izard 2003; Powell and Self 2003). On the other hand, the studies made up to the present moment have shown that the articles about food crises cover especially four topics: scientific topic (information about health), a political topic, economic topic, and social topic (Shan et al. 2014, 921). At the same time, some studies highlight the wrong way in which the media transmit information on food alerts/incidents focusing more on describing the consequences of consumption rather than informing about the categories of population that are the most exposed to risks (Mou and Lin 2014; Nucci et al. 2009; IFIC 2005; Patrick et al. 2007; Salaun and Flores 2001).

Food safety is a subject that is little tackled by Romanian journalists. Politicians are, as well, less interested in discussing public debates about the issue of food safety, although public health and the problems of the health system are sometimes a topic in their speeches. The situation seems to be similar in the academic environment as well. Few studies analyze the health issues generated by the consumption of some ingredients that are inconsistent with quality standards or that are infected with *Listeria Monocytogenes*, *Salmonella*, *E. Coli* and others.

However, we are facing a paradox. At the institutional level, we can quickly identify an interest in preparing professionals for the food safety domain. In some universities, there are special study programs dedicated to food safety (at a masters level) organized by faculties with medical or food enginery and science profiles. There are also central and local authorities that play an essential role in ensuring food safety at a local and national level.

In Romania, there is an institution that coordinates all the activities focused on ensuring food safety by identifying unsafe products and eliminating these risks. It is the National Authority for Veterinary Health and Food Safety (NAVHFS). Being subordinate to The Romanian Government, this institution has, at its turn, representatives in every county. The National Authority for Veterinary Health and Food Safety is also the national coordinator of Rapid Alert System for Food and Feed (RASFF). Because Romania is a European Union member, the National Authority for Veterinary Health and Food Safety is connected to The Rapid Alert System for Food and Feed of The European Union and collaborated directly with the state members. Regardless of these aspects, we must mention as well that the National Authority for Veterinary Health and Food Safety is the institution which presents alerts about the food products that are infected or inconsistent with European standards and it also has the power to withdraw some products from the market. This is how the authority presents alerts (according to the procedures) and informs the public about the products withdrawn from the market and about the reason for withdrawal.

In order to inform the population, NAVHFS transmits the information to the journalists via press releases. The authority also collaborates directly with 61 accredited journalists (NAVHFS 2019). Moreover, the authority initiates campaigns for informing the public about certain subjects, and it also writes on its website the lists of products withdrawn from the Romanian market. Information about withdrawn products is written as well in the shops that sold the products that were infected and mentioned in the respective alerts. What I have just done is to briefly examine how this institution communicates in order to emphasize the institutional way of communication regarding public safety alerts.

Before emphasizing the way in which journalists communicate about this subject, I considered necessary to analyze the list of products withdrawn from the market by NAVHFS in 2019. Therefore, I tried to see the connection between alerts issued by the institution and the articles from

the online media. The analysis of the information posted on the authority website showed that, in 2019, NAVHFS issued 14 alerts of withdrawal of some products from the market. All the alerts were issued in the first half of the year (January–July). In the first three months of the year, most of the alerts were issued: January (2), February (8) and March (3). More than half of the alerts were about the withdrawal of some fish products (smoked salmon—8 alerts). Only two of the alerts were about chicken (1) or pork (1) products. Other alerts led to the withdrawal of some products with a high content of sulfites (biscuits, dry fruit mix, coconut flakes). The infection generated the alerts that led to the withdrawal of salmon products with *Listeria Monocytogenes* (8 alerts). The pork products and the dry fruit mix were withdrawn because of *Salmonella contamination* (2 alerts). The analysis of information regarding the hypermarkets where the infected products were identified showed that these products were sold by five companies: Auchan (4 alerts), Carrefour (3 alerts), Lidl (3 alerts), Kaufland (2 alerts) and Mega Image (2 alerts).

In this context, I decided to analyze how the online media present information about the food alerts issued by NAVHFS. In order to have an intricate image on how journalists (accredited or not by the institution) communicate the information regarding infected products and their consequences on our health, I decided to analyze only articles published in the online media in 2019.

17.1 METHODOLOGY

The purpose of this research was to analyze how the online media from Romania communicate the food incidents identified by The National Authority for Veterinary Health and Food Safety. Starting from the list of products that reappeared on the market in 2019 (available on the website NAVHFS), I evaluated how media communicate about alerts regarding the reappearance of some products infected with *Listeria Monocytogenes*, *Salmonella* or that contained unknown substances/unidentified objects. The methodology of the research included the content analysis of the articles identified in the online media. In order to identify the articles, I used keywords (food alert, *Listeria* infections alert, *Salmonella* infections alert, fruit mix alert, chicken with *Salmonella*, salmon infected with *Listeria*) which I introduced in Google Chrome. I selected all the articles that contained information regarding the alerts about products sold in the urban shops. I analyzed articles published in the period 1 January 2019–1 January 2020.

The analysis grid was structured in such a way as to allow the identification of some information regarding the media type (online newspapers, news websites, press agencies, etc.), period, information sources, type of communicated information, information regarding symptoms, information regarding health consequences, categories of risk population, presence/absence of recommendations regarding necessary measures for protecting the consumer and categories of people who communicate about alerts (experts, doctors, shop representatives or representatives of institutions which supervise product quality). The analyzed corpus was of 119 articles selected according to the mentioned criteria. The information was analyzed with the help of SPSS 22.2.

17.2 GENERAL DATA REGARDING ARTICLES THAT DESCRIBE FOOD ALERTS

The analysis of data regarding the articles that presented information about food alerts emphasized the fact that approximately two-thirds of the articles were published in online newspapers (69 articles—58 per cent). One-fifth of the articles were published on TV websites (21.8 per cent) and one fifth (20.2 per cent) was posted on the magazines, press agencies and radio websites. More articles were published in the first part of the year. Two-thirds of the articles were published in the first seven months (88 articles—74 per cent). A high number of articles were published in the following months: February (29 articles—24.3 per cent), March (25 articles—21 per cent) and July (23 articles—19.3 per cent). In the other months, the number of articles varied between 1 and 14 articles per month.

The articles contained information about food alerts in Romania (at a national, county and Capital level) and the European space. Most articles talked about the food alerts from Romania (95 articles—77.4 per cent), and one-fifth informed people about the alerts issued in The European Union (27 articles—22.6 per cent). Most of the articles that included information about the infected products warned people about the products identified in the national shop/hypermarket chains (84.2 per cent). Few articles talked about infected products discovered in the Capital (seven articles) or at the level of some counties (eight articles). The articles that informed the public about the food alerts issued by institutions from Europe talked about alerts valid for Spain (15 articles), Europe (8 articles), Bulgaria (3 articles) and France (1 article).

The articles included in the analyzed corpus contained, in two-thirds of the cases, information regarding the shops where infected food products (infected with *Listeria*, *Salmonella*, enterococci) were discovered or shops that sold products containing dangerous ingredients for the population (allergens, or high quantities of sulfites and potassium sorbate). What is interesting is the fact that approximately two-fifths of the articles did not contain information about the names of the shops that sold infected products (47 articles—39.4 per cent), and thus, journalists avoided the association between the information about the food alert and the name of the shop.

17.3 COVERAGE OF THE INFORMATION ABOUT THE SHOPS THAT SELL THE PRODUCTS FOR WHICH ALERTS WERE ISSUED

When we had information about the shops which sold infected products (72 articles), journalists mentioned the names of some big national hypermarket chains. Lidl hypermarket was mentioned in approximately two-fifths of the articles (27 articles, 37.5 per cent). Auchan (26.3 per cent), Carrefour (22.2 per cent) and Mega Image (20.8 per cent) are hypermarkets with names mentioned in the articles. Kaufland (eight articles), Selgros (two articles), Cora (one article) and KFC (three articles) were less mentioned over the articles that talked about products withdrawn from the market.

What is interesting is the fact that, although NAVHFS issued more alerts of withdrawal for products sold by Auchan (4 alerts—19 articles), the analysis of articles shows that journalists discussed more about the alerts issued for Lidl (3 alerts—27 de articles/37.5 per cent). The difference is also maintained in the case of alerts for the products from Carrefour (3 alerts—16 articles). The Mega Image and Kaufland hypermarkets received two alerts of withdrawal of products each. These alerts were differently talked about, the number of articles where alerts from Mega Image were presented (2 alerts—15 articles) was twice higher than the number of articles where alerts from Kaufland were presented (2 alerts—8 articles).

17.4 TYPES OF TACKLED INFECTED PRODUCTS

More than half of the alerts issued by NAVHFS were given for salmon (8 out of 14 alerts). Only two alerts were given for chicken or pork. However, the articles from the online media inform the population to a greater extent about the alerts given for the chicken, pork or beef products (59 articles out of 119). The 8 alerts issued for salmon were presented in 28 articles. As an average, 3.5 articles for the alerts about the *Listeria*-infected salmon were published.

17.5 WAYS OF PRESENTING THE INFECTED PRODUCTS

In order to identify how journalists from online media present the food alerts, I included in the analysis grid a few items about the type of information included in the structure of the articles. These included information about the consequences of consuming infected products, recommendations for the population, information about the way of refunding products, advice from specialists in public health, photos and information meant to allow the identification of the articles that were withdrawn from the market.

Out of the 119 articles, only 5 articles about food alerts were not accompanied by photos. In total, 127 photos and 7 video clips were used and associated with 114 articles. Most of the articles were accompanied by only one picture. However, there were 14 articles which had more images with the infected products. Two-thirds of photos associated with the articles (58 per cent) were images with the shops where products were sold (pictures with the building seen from outside) or images with food products in general (not with the products that had been withdrawn from the shops). Approximately half of the pictures included in the articles (53.4 per cent) had real images with the products included in alerts, images which allowed the public to identify the products withdrawn from the shops easily.

The analysis of how the real photos were associated with the alerts shows that only a fifth of the articles that presented alerts about the withdrawn infected pork products include pictures with the actual withdrawn products (19.4 per cent—7 articles out of 36 have pictures). The situation is different for the articles that describe the chicken, fish or fruit mix products. Two out of three articles (69 per cent) about the alerts regarding the infected fish (29 articles about *Listeria*-infected salmon and other fish)

were associated with real photos of the withdrawn products (20 pictures). Two out of three articles about the Salmonella-infected chicken (66.6 per cent) and almost three out of four articles about the Salmonella fruit mix (71.4 per cent) also had real pictures with the withdrawn products.

17.6 THE MEDIA COVERAGE OF THE CONSEQUENCES OF THE INFECTED PRODUCTS FOR PUBLIC HEALTH

In general, the NAVHFS statements about withdrawing products from the market have a standard structure. The statements contain information about the results of the laboratory analysis. They mention the presence of some infections with *Listeria* or *Salmonella* and they talk about products that are dangerous for the population due to what they contain. These statements also present the warranty term, content, the producing company and the shops that sell particular products. Moreover, they mention the consequences of consuming these products, categories of people exposed to risks and ways of refunding. Most of the times, a statement contains photos of the withdrawn items.

The articles from online media which present food alerts partially have the same structure as the press releases made by NAVHFS. More precisely, the articles include information about withdrawn products or name the shop chain that sells the products, but they do not present information about health consequences or measures which need to be taken by the population in order to protect their health or in order to be given a refund. Only 14.2 per cent (17 articles) contain information about the diseases caused by consuming such infected products. Almost half of the articles (47 per cent—56 articles) include information regarding the consequences of consuming spoiled/infected products. Approximately one-third of the articles mentions risk groups, that is, the people who are exposed to the highest risks if they consume *Listeria*- or *Salmonella*-infected products or products that contain many substances that cause allergies. Two out of five articles contain recommendations for the population, and almost half of the articles mention ways of refunding. An unusual situation was found in articles that talk about alerts at a European level or the level of some countries from Europe (Spain, Bulgaria, France and Great Britain). These articles also contain information regarding the areas where spoiled products were identified and information regarding the number of affected persons (even the number of deaths).

17.7 INFORMATION SOURCES USED BY JOURNALISTS

When they write about food alerts, Romanian journalists firstly use as information sources public institutions which establish and supervise food safety: The National Authority for Veterinary Health and Food Safety (NAVHFS) and the National Authority for Consumers' Protection (NACP). More than half of the journalists used as information sources the two abovementioned institutions (NAVHFS—45.4 per cent, NACP—6.7 per cent). The supermarkets that sell products withdrawn from the market are, as well, used as information sources by approximately two-fifths of the journalists (37.8 per cent). One-third of journalists prefer to inform themselves from detailed articles made by other journalists from the media (20 per cent) and the websites of the press agencies (11 per cent). Another source when we are talking about international alerts is The Ministry of External Affairs (10 per cent) and public institutions which deal with public health from the countries where food alerts had been issued (12 per cent). Very few articles have doctors (four articles) or other categories of experts (six articles) as sources.

In general, journalists prefer to quote the press releases issued by NAVHFS (33 articles—27.7 per cent). Moreover, very few journalists contact the representatives of these institutions (only five articles) in order to obtain additional information. One-fifth of the articles contain quotes from the statements issued by supermarkets (21.9 per cent), but no article quotes representatives of supermarkets. The articles about food alerts contain very few information gathered from interviews with experts and doctors (six articles). The representatives of the National Authority for Consumers' Protection (five articles) are also sources that are little used by journalists.

17.8 CONCLUSIONS

The analysis of how journalists from the online media present the alerts for dangerous products emphasized the fact that most of the articles are limited to presenting only the information included by NAVHFS in the press releases. Few journalists included in their articles recommendations or statements made by experts. When they included recommendations of experts, journalists did nothing but take over information posted by well-known doctors on Facebook.

The fact that most of the information sources used by journalists were governmental institutions which deal with supervising food products confirms the results of other studies that emphasized the fact that journalists tend to use governmental sources when they talk about food crises (Li and Izard 2003; Powell and Self 2003; Shan et al. 2014). International studies indicate that traditional media (TV and newspapers) use, to a small extent, news from other media as information sources (5.7 per cent—Shan et al. 2014). The present analysis emphasizes that the online media from Romania use as sources news and media articles written by other journalists to a large extent (one-fifth of the articles).

How the online media from Romania present the food crises is different from how traditional media or social media from other countries cover this subject. The analysis of articles from the online media regarding food alerts from Romania shows that journalists include only two topics (scientific and economic). In comparison, the articles from the international media cover four topics (scientific, economic, political and social—Shan et al. 2014). The online media from Romania are focused on a scientific topic, and they give information about diseases (14.2 per cent), about consuming infected products and their consequences upon people's health (47 per cent) and about recommendations for the population (38.6 per cent) and risk groups (28.5 per cent). Only one topic might be included in the economic topic domain. That is information referring to how the population could receive back the money spent on the products that had been withdrawn from the market (55 articles).

The articles about withdrawn products were published in a higher number in the first seven months of the year, that is, in the period in which most of the withdrawal alerts were issued. Although we would have expected that the number of articles which present withdrawal alerts should be directly proportional to the number of alerts issued for every hypermarket, the analysis showed that journalists choose to cover the alerts differently for every hypermarket. There are situations, therefore in which some shops were mentioned twice more often than others, even though they all had an equal number of alerts.

Only half of the pictures included by journalists in their articles allowed the identification of products withdrawn from the market. Journalists seem to be more interested in presenting alerts about chicken, pork and beef although NAVHFS issued more alerts for salmon. Most of the articles present only one product withdrawn from the market and journalists very rarely correlate information about the withdrawn products with other alerts issued for the same product in the same year.

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An Argument for a Broader Definition for Food Literacy: Findings from a Systematic Review

Bianca Fox and Valentina Marinescu

18.1 INTRODUCTION

Food literacy is a relatively new concept that first appeared in public health literature in 2001 and has only started being used more widely in health and education research since 2010 (for a review see Truman et al. [2017a](#)). A plethora of new studies exploring and advancing the knowledge and understanding of food literacy are being published every year, with more than 10 studies published every year since 2010 (Truman et al. [2017a](#)) but despite this burgeoning interest in this newfound scholarly subfield over the past nine years, the majority of research originates in the United States, Canada, and Australia, with almost no peer-reviewed studies conducted in Europe (Truman et al. [2017a](#)). Research from Northern and Central European countries—specifically the United Kingdom, Italy, France, the

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Netherlands, Switzerland, and Denmark—is still scarce as scholars only recently started developing an interest in food-literacy-related research (Amouzandeh et al. 2019) and results are still to be published.

Various waves of food literacy research have emerged in the last 19 years since the concept started being used, moving the field from simply identifying new phenomena to critically analysing the concept and devising a range of food literacy models and conceptual frameworks. Current research, however, still seeks to provide a more detailed analysis of the components and attributes of food literacy (Truman et al. 2019) in an attempt to reach conceptual consensus. Despite the continuous efforts to describe the concept and identify its characteristics through both descriptive and empirical studies, the field of food literacy studies is still in its infancy, and food literacy definition is continually being expanded.

While existing research has been useful and fruitful, the relation between food literacy and other associated terms (such as health literacy and nutrition literacy) is far from being fully understood. However, recently a few studies have managed to provide conceptual clarification on the relation between these three concepts (see Krause et al. 2018; Vettori et al. 2019). Consequently, food literacy is starting to emerge as a specific form of health literacy (Krause et al. 2016; Poelman et al. 2018) and is considered a broader concept that incorporates nutrition literacy (Krause et al. 2018; Vettori et al. 2019). In fact, its entire evolution has been compared to the development of the health literacy concept (Cullen et al. 2015) and most attempts to reach a comprehensive definition are based on and refer to elements of health literacy (Carbone and Zoellner 2012; Mitic and Rootman 2012).

Starting from Renwick and Powell (2019, 24) who state that food literacy definitions place “an overwhelming emphasis on *food*, with far less attention on *literacy*”, this chapter aims to identify types of literacy frequently included in these definitions in an attempt to provide conceptual clarification on what literacy skills are included and what literacy skills are still missing from food literacy definitions. As such, we mapped specific skills and competencies listed in food literacy definitions to the four domains of literacy included by Zarcadoolas et al. (2005) in their extended health literacy model, namely: fundamental literacy, science literacy, civic literacy, and cultural literacy. A total of 26 food literacy definitions were retrieved from peer-reviewed articles published between 2001 and 2019 and common themes and gaps in literacy skills were identified within them. In light of these results, this chapter argues for a broadening of the definition of food literacy to include media and digital skills. To our knowledge, this is the first study to identify gaps in literacy skills included in existing food literacy definitions.

18.2 METHOD

A systematic search of the literature was conducted between January and March 2019, using the term “food literacy definition” within the following databases: PubMed, Scopus, Medline, Web of Science, and ScienceDirect. In total, a number of 119 articles were reviewed, and 28 definitions were included in the analysis. Inclusion criteria were based on the articles’ contribution to defining the concept of food literacy. In order to avoid repetition, articles using existing food literacy definitions without adding anything new to these definitions were not included in the analysis. Furthermore, only peer-reviewed academic articles were included in our analysis (see Fig. 18.1), while articles published in the “grey literature”, conference abstracts, PhD and master theses, and articles published in languages other than English were removed.

A number of 45 articles were screened for full text in order to identify a wide range of food literacy definitions, and a number of 26 original definitions for the concept of “digital literacy” were identified and included in

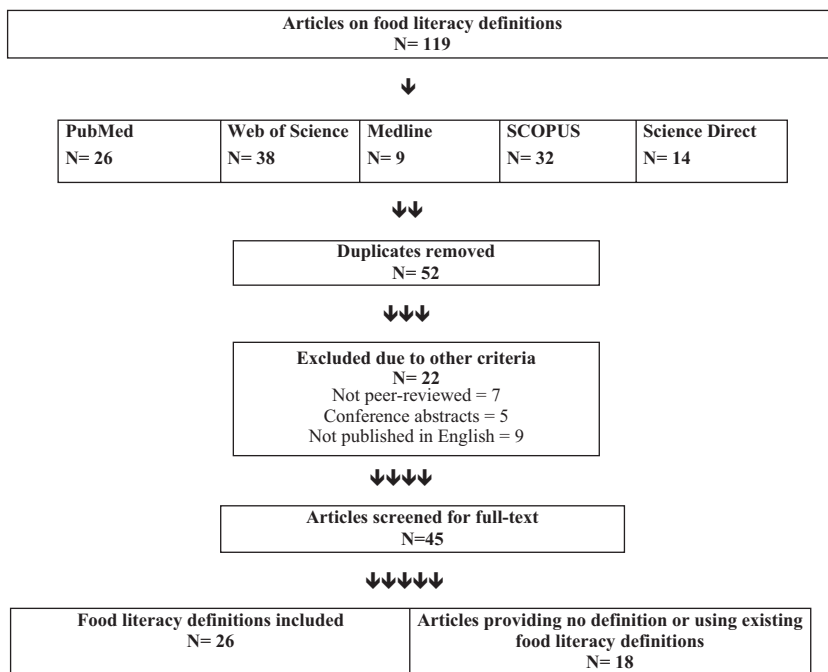


Fig. 18.1 Systematic review process: Articles included in the analysis

the analysis (see Table 18.1). These were stored and coded using NVivo 12.5 (QSR International), which allowed us to query and manage the data with ease. Key elements, like the year of publication, name of the author(s), and title of each article, were retrieved, and ways to conceptualize food literacy were coded and examined using a bottom-up thematic analysis approach (Braun and Clarke 2006). The definitions were grouped in order of their year of publication, and common patterns were identified in the development of a definition, from the first attempt published in 2001 to the most recent ones published in 2019. In addition, Zarcadoolas et al.'s (2005) expanded model of health literacy was used to map skills and competencies included in each definition. Zarcadoolas et al. (2005) propose four literacy domains integrated into health literacy, as follows: fundamental literacy, science literacy, civic literacy, and cultural literacy. According to the authors, fundamental literacy “refers to the skills and strategies involved in reading, speaking, writing and interpreting numbers”, science literacy “refers to levels of competence with science and technology, including some awareness of the process of science”, civic literacy “refers to abilities that enable citizens to become aware of public issues and to become involved in the decision-making process”, and cultural literacy “refers to the ability to recognize and use collective beliefs, customs, world-view and social identity and act on health information” (Zarcadoolas et al. 2005, 197). We used these four literacy domains plus a fifth category, “less or no focus on literacy”, as an analytical grid to interpret each definition (see Table 18.1). Both authors independently mapped the skills and competencies included in food literacy definitions to the four domains of literacy, and the results were compared and discussed before a final decision to include a definition in a specific literacy domain was taken.

18.3 RESULTS

A rise in the number of attempts to provide a comprehensive definition of the concept was identified particularly after 2010, which shows a growing interest in achieving conceptual clarity on the components of food literacy. Food literacy definitions build on previous knowledge, with each study adding new elements or new key skills to the definition of the concept.

Our analysis identified disparate stages in the development of food literacy definitions. First, most definitions focus on individuals and individual behaviours and not on the individual as part of community/society. Food literacy started being described as a less individual-centred concept

Table 18.1 Analysis of “food literacy” definitions

Year of publication	Author(s)	“Food literacy” definition	Less or no focus on literacy	Literacy		
				Fundamental literacy	Science literacy	Civic literacy
2001	Kolasa et al.	“the capacity of an individual to obtain, process and understand basic food information about food and nutrition as well as the competence to use that information in order to make appropriate health decisions” (p. 1).		X		X
2005	Cardwell	“power to understand the how factors that contribute to physical and biological changes affecting all life systems and to have a view on how to further mediate change in a way that can be translated into action” (p. 116).		x	X	X
2008	Rawl et al.	“focuses on food and nutrition information to help individuals make appropriate eating decisions” (p. 49).		X		X
2010	Gallegos and Vidgen	“an emerging term used to describe what we, as individuals and as a community know and understand about food and how to use it to meet our need, and thus potentially support and empower citizens to make healthy food choices” (p. 7).	X	x		

(continued)

Table 18.1 (continued)

Year of publication	Author(s)	“Food literacy” definition	Less or no focus on literacy	Literacy		
				Fundamental literacy	Science literacy	Civic literacy
2011	Fordyce-Voorham	“an individual’s ability to read, understand, and act upon labels on fresh, frozen, canned, frozen, processed, and takeout food” (p. 119).		X		
2011	Vidgen and Gallegos	“the relative ability to basically understand the nature of food and how it is important to you, and how able you are to gain information about food, process it, analyze it and act upon it” (p. 33).		X		
2011	Macdiarmid et al.	“knowledge, attitudes and food choices” (p. 736).	X			
2011	Pendergast et al.	“the capacity of an individual to obtain, interpret and understand basic food and nutrition information and services as well as the competence to use that information and available services that are health enhancing” (p. 418).		X		
2011	Thomas and Irwin	“a complex, interrelated, person-centred set of skills that are necessary to provide and prepare safe, nutritious, and culturally-acceptable meals for all members of one’s household” (p. 501).	X			X

2011	Bublitz et al.	“expands traditional measures of nutrition knowledge to include not only what people know about food but their ability to use that information to facilitate higher levels of food well-being. Food literacy ranges from declarative types of knowledge (e.g., knowing what asparagus is and what types of the nutrients asparagus might provide) to procedural knowledge (e.g., how to cook this vegetable)” (pp. 3–4).	X	X
2011	Block et al.	“We define food literacy as more than knowledge; it also involves the motivation to apply nutrition information to food choices. Whereas food knowledge is the possession of food-related information, food literacy entails both understanding nutrition information and acting on that knowledge in ways consistent with promoting nutrition goals and FWB [food well-being]. Food literacy has three main components: conceptual or declarative knowledge, procedural knowledge, and the ability, opportunity, and motivation to apply or use that knowledge” (p. 7).	X	X
2012	Carbone and Zoellner	“is a key factor accounting for differences in dietary habits with more-healthy eating practices positively associated with higher nutrition literacy skills” (p. 255).	X	x
2012	Cullerton et al.	“an emerging term used to collectively describe a range of knowledge and skills needed to use food” (p. 2).	X	

(continued)

Table 18.1 (continued)

Year of publication	Author(s)	“Food literacy” definition	Less or no focus on literacy	Literacy		
				Fundamental literacy	Science literacy	Civic literacy
2013	Sumner	“the ability to ‘read the world’ in terms of food, thereby recreating it and remarking ourselves. It involves a full-cycle understanding of food—where it is grown, how it is produced, who benefits and who loses when it is purchased, who can access it (and who can’t), and where it goes when we are finished with it. It includes an appreciation of the cultural significance of food, the capacity to prepare healthy meals and make healthy decisions, and the recognition of the environmental, social, economic, cultural, and political implications of those decisions” (p. 86).		x	X	X
2013	Desjardins et al.	“a set of skills and attributes that help people sustain the daily preparation of healthy, tasty, affordable meals for themselves and their families. Food literacy builds resilience, because it includes food skills (techniques, knowledge and planning ability), the confidence to improvise and problem-solve, and the ability to access and share information. Food literacy is made possible through external support with healthy food access and living conditions, broad learning opportunities and positive socio-cultural environments” (p. 69).		X		X

2013	Thomas and Irwin	“Youth described food literacy as an understanding and knowledge of food preparation, from start to finish food selection, purchase, preparation, and preservation” (p. 17).	X	
2014	Vidgen and Gallegos	“scaffolding that empowers individuals, households, communities or nations to protect diet quality through change and strengthen dietary resilience over time. It is composed of a collection of interrelated knowledge, skills and behaviours required to plan, manage, select, prepare and eat food to meet needs and determine intake. This can simply be interpreted as the tools needed for a healthy lifelong relationship with food” (p. 54).	X	X
2015	Cullen et al.	“the ability of an individual to understand food in a way that they develop a positive relationship with it, including food skills and practices across the lifespan in order to navigate, engage, and participate within a complex food system. It’s the ability to make decisions to support the achievement of personal health and a sustainable food system considering environmental, social, economic, cultural, and political components” (p. 143).	X	x
2015	Bohm et al.	“the ability to problematize food and health in relation to both social norms and nutrition” (p. 102).	X	x

(continued)

Table 18.1 (continued)

Year of publication	Author(s)	“Food literacy” definition	Less or no focus on literacy	Literacy		
				Fundamental literacy	Science literacy	Civic literacy
2015	Vaitkeviciute et al.	“food literacy is not just nutrition knowledge; it includes skills and behaviours, from knowing where food comes from to the ability to select and prepare these foods and behave in ways that meet nutrition guidelines” (p. 650).	X			
2016	Palumbo	“Food literacy concerns the ability to collect and process relevant information to properly use food in a perspective of enhanced physical and psychic well-being” (p. 100).		X		
2017b	Truman et al.	“Food literacy involves broad sets of skills and knowledge about food origins and systems; individual and collective food experiences; food identification; physical, emotional and mental effects of food; as well as basic abilities related to food’. (...) It also requires a’ foundation of knowledge, understanding and awareness that allows people to perform actions related to food and think critically about their relationship to the broader food system” (p. e213).		X	X	x
2018	Krause et al.	“Food literacy as a comprehensive concept including a variety of skills and abilities needed for a healthy relationship with food and to participate and engage for a sustainable food system” (p. 275).	X		x	

2018	Wickham and Carbone	“Food literacy is about acquiring and developing the food-related skills necessary to help create behavior change” (p. 342).	X	
2019	Fisher et al.	“Food literacy refers to an individual’s knowledge, skills and behaviour as demonstrated through the sourcing, consumption as well as the nutritional, economic, safety and social aspects of food” (p. 16).	X	
2019	Renwick and Powell	“food sovereignty provides a key means of understanding the potential rewards of increasing emphasis on the ‘literacy’ aspect of food literacy. In this framing, food literacy involves developing the knowledge, critical thinking, analytical, and communication skills necessary to join communities surrounding food systems and the social relations in which they are embedded” (p. 29).	X	X

in 2010 when the term “community” was included for the first time in Vidgen and Gallegos’ (2010) definition of food literacy (see Table 18.1). Second, only from 2014, food literacy definitions started emphasizing the idea of continuity and improving individual levels of food literacy in time. Vidgen and Gallegos (2014) and later Cullen et al. (2015) suggest that food literacy changes over time and should improve during one’s lifespan. Third, our results show that even if most of the digital literacy definitions analysed include almost the same components, the definitions have evolved in time to include more sophisticated literacy skills and critical literacy skills. Early attempts to define the concept of food literacy started from including fundamental literacy skills (such as the ability to access, process, and understand food information) and gradually expanded to include more complex critical skills, such as the ability to select food-related information and use this information to make healthy food choices (see, e.g., Rawl et al. 2008; Vidgen and Gallegos 2010; Vidgen and Gallegos 2011; Macdiarmid et al. 2011). A few years later, food literacy definitions expanded again to include an understanding of the impact that one’s food choices can have on others, on the society, or on the environment (see Sumner 2013). Besides, engagement and participation in food systems and food communities was not listed as a component of food literacy until 2015 (Palumbo 2016), and it was not mentioned again until very recently, in 2019 (Renwick and Powell 2019).

Using the analytical grid, a number of 12 food literacy definitions (meaning almost 50% of the definitions analysed) were identified to focus more on food and food practices than on literacy. Despite a clear emphasis on food, particularly on cooking or sourcing food, elements of fundamental literacy or cultural literacy are still implied in the definitions included in the analysis, even if not directly expressed in text (see, e.g., Vidgen and Gallegos 2010; Thomas and Irwin 2011; Cullen et al. 2015). The remaining 14 food literacy definitions make references to fundamental literacy, with clear examples of basic skills that one must acquire to become food literate, such as the ability to access, process, and understand food-related information and the ability to use this information to make informed food choices. This set of skills is considered essential, and it is used almost unanimously to characterize a food literate person. However, a number of five definitions mention the need of a more complex understanding of food systems, making clear references to science literacy skills, such as understanding food-related statistics, understanding food labels, and understanding food and food practices within the

context of the broader food system. These were included in the science literacy domain alongside definitions that refer to sustainability or impact on the environment.

A number of nine definitions highlighted the need to have decision-making abilities and an understanding of the broader implications of these decisions and were included in the civic literacy domain (see Table 18.1). These definitions argue that more important than having the skills to access and make sense of food-related information is the ability to understand and apply this information, as well as the ability to make healthy food decisions and to generate change at familial/community/societal level. However, according to Zarcadoolas et al. (2005), media literacy skills also form part of the civic literacy domain. These skills were not identified in any of the food literacy definitions included in our analysis.

Elements of cultural literacy were identified in only three definitions (Thomas and Irwin 2011; Sumner 2013; Desjardins et al. 2013). Thomas and Irwin's (2011) definition of food literacy is the first ever to mention the cultural dimension of food and the need to make food that is culturally accepted by others (see Table 18.1). This definition suggests that a food literate individual should not only be able to purchase the right ingredients and know-how to prepare the food but also be aware that particular food may not be deemed culturally accepted by others. Overall, these three definitions consider food and food practices to be deeply embedded in one's cultural background. The ability to understand food in a cultural context acknowledging the cultural differences of food practices and the cultural understanding and impact of food and food choices are listed as a key food literacy skill. Moreover, these definitions are focusing on building social relationships by implying that food should be consumed in the presence of others.

Overall, food literacy definitions tend to focus on one primary literacy domain, whilst also including elements from two or three other secondary literacy domains (see Table 18.1—the main literacy domain is marked with “X”, and secondary literacy domains are marked with “x”). Only one definition contains elements from all four literacy domains (fundamental, science, civic, and cultural) and that is Sumner's (2013, 86) definition that describes food literacy as “the ability to ‘read the world’ in terms of food, thereby recreating it and remarking ourselves. It involves a full-cycle understanding of food—where it is grown, how it is produced, who benefits and who loses when it is purchased, who can access it (and who can't), and where it goes when we are finished with it. It includes an appreciation

of the cultural significance of food, the capacity to prepare healthy meals and make healthy decisions, and the recognition of the environmental, social, economic, cultural, and political implications of those decisions.”

18.4 DISCUSSION

The never-ending dispute over what skills and competencies to include in food literacy definitions in order to reflect the complexity of food literacy without distorting its characteristics has generated a lot of confusion and repetition in scholarly discourse. This chapter provides a conceptual clarification of food literacy components and identifies gaps in the domains of literacy included in existing food literacy definitions used in the literature.

Similarly to previous findings (Cullen et al. 2015; Palumbo 2016; Krause et al. 2018) our results show that research in the field of food literacy is still in an exploratory developmental stage, and the concept of food literacy is yet being expanded with every new study. Results show that food literacy definitions have evolved from being focused on individuals’ understanding and handling of food to analysing the paramount importance of food at communal, societal and national level. Moreover, the definition of food literacy expanded to include the vital component of understanding the cultural significance of food and food practices and the impact that one’s food choices can have on others, on the society and the environment. Food literacy definitions include now the need to develop skills and competencies that will allow individuals, communities, and nations to communicate, engage, and participate in food systems and food communities, whilst being fully aware of the cultural and societal significance of food and of the impact that food choices have on the environment and on individual health outcomes.

Contrary to Renwick and Powell (2019), our results show that the majority of food literacy definitions focus on fundamental literacy skills, such as reading, accessing and processing information, understanding basic food-related statistics, or being able to use this information to make healthy food choices. However, out of 28 food literacy definitions, 11 focused more on food, food sources, food preparation, making no or very vague references to literacy.

Furthermore, our findings identify a gap in the literacy skills included in digital literacy definitions that no other study has identified before and that is the lack of focus on media and digital literacy in all of the food literacy definitions analysed. We live in a media-rich world, and with the

growing popularity of social media and mobile technology, food-related information, images, receipts, and communities, as well as food advertisements, have migrated online. Giving the rise in Internet and social media users worldwide (see Kemp 2019) and the infiltration of the Internet and mobile technologies in all the aspects of our contemporary society, digital skills have become vital for getting access to products and services, such as managing our finances, buying food, accessing information, or finding a job. With every aspect of our life being digitalized, having up-to-date digital skills is no longer an option; it is a necessity. Digital skills, such as the ability to filter online information and safely engage in meaningful discussions online, have become fundamental literacy skills, similar to one's ability to read, speak, or write. In fact, the United Kingdom Literacy Association (UKLA) states that to be literate today, one must be "familiar with a range of texts communicated through diverse media and to be able to communicate through a variety of media. In addition, critical discrimination is needed in order to be able to cope with the variable authority of many texts encountered today" (see McDougall and Ward 2017). Therefore, this chapter argues for a broadening of the definition of food literacy to include media and digital skills.

Building on previous knowledge and existing definitions, we, therefore, consider that food literacy is an umbrella term for a plurality of literacies encompassing fundamental literacy (reading, writing, communicating, understanding basic statistics), science literacy (understanding of complex concepts used to describe food ingredients, of the technological processes of food production, and of growing, harvesting, storing and safely disposing of food), civic literacy (being able to use food-related information collected from a multitude of sources to make informed decisions, know how to generate change at societal level, be aware of how individual food decisions and practices can impact public health and the environment), cultural literacy (awareness of the cultural significance of food, familiarity with food-related traditions, beliefs, and customs), media literacy (ability to critically evaluate food-related media-constructed articles, ability to recognize and not disseminate food moral panics, ability to recognize persuasion techniques used in advertising, etc.), and digital literacy (ability to evaluate online information and food providers, ability to find relevant information online, process and apply it to real contexts to improve general well-being, ability to use and evaluate digital resources, engage with online food communities, making connections and creating digital content, and e-Safety skills).

18.5 CONCLUSION

Starting from a reported lack of a shared understanding of food literacy, this chapter explored existing food literacy definitions and identified stages in their development. Our analysis also identified gaps in literacy skills included in 26 food literacy definitions.

Our study has one main limitation: the relatively reduced number of digital literacy definitions included in the analysis generated by the exclusion of articles published in other languages than English. Despite this apparent limitation, we believe that the results would not have been considerably different if definitions from grey literature or country-specific studies published in other languages would have been included in the analysis. We base this argument on the fact that most of the research on food literacy is currently being done in English-speaking countries (see Truman et al. 2017a).

Future research should further investigate the critical role played by literacy in food literacy. Food literacy education should develop programmes to help individuals understand food and food practices in the broader context of an increasingly digital and tech-centred world.

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Educating Through Television in Health and Nutrition

Valentina Gueorguieva

Television has remained the dominant form of cultural consumption in the first decade of the twenty-first century. Despite the rise of internet and streaming sites, watching television is still the preferred pastime or popular leisure activity for large segments of the population (Storey 2010, 9). In the form of serious news or entertainment programmes, it continues to be a significant source of information.

The potential of television, among other mass media, for public health campaigns has long been underlined. Studies show how public campaigns aiming at “denormalisation” of tobacco use, along with other policies for tobacco control, have had a positive effect and reduced tobacco consumption (Studlar and Cairney 2019). The authors stress the importance of the “cumulative weight” of a variety of measures including education and limited advertising, as well as more coercive instruments like the prohibition of consumption in public spaces, health warnings on packaging and augmentation of prices. The lessons from tobacco can be used by public

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health advocates to apply a similar model of policy change to other issues like nutrition and obesity.

The particular interest in this chapter is the education part of public health campaigns, seen as a complex set of measures ranging from communication to regulation. No doubt, education in itself is not enough for changing lifestyles and bad habits recognised as risk factors for various diseases. Education campaigns, when placed in media environments, meet other messages encouraging these same bad habits, stimulated by commercial advertising of various products. This is especially true for nutrition habits, where public policy has to compete with food advertising. Media and marketing messages for food remain the primary source of information for school-age youth and have a significant effect on their consumption choices and obesity risk (Austin et al. 2018).

The pressure dynamic between public policy and food advertising is visible on their preferred medium of communication—television. Along with other indoor and outdoor promotional platforms, television remains an essential medium for the food industries. Who will take the lead—public policy health campaigns or commercial advertising? The battle seems already lost, since food manufacturers “buy extensive advertising space on television, radio, on cinema screens, in print media and increasingly online” (Gunter 2016, 2). Besides, watching TV may be in itself a habit reducing physical activity and as such a risk factor for health. Nevertheless, public education campaigns are placed on television for two reasons: on the one hand, to alarm the viewers about their passive ways of life and, on the other, to counterbalance the messages conveyed in food advertising. Furthermore, television still has the potential to reach out to the most significant segments of the population, in comparison with all other media outlets.

Can television have a stronger effect on nutrition habits? Moreover, are there other possibilities for public health campaigns to enhance their effect on the viewership?

19.1 IDENTIFICATION OF SIGNIFICANT ISSUES AND DEFINING STRATEGIES FOR PUBLIC HEALTH CAMPAIGNS

The Global Health Observatory of the WHO declared ischaemic heart disease and stroke as “the world’s biggest killers,” according to data from 2016 (WHO 2018). These diseases are cited as “the leading causes of

death globally in the last 15 years.” Bulgaria is no exception from the global trend. The 2016 country profile for non-communicable diseases (NCDs) shows an average of 64% of deaths corresponding to cardiovascular diseases, and NCDs are estimated to account for 95% of all deaths. One of the main risk factors is “raised blood pressure” (36%), preceded only by physical inactivity (41%; WHO 2016).

Data from the National Statistical Institute of the Republic of Bulgaria display similar numbers. For the same year (2016), the total number of deaths is 107,580, and 70,459 of them are classified as Class IX—due to cardiovascular diseases (I00–I99), which correspond to 65.54% of the total number of deaths (National Statistical Institute 2018).

These cause-of-death statistics indicate what public health policies need to address in order to help prevent deaths caused by cited illnesses. Campaigns against risk factors for NCDs usually target healthy lifestyle practices, nutrition habits and literacy, physical activity and regular medical checks. When shown on TV screens, public health campaigns compete with food manufacturers, who are among the most prominent promoters and marketers of any product category in the mainstream mass media.

The Ministry of Health of the Republic of Bulgaria has long been the leader of public health campaigns, but are these campaigns as effective as desired? In January 2012, the Ministry launched a national health campaign aimed at reducing salt consumption under the heading “Do not add salt to your health.” The objective of the media campaign was to “raise population awareness on the health effects of salt” (Министерство на здравеопазването 2012). The information campaign addressed salt consumption in three domains: public restaurants and fast-foods, food prepared at home, and processed food. Each domain is covered by a separate set of materials including videos (long and short versions), audio spots and information brochures.

19.2 THE CAMPAIGN “DO NOT ADD SALT TO YOUR HEALTH”

“An extra pinch of salt” is a 27-minute long video devoted to the risk of exceeding the daily intake of salt while eating out. Its main topic is the city with its multiple options for consumption choices from fast-food street stops to fancy restaurants. As the presenter says in the opening scene, “the city, this impossible habitat of hours” offers a variety of choices, but nobody

knows the exact quantity of salt that we consume with a street *kebab*. He then proceeds to explain the effect of salt on the water content in the body, hence the rise of blood pressure and the risk of cardiovascular diseases, dropping casually along the lines the striking statistics of more than 2.5 million people with hypertension, as well as defining strokes and other cardiovascular diseases as the major cause of mortality in Bulgaria. He then goes back to the initial question of how much salt there is in a street *kebab*.

The popular explanation of the presenter is supported by expert interviews with dietologists and cardiologists, stressing the dangerous amount of salt that we habitually consume. However, can we control the adding of salt to our food? Can we trust the producers of ready-made food in the city? The video continues with interviews with restaurant managers and chefs who declare that the general trend is to reduce the amounts of salt. They do so for a convenient reason—if the customer finds a dish too salty, she or he will not be pleased and will not revisit their restaurant; while if they find the dish not salty enough, more salt can always be added.

Nevertheless, the chefs admit that a pinch of salt is always added during heat cooking to enhance the flavour, and nobody knows the exact amount of salt added. Even when specified in the recipe books, the chefs just use their taste or instincts when adding salt among other spices. Two more interviews are included in this video, with chefs from popular TV shows who give their advice on cooking at home. Salt consumption is a habit, they say, which is hard to change, but we can use spices with more pronounced scent and taste to replace the taste of salty and prepare healthier food at home.

“The salt of life” is a Bulgarian expression for something that makes life interesting, enjoyable and worth living (the equivalent in English would be “the spice of life”). The expression is used as a title for the second video from the national campaign, devoted to salt consumption in home cooking. It starts with a personal story: a healthy and strong man in his 40s has a sudden hypertensive crisis and finds himself in hospital, surrounded by his worried wife and two kids. The doctor then explains to the family that hypertension is a long-term medical condition that typically does not cause symptoms and can pass unnoticed, but it is related to lifestyle factors such as the preference for salty food. The wife acknowledges that her husband and the whole family have a taste for salt, “but who does not, we all like salty.” The video then illustrates her words with the national tradition of welcoming guests with bread and salt, with some favourite traditional Bulgarian dishes, all rich in salt. More than a habit or a personal taste, salt is a national tradition which is hard to change.

The episode in the hospital is followed by a sequence of short interviews with ordinary people shot in a retail centre. It demonstrates that they are not familiar with the recommended daily intake of salt and are not informed about the risks of high salt intake for health. The results of a national survey on nutrition literacy are then presented to indicate that only 9% of the population is informed that the primary source of salt consumption is bread and pastry products. A medical specialist further develops the thesis of low nutrition literacy and provides an example from Finland to illustrate how successful information campaigns may lead to a healthier lifestyle. The traditional taste of the Bulgarians for salt can be changed and needs to be changed to prevent hypertension and related conditions.

The storyline then goes back to the family from the opening scene, and the wife tells us that the taste for salt can be educated. By reducing the quantities used in home cooking day after day, by special attention to the diet of small children, we can train our senses to like less salty food and thus do lifelong favour to our kids who adopt a healthy nutrition habit.

“Eating with etiquette” is the title of the third video and a wordplay, where *etiquette* refers to fine manners at the table and to the labels of the food products (in Bulgarian “label” is “*etiket*”). It also starts with a personal story. This time in the opening scene, we see an elderly lady in a supermarket. She confesses that she has been diagnosed with hypertension for 20 years. Hence, she has to reduce salt consumption but finds herself unable to detect the amounts of salt in processed food. She carefully reads the label on a jar of *lyutenitsa*—a typical Bulgarian relish made of tomatoes, roasted peppers and other vegetables. She puts on her glasses and even takes out a magnifying glass from her purse but says that she is still confused about the ingredients she reads on the label and cannot find the precise indication on salt.

And she is not to blame because the law does not oblige the food processing companies to indicate the precise quantity of salt used in the product on its label. The viewer learns this valuable information from an expert at the department of food quality control in the Ministry of Health.¹ Like in the first video devoted to street food and restaurants, once again, the consumer cannot control the intake of salt but is relying on the producers.

The video goes on with a sequence of short interviews with ordinary people in a retail centre, who show a deficient level of awareness about the quantities of salt used in different types of processed food. For a very long historical period, salt was used as the main method for food preservation

and is still used in processed foods as both a preservative and flavouring. It is used in pickles, meat, dairy and pastry products. However, product labels are hard to read, and the population has a low awareness of how to use them. In an interview with a technician from industrial cheese production, we learn that we should not be worried about the quantities of salt in cheese. On the contrary, a friendly-looking woman working in a small local bakery acknowledges that she puts more salt in her bread to add taste.

The three videos present essential information for a healthy lifestyle in an accessible way. Weaving survey data and expert interviews into the storyline, influencing viewers' identification with personal stories and everyday examples, the videos from the campaign "Do not add salt to your health" reach out to the general public in order to raise awareness and develop sensitivity about salt consumption, to educate in the importance of controlling one's daily intake of salt.

The length of the videos (27 minutes each) can be seen as an impediment to their distribution. The full videos were broadcast only on public television BNT or the Bulgarian National Television, in a health transmission which typically did not have a big audience (it was cancelled in 2018). The information from the three videos was also released in the form of TV spots (three spots from each of the aforementioned three videos, and one general TV spot for the overall campaign), radio spots and leaflets.

It is impossible to measure the reach of the short videos, the TV and radio spots, and the overall campaign with accuracy. They were aired on the two public media—the Bulgarian National Television and the Bulgarian National Radio—which do not attract the highest per cent of the audience on a national level. Despite the lack of precise data from audience measurement, it is highly probable that the national campaign of the Ministry of Health did not have the desired and necessary outreach in order to change the low levels of nutrition literacy regarding salt consumption, demonstrated by the surveys it cites.

19.3 EDUCATING THROUGH POPULAR CULTURE: THE CASE OF A MEDICAL DRAMA

An alternative to the problem of insufficient outreach through public television can be sought in commercial TV channels. The media product that typically attracts very high viewing numbers is the TV series. However, can they serve an educational purpose?

There is a considerable difference in the strategies employed by public and commercial TV channels regarding health and nutrition education. Undoubtedly, commercial TV channels are pursuing higher viewing numbers, while public television has a “public mission” to educate the audience. The main goal of the creators of TV series is to entertain the viewership, to keep it watching TV for as long as possible. By thickening the plot or interrupting the storyline at the tensest moment, by creating expectations for the next episode or by serving the viewer with unsuspecting twists, the series meets the requirements for a successful commercial product. Moreover, at the same time, it can offer role models through characters, stories and commentary of events, which can ultimately, directly or indirectly, contribute to some socially desirable goal. A socially desirable goal can be understood as the public’s awareness of health, useful and harmful habits such as smoking or irresponsible driving, increasing sensitivity to violence, approaching social distances, tolerance and understanding of difference. Thus the two main goals in the media industry—the commercial and the social—are not incompatible. One can go in parallel with the other.

In the following section, I will present two characters from a current Bulgarian TV series—*Stolen Life* (in Bulgarian *Otkradnat zhivot*)—and inquire into their nutrition habits. This small case will shed more light on the possible influence that a popular TV series might have on behavioural habits. Here the patterns created by popular culture will be considered from the point of view of educating the viewership in healthy lifestyles.

According to this hypothesis, the TV series *Stolen Life* produced and aired by the commercial TV channel NOVA Television Bulgaria fulfils both goals. It simultaneously entertains the viewer by keeping her/him in front of the television for as long as possible and proposes patterns of behaviour that have a social function and contribute to nutrition literacy, as part of its educative role.

The series *Stolen Life* is a co-production of Dream Team Productions and NOVA Broadcasting Group. The pilot episode was aired on Nova on March 8, 2016. By November 2019, eight seasons were aired exceeding 300 episodes and reaching a record number of episodes aired nationally for such a short period (NOVA n.d.). The series features more than 700 actors with a team of 6 directors and 3 producers. According to data provided by Nielsen Atmosphere Bulgaria to NOVA television, the rating of *Stolen Life* is 9.9%, or as a share of the audience, the series reaches 29.2% of all viewers at the time of broadcast (data collected in January–November

2017, Антонова 2017). The data from audience measurement show that the production has fulfilled its commercial purpose—it continues to keep the interest of viewers.

As a genre definition, *Stolen Life* is a medical drama. Just like in the American champions of the genre, *ER* and *Grey's Anatomy*, the storyline presents the relationships between the doctors in a hospital (the protagonists in the film), enriched with the brief histories of patients passing through its departments.

While love relationships between the main protagonists of the series fulfil the commercial function of the production, that is, to withhold viewers' attention throughout the eight seasons of the drama, it is through the short stories of patients deployed within the limits of one or maximum two consecutive episodes that the series fulfils a social function—to inform and educate. Some characters in the short stories represent social groups that are most affected by traditional prejudices in society, such as Roma, poor and not well-educated people, people with different sexual orientation and gender identity, patients with diseases and addictions stigmatised by society. Thus the series in its first six seasons conveys a liberal message to bridge traditional gaps and social distances in Bulgarian society, to educate in tolerance and social inclusion.

Through the single episode stories, the viewers learn as well about some common ailments and bad habits. The trade names of dietary supplements or over-the-counter medicines that can help in such cases are subtly interjected into the plot as minor details. Following the suspense around one of the main characters' fight with breast cancer, the viewer understands the importance of prevention and breast screening. When a surgeon operates on an HIV-positive patient, we learn how the virus can be transmitted to the doctor and how long it takes before the tests can detect contamination. When do we need to vaccinate our daughters against papillomavirus? And what are the risks after kidney transplantation? These are the types of health issues that the series addresses and transfers necessary information to the viewership.

Many more examples of elementary medical education can be found in the series. What we are interested in here are nutrition-related information and behavioural patterns. Two protagonists are interesting for scrutiny from this point of view: Violeta Zacharieva and Ina Foteva. They are not part of the medical team of the hospital and, as such, have more relaxed working days, having more free time for a healthier lifestyle.

Violeta Zacharieva is a beautiful, stylishly dressed, rich and powerful woman—the vice-director of the medical lab of the hospital. She is more of an upper-rank manager than a medical practitioner. Thanks to her close connections (or illicit agreements) with medical supplies companies, she benefits from a generous income reaching up to six number values, as hinted in episodes of the first season. She is a business lady in her late 40s or early 50s, and she is not embarrassed to live an ostentatious lifestyle.

Her taste for food is a demonstration of status. The viewer often sees her in a fancy restaurant ordering dishes with sophisticated names. When at home, she orders food from a restaurant rather than cook it herself. She never talks about healthy lifestyle or the nutrition qualities of the food. To meet her requirements, a dish should be stylish and expensive. She does not have a specific daily routine of diet. Violeta Zacharieva's taste for food is a demonstration of status.

In season two, Violeta is diagnosed with breast cancer. She goes through surgery and chemotherapy. The illness forces her to abandon her lavish lifestyle and her old personality. In a dramatic episode she loses her hair but stays strong and makes a promise to herself. Violeta starts a campaign for cancer prevention and invests in a mobile test lab. With the help of the PR expert of the hospital, she runs an information campaign in the media. After the recovery phase, she returns to her old habits of food consumption as a demonstration of status.

In contrast, Ina Foteva is obsessed with a healthy lifestyle, dietary supplements and superfood. Ina has the beauty and innocence of a girl with strong ambitions, supported and encouraged by her wealthy husband. She is the young wife of the new owner of the hospital and steps in as a financial director of the institution. Her young age and lack of professional experience in management are met with hostility and ridiculed by the team of doctors. She uses eastern influences to redecorate the interior of the hospital, adding decorative plants and other elements for a relaxing atmosphere. Nurses and doctors compare the new arrangement to a spa centre and speak behind her back, not being able to oppose her powerful patron. She gets the same reaction when she tries to order some fancy superfood in the hospital cafeteria. In a way, the doctors' reactions convey a message to the viewer: "Do not get succumb to the marketing strategies of the manufacturers. Superfood is not a cure, but just a fashionable lifestyle."

As for the nutrition habits of the doctors in the series, they are often pictured in the cafeteria of the hospital, eating a quick dish or a salad during their short breaks. It is from this same cafeteria that doctors grab a

ready-made dinner to take home after a long shift. While talking to the patients about healthy routines and the importance of a balanced diet, the stressful life of a doctor does not allow time to take care of their diet.

Unlike public media, commercial television channels have no obligation to work with a “public mission.” They are free to determine for themselves the information and entertainment products they offer, guided only by the logic of demand, supply and competition in the market. The “public mission” can also be understood as a type of engineering for some socially desirable purpose, like better lifestyle habits or public health, and is typically served by the public media outlets. Fortunately, this bipolar picture of public-commercial media production has been undermined by some specific examples, bringing the two extremes closer together.

The Bulgarian medical drama *Stolen Life* is such an example. It has the typical plot of a TV drama, with its dramatic turns in the storyline following the love relationships of the doctors in the hospital. At the same time, it has a social message and serves some basic elements of health education. Although the primary purpose of the series is not health education or social change, the protagonists of the series provide a commentary to traditions and lifestyles, to popular lifestyle fads, to cultural positions and beliefs. “And since these diverse and sometimes controversial opinions are voiced by familiar and even beloved characters, viewers may be more inclined to consider positions differing from their own” (Pearson 2013, 214). Remaining a commercial product, the series offers commentary, changes perspective and informs and educates the audience.

19.4 CONCLUSION

The purpose of this chapter was to inquire into the potential of two different TV formats for health education. Two cases were used to illustrate different strategies. The national health campaign “Do not add salt to your health” is a classic example of public policy campaigns. Although it is a high-quality information product, accessible in style and aiming to influence wishful identification, it does not necessarily have the desired reach to the audience markets. Also, it does not stand out in the overall media environment where it competes with food advertisement and other commercial strategies. The TV drama *Stolen Life* is itself a commercial product and competes well with other commercial messages related to food and health. Although it does not have the purpose of health education as

intention, it combines entertainment with education and is not afraid of propagating a socially responsible message in other domains different from public health.

Using a medical drama as a medium for education in health and nutrition may present some unconventional tools to enhance nutrition literacy and overcome the difficulties faced by a classic public health campaign. Nevertheless, to serve this purpose, it has to be able to provide trustworthy factual information and other reliable data that appear in the public health campaign. Tiny bits of information related to nutrition and health can be integrated into the storyline of a TV series, only if they are taken from reliable sources and do not serve commercial interests. The producers of a TV series may cooperate with public institutions or with food manufacturers.

Therefore, nutrition-related information conveyed by cultural products such as TV series may be used as part of the strategy of a public policy campaign. Some levels of public control on content related to health and nutrition may be designed, on the example of control on nutrition information labels and media regulations in advertisements.

NOTE

1. This regulation was changed in 2016 with an EU directive. The producers are now obliged to provide exact information on the quantity of salt among other ingredients.

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Food Consumption Behaviour and Lifestyle: A Cross-National Study in Romania, Bulgaria and the Republic of Moldavia

Cristina Bianca Pocol and Mihaela Mihai

20.1 INTRODUCTION: NUTRITION, LIFESTYLE AND HEALTH

Lifestyle is a corollary of our daily choices, our food consumption behaviour and diet, as well as physical activity, sleep patterns, stress levels and inter-personal relationships that leave their short- or long-term mark on our well-being and health. Over the past century, all kinds of changes have occurred. Society has been industrialized and technologized; man is more sedentary, while paradoxically keeping up a more alert daily pace. Man's physical activity has considerably decreased, compared to life a hundred years ago. If, a hundred years ago, humans used to perish as a consequence of various infectious diseases, nowadays, cancer, cardiovascular and

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metabolic diseases are the culprits. Although recent advances in medicine have led to the increase of human life expectancy, they are outweighed by etiological factors, such as sedentary lifestyle, inappropriate and excessive food and alcohol consumption, smoking or psychosocial stress. Their avoidance may infer that the prevention of current health conditions in humans is possible.

Food consumption behaviour is crucial, as it impacts directly on human health. The common consensus is that a balanced diet is necessary. More precisely, several studies state that it is required to include 90% whole plant-based foods in our diet, with minimum processing in order to be healthy and extend human lifespan (Mackey et al. 2017; Campbell and Campbell 2004). According to the World Health Organization (WHO 2018), 55% of the daily energy intake should be supplied by complex carbohydrates (from whole cereals, pulses, fruits and vegetables), 30% from fats (with a maximum of 10% unsaturated fats) and 15% from proteins. Fibres (from fruits, vegetables and whole grains), phytonutrients (such as antioxidants), enzymes (in raw unprocessed food), minerals and vitamins (from plant-based foods) are also highly necessary for the optimum functioning of the organism and disease prevention (Palafox-Carlos et al. 2011; Farvid et al. 2016).

On the other hand, studies reveal that inappropriate food consumption resides both in an excessive consumption of unhealthy, high-calorie foods, devoid of basic nutrients, and in a deficiency of nutritious food intake. Excessive sugar consumption alongside poor overall nutrition, for example, can lead to a deficiency of vitamin B1, while for every 50 grams of processed meat consumed, the risk of cardiovascular diseases and diabetes increases by 42% and 19%, respectively (Micha et al. 2010). Similarly, red meat and processed meat consumption increase the risk of rectal cancer by 30% (Aykan 2015).

Therefore, 30% of the general population suffer from metabolic syndrome, which associates abdominal obesity with different metabolic disorders, such as insulin resistance and the increase of LDL-cholesterol. These favour the occurrence of diabetes, hypertension, cancer and other severe conditions (O'Neill and O'Driscoll 2015).

20.2 PREVIOUS STUDIES ABOUT FOOD CONSUMPTION BEHAVIOUR AMONG YOUNG STUDENTS

As food consumption behaviour influences the health of the population, public health policy should prioritize the investigation of food consumption patterns and promote a healthy lifestyle and disease prevention. Studies have revealed that food consumption patterns worldwide evolve alongside societal changes. They are influenced by external factors (economic, social, cultural), as well as personal (gender, age, education, income, occupation, lifestyle) and psychological factors (attitudes, needs, preferences, motivations, perceptions) (Brătucu and Brătucu 2007). Undoubtedly, the young generation is vital for the health and well-being of society as a whole, and the investigation of their food consumption behaviour became very interesting in the past decades.

Combined-methodology studies have been undertaken worldwide, in the USA, Australia, Bangladesh and Saudi Arabia, alongside similar investigations on university students at European level (from Croatia, Scotland, Greece, Germany, Denmark, Poland and Bulgaria). They predominantly investigate factors, which impact on young people's food consumption behaviour. These factors have been classified into external (social, economic, cultural), as well as internal (thoughts, feelings, perceptions) in a study by Childers et al. (2011). Student lifestyle (independence, student schedule, excessive alcohol consumption, unusual sleep patterns), emotional problems (loneliness, stress, nervous eating, unhappiness), food availability (low student budget for food, lack of healthy options, monotonous food consumption patterns) and weight control (overcoming peer or social pressure, the desire to engage in physical activities, self-image considerations) act as triggers for food consumption patterns in American students (Childers et al. 2011).

Similarly, Papier et al. (2015) investigate the relationship between stress and food consumption among young Australian students, revealing significant gender-based differences in food consumption patterns. Stress is a significant predictor for unhealthy food choices, with male students under stress engaging more in unhealthy eating behaviour and alcohol consumption rather than female subjects, who are more prone to consume healthy food, mainly fruits and vegetables (Papier et al. 2015).

Recent studies were also conducted in the USA by Kuhns and Saksena (2017) but predominantly focused on the Millennial generation's (1981–1996) food consumption behaviour compared to other previous

generations. Their fast pace of life leads to millennials spending less time for food preparation and consumption and the least amount of money for purchasing such food as whole grains, white and red meat while favouring convenience pre-cooked food, pasta and sweets (Kuhns and Saksena 2017). As their standard of living increases, they are shown to favour the purchase of healthier foods, such as fruits and vegetables. The increase in the standard of living and the association with a more health-conscious population which makes the appropriate food choices is contradicted by a study performed in Saudi Arabia on female university students (Al Qauhiz 2010). It reveals that the increase in the standard of living negatively impacts young women's food choices, with higher availability of food (e.g. leading to a preference for aerated beverages) and with an increase in female obesity indices in Saudi Arabia. A similar study conducted in Bangladesh (Nazrul and Ullah 2010) reveals the increase in the standard of living, time constraints and restaurant reputation, nearness and accessibility of fast-food restaurants, cost and quality relationship as the main factors in university students' preference for fast food.

Food consumption behaviour among university students has received attention worldwide, as well as on the European level. Ivanković et al. (2014) identified such familiar factors as the fast pace of life (lack of time to have meals, preference for fast-food products), lack of financial means (marked by choosing the cheapest alternatives), as well as the beginning of independent life (irregular food consumption and lack of experience) in young Croatian people aged 15–26. It is noteworthy that female respondents granted more attention to meals and food diversity than males.

Similarly, a Scottish qualitative and quantitative study (Poobalan et al. 2014) on young people aged 18–25 shows variations in young people's food consumption behaviour, which are strongly influenced by family models and childhood experience against recent factors such as academic stress, lack of time management and organization skills. This study has also concluded that the first year of independence as students or employees was decisive in influencing their unhealthy lifestyle. Awareness related to a healthy diet that contains fruits and vegetables is high among respondents, but it reaches its peak around the age of 20–21, when they appear more healthy-food oriented and health-conscious, on an overall basis (Poobalan et al. 2014).

A more sectorial quantitative approach is observed in a study on male and female medical students in Greece (Chourdakis et al. 2010). They

match previous findings on males being more prone to eat fast-food products and females choosing healthier food, such as fruits and vegetables. Women are proven to be better informed on the health dimensions of their food consumption behaviour and weight-loss constraints, as well as being less overweight or obese than males (overweight: males, 32.1%, and females, 8.4%; and obese: males, 5.9%, and females, 1.5%) (Chourdakis et al. 2010). University students in life sciences, particularly nutrition, were the subject of a study undertaken in Germany (Korinth et al. 2009), which reveals that nutrition students are more health-conscious and make healthier food choices, tend to control their weight and not engage in nervous eating, compared to the control group used in this study.

Compared to the findings mentioned above that predominantly focused on one country, a comprehensive study covering a rather heterogeneous university student population from Germany, Poland, Bulgaria and Denmark (El Ansari et al. 2012) was undertaken as part of the Cross National Student Health Survey (CNSHS), a general health survey among European student populations. It concludes with the existence of unhealthy eating practices among the entire research population (with less than 50% of students who consume fruits and vegetables), consistent with the findings of previous studies mentioned. These practices are universally triggered by the beginning of independent life, away from home and the financial constraints that entail in supporting healthy eating habits (El Ansari et al. 2012). Also consistent with previous studies, differences arise in the case of men and women, as men are generally shown to exhibit less-healthy food consumption behaviour, they are more prone to consume snacks, while females prove to have healthier eating habits, with more fruit and vegetable and less meat consumption than males. Undoubtedly, however, there are variations between the countries investigated, for example, Bulgarian female and male students are the highest consumers of sweets and cakes, snacks and fast food, giving rise to a requirement for public health intervention in Bulgaria (El Ansari et al. 2012).

It is in this context that the present study aims at revealing some essential aspects of food consumption behaviour of university students in Romania, Bulgaria and the Republic of Moldavia, their food choices in connection to their lifestyle trends, culture and traditions in these countries, common shared values, and economic and societal changes over the past decades towards providing recommendations for public health initiatives.

20.3 METHODOLOGY

A sociological enquiry method, the survey, was employed, and it was preceded by a focus group, in order to identify the main topics for the survey and by extensive literature review. Within the context of the increasing imbalances in young people's food consumption habits in Romania that no longer seem to adhere to family eating habits but the hyper-feeding mentioned above and malnutrition phenomenon and suffer their consequences, it is indispensable to use a food consumption survey for any endeavour related to changes in food consumption behaviour. Otherwise, any intervention might be nothing more than a general recommendation, a standard diet or a list of interdictions (Popescu et al. 2015).

Initially, the focus group involved the participation of students in the University of Agricultural Sciences and Veterinary Medicine in Cluj-Napoca, Romania, followed by the selection of students from seven university centres (Cluj-Napoca, Bucureşti, Iaşi, Timișoara, Galați, Plovdiv and Chișinău) in Romania, Bulgaria and the Republic of Moldavia, as the research sample. They were predominantly life sciences and medical students. The sample size was 2378 students (both bachelor and master levels). The respondents were self-selected, and the survey was self-administered during October 2017–July 2018 (Pocol et al. 2018).

20.4 RESEARCH AREA: WHY ROMANIA, BULGARIA AND MOLDAVIA?

Several considerations amount to the choice of these three countries, and they reside in their position, commonly shared values, historic and culinary traditions, and societal and economic development. Their shared values and traditions are strongly influenced by their position in Eastern Europe, subject to strong influences from the Balkans, Russia (Bulgaria is a Slavic country; communist Romania was under Russian influence, while the Republic of Moldavia, formerly a part of Romania and the USSR is, as it may be argued, partly under the political sphere of influence of Russia and partly facing Romania and the European Union [EU]), but also the West and the EU (through globalization and Europeanization). Romania and Bulgaria have been members of the EU since 2007, benefitting from the freedom of movement for the population, workforce and students, but emigration patterns have been strong and similar for all three countries, due to economic constraints imposed by their standard of living.

Romania and Bulgaria do not find themselves on equal footing in terms of the gross average wage, but they belong to the same low average wage category of EU countries, according to Eurostat (2019), with €647 in Bulgaria and €1057 in Romania, respectively. Moldavia is far behind with a gross average wage of €377, according to the 2019 information published by the National Statistics Bureau of the Republic of Moldavia.

This economic context, alongside Romania's and Bulgaria's EU membership, has had a significant influence on lifestyle and consumer choices, particularly in the area of food consumption. Generally speaking, a low standard of living and the lack of financial means impact on food choices. As of 2007, Romania and Bulgaria have had to meet EU regulations and policies in terms of public health and food safety. Moreover, the freedom of movement of the workforce and students and the free European market have subjected the Romanian and Bulgarian population to new influences in terms of food choices (new and diverse foods available, a variety of supermarkets, restaurants and food-related influences), as well as lifestyle trends (with the influence of the more developed Western population more health-oriented towards practising sports and outdoor activities). This has possibly impacted on the young generation more significantly, as they mostly benefit from the freedom of movement, to work or study abroad (as part of such programmes as the Erasmus+ programme) and experience new cultures, lifestyles and culinary diversity.

On the other hand, Western globalizing influences and the fast pace of modern life and thus the overall modernization of society have exerted their influence in the need to always be on the go, in the availability of fast food, in Western and American cultural patterns and tastes. These are becoming more prevalent in the food choices made by the young generation. Indeed, the emigration phenomenon has been significant in all three countries and has subjected the population to changes in lifestyle and food consumption patterns. Nevertheless, even without emigration, food consumption behaviour and lifestyle trends are highly influenced by globalization and the media (Popescu et al. 2015).

To a certain extent, however, historical, cultural, religious and culinary traditions and trends have been preserved in these countries. Their common traits become apparent in the consumption of certain common dishes (such as *sarmale* of Balkan origin), in the consumption of high quantities of meat, especially pork and chicken, associated with other cultural traditions (such as the sacrificing of the pig for Christmas and the lamb for Easter), and rigorous religious fasting (all three countries are predominantly Christian Orthodox) for all segments of the population.

20.5 RESULTS AND DISCUSSIONS

The survey results reveal a predominance of the omnivorous diet among the respondents (as 89% of the students investigated reported the predominant consumption of meat, dairy products and eggs) in close relation to the culinary traditions of the three countries of origin, Romania, Bulgaria and Moldavia (Pocol et al. 2018). However, the excessive predominance of such diet relying on animal-based products associated with carbohydrates (such as rice and potatoes) and a sedentary lifestyle may lead to obesity, nutrition diseases, metabolic syndrome or cancer (only obesity itself is correlated with the occurrence of 13 types of cancer) (De Pergola and Silvestris 2013). Adverse effects can be managed successfully if animal-based products are associated with raw vegetables and daily strenuous physical exercise (Duval et al. 2017). Additionally, for the 10% vegetarian or semi-vegetarian student population, it is considered that their diet offers better protection against metabolic syndrome and multiple types of cancer (Melina et al. 2016).

It is nevertheless necessary to expand on these types of diet. First and foremost, vegetarianism and semi-vegetarianism involve essential health benefits provided that the food includes whole plant-based foods, ecologic products and their correct preparation (without the consumption of fried food). Secondly, they need to be varied and balanced and include all nutrients (e.g., vegans are seldom confronted with a vitamin B12 deficiency). However, regardless of the type of diet, it is noteworthy that 93% of respondents state that their fruit and vegetable consumption was ingrained from childhood. Thus, parental and family models play an essential part in establishing food consumption patterns.

However, only 53% state that they consume fresh fruits and 47% consume fresh vegetables daily (Pocol et al. 2018). As they represent around half of the respondents, this aspect is considered to be positive, as these foods represent a significant mineral, vitamin, antioxidant, enzyme and fibre intake, with a low straightforward carbohydrate content. Additionally, 54% of respondents eat fruits as snacks between meals. Moreover, the daily intake of minerals, vitamins and antioxidants is enhanced by the daily consumption of dry fruits for 6% of the respondents. Also, dry nuts (walnuts, almonds, pistachio, cashew) bring benefits for the health of the cardiovascular and nervous systems, through their omega fatty acid content, vitamin E and minerals (magnesium, calcium), without any downsides for 12% of their daily and 29% of their weekly consumers.

Unfortunately, the study results also reveal that more than half of the respondents consume an excess of carbohydrates daily, with their associated risks (obesity, diabetes, cardiovascular diseases) in the form of white bread (57%), bakery products (14%), potatoes (13%) and rice (6%). It is concerning that only 5% do not consume white bread at all and 2% refrain from eating any bakery products (Pocol et al. 2018). Another significant coordinate in establishing the food consumption patterns for university students is the consumption of dairy products (cheese/Swiss cheese, milk, yoghurt and butter) several times per week for 70% of the students or daily for 30%. Excessive dairy consumption may lead to obesity, while casein (the primary milk protein) was correlated with cancer occurrence (Campbell and Campbell 2004), especially if industrial hormone-enhanced dairy products were consumed.

Surprisingly, margarine is still consumed by 3% of respondents daily and by 11% weekly, although the adverse effects of trans fats are widely known. This can be explained by its reduced cost, compared to butter, if the constraints of student life are factored in. Conversely, ecologic foods are consumed by a small percentage of students who can afford to pay the costs or are aware of the importance and the benefits of these products (21% consume them weekly) (Pocol et al. 2018). Meat consumption is revealed to be frequent, as students prefer chicken (28% consume it daily and 56% at least twice a week), followed by pork (11% daily and 41% at least once a week). Beef, fish, mutton and turkey are more rarely consumed. Although the consensus does not favour increased meat consumption, a preference for chicken proves awareness of the unwanted health effects associated with saturated fats in pork and beef, but caution should be exercised in the preparation of any meat, even lean assortments of chicken and fish. Seafood consumption is limited in the majority of respondents, as it is considered a delicacy in these countries, and there is no tradition in the consumption of these products (Pocol et al. 2018).

Unfortunately, processed meat-cold cuts are consumed by a significant number of respondents (14% consume them daily, while 37% at least once a week), adding to the unwanted health effects caused by meat consumption, due to the poor quality of raw materials used and the excessive content of fats and food additives.

Oil, particularly sunflower oil, is an integral part of Romanian, Bulgarian and Moldavian culinary tradition. It is consumed daily by 26% of respondents and at least once a week by 44%. Its omega fatty acid content is lost through refining or thermal preparation, and excessive consumption may

lead to cardiovascular diseases. Due to the exposure to other European countries' culinary traditions, the consumption of olive oil, a healthier oil alternative, has increased as 17% of the respondents consume it daily and 32% at least once a week. Nevertheless, its high-calorie and fat content should not be disregarded (Pocol et al. 2018).

Sugar consumption has proven to be the root for many health imbalances at physical and psycho-intellectual levels: insulin resistance, obesity, immune system conditions, cancer, aggressiveness and a decrease of intellectual abilities. The consumption of this high-calorie product aligns with the recent general worldwide trend of increased consumption (53% consume it daily and 28% at least once a week). This is amplified by the consumption of industrial or homemade sweets, for 45% of respondents who consume them daily and 79% who consume them at least once a week. Honey is also consumed by 20% of respondents daily and at least once a week by 32% as a sweetener (Pocol et al. 2018), but can be highly beneficial due to its high micronutrient content.

Compared to previously mentioned studies in Europe and globally, however, only 8% of the respondents consume fast food daily. However, if the 29% of weekly consumers are considered, alongside the high sugar consumption and the tendency to consume convenience pre-packaged and pre-cooked foods, the future trends in student food consumption are of the great concern for young people's health.

Besides, the study shows that 20% of students regularly use food supplements (Pocol et al. 2018). This proves either they are health-conscious or they signal the occurrence of deficiencies that they prefer to address through food supplement intake, rather than a change in diet patterns.

As for alcohol consumption, 5% consume alcohol (beer, wine) daily, while 20% drink at least once a week (Pocol et al. 2018). Needless to point out that alcohol consumption can lead to significant life-threatening health issues (liver conditions, cancers, stroke, violent behaviour) and to a deterioration in social relationships and academic performance. It can be assumed that student life involves excessive alcohol consumption predominantly at weekends, during parties.

Adding on to unhealthy eating patterns, carbonated sugary drinks, rich in artificial flavours and additives, are consumed by 42% of respondents (daily or weekly). This pattern amplifies the risk of obesity and works against sufficient water intake, highly necessary for optimal metabolic processes. Health awareness is shown to be on the rise, as students consume fresh fruit or vegetable juices (16% consume them daily, and 37% at least

once a week). Coffee is consumed daily by 50% of respondents, while energy drinks by 4% (Pocol et al. 2018). While coffee may represent part of a daily ritual, the consumption of energy drinks may be a symptom of an energy deficit due to erratic schedules, inappropriate nutrition and a demanding and unhealthy lifestyle. In the long term, it may lead to hyperglycaemia, palpitations and nervous exhaustion.

Food consumption patterns need to be complemented by an overview of student lifestyle and its association with food consumption. Problems may stem from one significant dimension revealed by the findings of this study, the lack of regular meals, as 54% declare they have no regular meals daily. This pattern detrimentally impacts on their digestion, and late meal times can lead to potential weight gain, metabolic disorders, lack of concentration, nervousness and even depression. This trend can be attributed to the overwhelming schedule, lack of rigour in terms of meal times (independence entails lack of parental control), lack of organization or time management skills.

Skipping breakfast is another indication of the irregular food consumption behaviour for 62% of the respondents who skip breakfast several times a week (Pocol et al. 2018). Students fail to provide the brain with resources needed for academic performance in the morning amounting to poor performance, low attention span, exhaustion and nervousness. Their reliance on coffee and energy drinks, high-calorie snacks (chips, biscuits or chocolate) is known to increase glycaemia and boost energy.

Breakfast is not the only meal respondents declare they skip. Different factors contribute to this pattern. About 27% of respondents skip meals to avoid weight gain (although regular healthy meals may tackle this), while 26% consider constant stress as the determinant factor in the lack of appetite and in skipping at least one meal. This last finding is consistent with the research conducted on Australian students (Papier et al. 2015) that found stress as the main factor in the students' inappropriate food choices. Others may skip meals in order to save money for other non-food related purchases (14% do it frequently, while another 34% more rarely), due to a challenging economic context they have to adapt.

Furthermore, in the era of media and technology, a third of respondents eat while in front of the television or using their phones, which contributes to the health issues as mentioned above. In truth, 77% of the respondents state that they regularly eat alone, although they live with their colleagues or families. Some retreat to eat, in order to virtually communicate with friends or family on their smartphones; some may blame

this preference on different schedules or convenience ready-to-eat food they consume on the go. However, one may wonder about a possible alienation of modern young individuals, as they paradoxically prefer to communicate via technology and the internet, rather than face to face. Eating alone may be associated with a better focus on healthy and correct eating (Herman et al. 2003), but conversely, it may be a sign of depression and metabolic syndrome when it is a frequent occurrence (Kimura et al. 2012; Kwon et al. 2018; Tani et al. 2015), as humans are naturally social beings, in need of constant direct communication.

Finally, in their assessment of healthy eating habits, 31% of respondents consider their diet to be healthy, while 24% assess their diet as not healthy or not very healthy. Students in Cluj-Napoca are the first to self-assess their lifestyle as healthy (34%), while students in Timisoara come last (19% assess their lifestyle as healthy) (Pocol et al. 2018). Their assessment relies on health maintenance (65%) and weight control (15%) considerations, which proves their interest in health prevention, as well as knowledge on the subject of healthy food and lifestyle. Thus, they can act as promoters for a healthy lifestyle among their peers, friends or family.

As for students who do not assess their food consumption behaviour as healthy, 57% blame it on the lack of time, the constraints of the student life, stress and the demanding schedule, while 11% consider the financial factor as predominant, particularly the unaffordability of healthy food, and 8% prefer unhealthy food because of the taste. In contrast, 5% are not in the least preoccupied with health-related aspects (Pocol et al. 2018). It is to be interpreted that the lack of time is not a valid argument, as there is a possible lack of education, and perhaps healthy lifestyle is not a priority that is worth changing certain habits of one's comfort zone. Economic inaccessibility, however, may act as a setback in improving students' food consumption behaviour, especially if they want to include ecologic products in their diets. Nevertheless, money invested in healthy eating might avoid possible health costs in the future.

20.6 CONCLUSIONS

On an overall basis, university students in this study display excessive consumption of refined carbohydrates (white bread, bakery products, industrial sweets), meat (including processed cold cuts, preserves) and unhealthy fats. Moreover, the predominant consumption of these foods

automatically decreases healthy food consumption—wholegrains and their variations, vegetables, pulses, fruits and nuts. An explanation may be found in the culinary traditions of these three countries, the abundance of processed food and the penetration of supermarket chains on their market after the 1990s. Additionally, it aligns to a generalized international trend of fast and cheap eating, purchasing foods that do not require lengthy preparation time, a trend of not cooking and saving time for other activities, opting for supermarkets as the first purchase option instead of small local businesses.

A decrease in the quality of food products prepared by student restaurants and cafeterias originates on the one hand in the economic conditions (menus need to be adapted to a low student budget and their purchasing power) and on the other hand in decision-makers' failure to build supply chains that include healthy local products. These factors have impacted on students' disorganized, irregular meal schedules. Lunch breaks are also absent from students' official university schedule, unlike Western Europe. However, international students who travel to these countries who have their healthy eating habits ingrained can adapt and often bring boxed home-cooked food. This is a practice that neither Romanian, Bulgarian, nor Moldavian students are accustomed to, who tend to purchase pastry products to replace lunch quickly. Therefore, one might conclude that financial or physical unavailability are not always the reasons for an imbalanced diet. Lack of preoccupation for a healthy lifestyle and their comfort may also partially explain this trend.

An education campaign is thus vital in promoting healthy nutrition and a healthy lifestyle. It may help students follow appropriate food consumption behaviour that would help maintain health and increase academic performance. Let us not forget that they are the parents of tomorrow who will educate their children accordingly, and this education will make a difference in the health of the future generation. In this respect, education for sustainable consumption is imperative.

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Associations Between Social Media Use and Loneliness, Body Image and Disordered Eating: A Qualitative Study of British Young Adults

Bianca Fox

21.1 INTRODUCTION

Decades of research have focused on analysing the effects of media exposure on health and well-being with contradictory and inconclusive results. As more people worldwide are becoming active Internet and social media users every year (see Kemp 2020), a burgeoning interest in examining if and how the media effects theories apply to social media has emerged.

The enhanced online connectivity doubled by increased use of mobile technology has generated numerous individual and societal benefits but also many shortcomings. Indeed, social media has brought more people together from around the world than any other Internet activity, but its popularity has been somewhat shadowed by claims that its excessive use can lead to various physical and mental health problems. Despite the

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countless advantages of using social media, including social support (LaRose et al. 2001), or a feeling of perceived belonging (Seabrook et al. 2016; Mackson et al. 2019), most research to date tends to emphasise the potentially negative consequences associated with frequent or excessive social media use. These include, for example, addictive or problematic use (Blackwell et al. 2017), anxiety and depression (Seabrook et al. 2016; Vannucci et al. 2017; Shensa et al. 2018), weight or shape concerns and increased risk of body image issues and eating disorders (Tiggemann and Slater 2013; Mabe et al. 2014) or frequent social comparison (Seabrook et al. 2016).

While it is a documented fact that images promoting unattainable beauty ideals of incredibly thin women are a daily occurrence often disseminated through traditional and new media outlets alike (Tiggemann and Zaccardo 2011), social media is believed to exacerbate the effects of these images on users (Andsager 2014) and strongly influence their perception and understanding of beauty (Mills et al. 2017). Moreover, it is believed that images promoting a strict fitness regime and food deprivation have also found their way to social media and subsequently can reach anyone, often contributing to the perpetuation of body dissatisfaction and a risk of developing an eating disorder (Bair et al. 2012) from a very young age.

Drawing on a cluster of theories on the effects of social media on body image and eating disorders and the social repercussions of Internet use, this chapter examines the link between the use of social networking sites (SNSs) and loneliness, poor body image and disordered eating in young British people (aged 18–24). The chapter starts with an exploration of the link between loneliness, poor body image, eating disorders and social media use through a brief review of the existing theoretical frameworks and then progresses to examine young adults' stories of loneliness through a qualitative approach, connecting these three conditions with the excessive and unchallenged use of SNSs. The results show that daily exposure to food images, thin bodies and unattainable lifestyles and fitness regimes on SNSs leads to self-comparison and pressure to conform to a distorted perception of the norm. One's inability to conform to this norm often results in increased loneliness, body dissatisfaction and disordered eating (progressing in some cases to eating disorders), followed by periods of digital detox.¹ Building on this and other findings, this chapter argues for an extension of Rodgers' (2016, 131) integrated theoretical model to include loneliness with a dual effect—as a predictor for social media use

and as an aggravating factor for those at risk of developing an eating disorder. Loneliness, therefore, was found to mediate the association between excessive SNS use, body image dissatisfaction and eating disorders.

From the start, it is imperative to provide conceptual clarification on the choice of terms used throughout this chapter. The term “disordered eating” is preferred over “eating disorders” to refer to an array of irregular eating behaviours that “may or may not warrant a diagnosis of a specific disorder” (Anderson 2018), such as overeating, frequent dieting or preoccupation with food and body image (see Anderson 2018). This choice was primarily dictated by the data reported here that did not allow identification of participants previously diagnosed with an eating disorder like anorexia nervosa or bulimia nervosa. Moreover, social media is a very broad term, thus a focus will be sustained on social networking websites, defined as a “web-based service that allows individuals to: 1) construct a public or semi-public profile within a bounded system, 2) articulate a list of other users with whom they share a connection, and 3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site” (Boyd and Ellison 2007, 211). Although two terms (social network sites and social networking sites) are used interchangeably in the literature, this chapter employs the term “social networking sites” to emphasise the networking possibilities facilitated by these websites. Finally, it is equally important to note that the purpose of this chapter is to neither negate nor dismiss the benefits of using social media. On the contrary, in light of recent research (e.g. see McLean et al. 2017; Mackson et al. 2019), this chapter makes a case for loneliness prevention and risk elimination through social media literacy interventions.

21.2 EXPLORING THE LINK BETWEEN SOCIAL MEDIA USE AND LONELINESS, POOR BODY IMAGE AND DISORDERED EATING

In an era that calls for social connectivity, loneliness has become more prevalent than ever. Only in the UK, over 9 million people consider themselves always or often lonely (Kantar Public 2016). Year 2019 saw a rise in loneliness everywhere in the world followed by a newfound scholarly interest in detection, prevention and treatment interventions. With 83% of 18–24 year-olds feeling often, always or sometimes lonely (ACEVO

2015), Great Britain became the first country to appoint a Minister for Loneliness to oversee the eradication of this modern phenomenon.

Loneliness is a universal emotion, and it is often described as “an enduring condition of emotional distress that arises when a person feels estranged from, misunderstood, or rejected by others and/or lacks appropriate social partners for desired activities, particularly activities that provide a sense of social integration and opportunities for emotional intimacy” (Rook 1984, 1391). Numerous studies have found that loneliness affects the quality of life (Shiovitz-Ezra et al. 2009), life satisfaction (Fiori and Consedine 2013), well-being (Chen and Feeley 2014) or self-esteem (Güloğlu and Karairmak 2010; Yaacob et al. 2009). Furthermore, loneliness has long been established to increase vulnerability to an addiction (Nikmanesh et al. 2015; Bozoglan et al. 2013) and is typically associated with addictive behaviour (recently, technology-related addiction) such as Internet addiction (Özdemir et al. 2014; Sharifpoor et al. 2017), smartphone addiction (Bian and Leung 2014; Jiang et al. 2018; Tan et al. 2013) or food addiction (Tatsi et al. 2019). In addition, loneliness is considered a predictor of unhealthy eating behaviours or eating disorders (e.g. see Mason et al. 2016; Levine 2012; Southward et al. 2014; Rotenberg and Flood 1999).

Up-to-date academic literature on the social and health repercussions of Internet use is dominated by a dualistic approach and is fragmented by highlights and challenges alike. While some studies warn against excessive Internet use (e.g. Nie 2001), others praise its beneficial effects on social capital (Ellison et al. 2007; Steinfield et al. 2008), social support (LaRose et al. 2001), well-being (Valkenburg and Peter 2007) and loneliness (Fokkema and Knipscheer 2007). Overall, it remains largely unclear what the actual effects of Internet and social media use are on individual well-being. Nonetheless, more recent studies consider loneliness to be a determinant of how people interact with the digital technologies (Nowland et al. 2017), meaning that the lonelier people are, the more likely they are to overuse social media. It is therefore not Facebook, Instagram or Twitter which make people feel lonely; rather it is lonely people who turn to the use of these social networking sites for comfort (Song et al. 2014) and enhanced social interactions.

Extensive research has resulted in several theoretical frameworks being frequently used in the literature to conceptualise the effects of media (and social media) on body image and eating disorders (for a review, see Perloff 2014 and Rodgers and Melioli 2016). Some of these theories assign central importance to the media and its ability to convey and spread

messages related to appearance that are internalised by individuals (such as Social Cognitive Theory, Sociocultural Theory or (Self-)Objectification Theory), while others focus on one's desire to gain social acceptance by conforming to certain appearance ideals (such as Impression Management Theory or Social Identity Theory).

Both Albert Bandura's (1986, 2009) Social Cognitive Theory and Sociocultural Theory (see Thompson et al. 1999 and Rodgers 2016) assign significant importance to the media and argue that media and other social agents (family, friends, colleagues) contribute to spreading messages that promote a contemporary acclaimed beauty ideal. It is believed that through frequent consumption of media messages, these beauty ideals are internalised by media consumers, which generates appearance comparison and a strong desire to conform to them (Brown and Bobkowski 2011; Thompson et al. 1999) no matter how unrealistic they may seem. Furthermore, constant self-comparison to these ideals and the perceived discrepancy between the media-ideal and one's appearance is considered to generate body dissatisfaction, leading to a risk of developing eating disorders (Bearman et al. 2006; Thompson et al. 1999). In contrast, Gratifications Theory, also commonly used in the literature, assigns central importance to the individual and empowers media consumers by positing that they have the power to choose and tailor their media outlets to their needs.

(Self-)Objectification Theory advances the idea that in contemporary image-centric societies women are frequently being evaluated for their appearance. This theory suggests that, as a result of daily media dissemination of messages focused on appearance, both women and men have stopped being treated as entities and are increasingly being seen and thought of only as "bodies" (Fredrickson and Roberts 1997). Moreover, the pervasiveness of appearance-related and sexualised media content is believed to trigger self-objectification through individual internalisation of beauty ideals (Karsay et al. 2017). Feminist theoretical perspectives on objectification also advance the idea that Western societies, in particular, tend to focus on female appearance as a way to control and disempower women (Brown 1989).

Impression Management Theory suggests that social acceptance acts as a motivator for some individuals to control their image by portraying themselves in a way that is believed socially accepted or appealing. Furthermore, according to Higgins (1987), the gap between what is portrayed (the constructed self) and reality (the actual self) is often perceived

by individuals as a failure, subsequently resulting in low self-esteem, increased body dissatisfaction, eating disorders, anxiety, depression and other related behaviours that individuals resort to as a solution to decrease the previously identified discrepancy.

Similar to Impression Management Theory, Social Identity Theory focuses on social acceptance and a sense of belonging to a particular group. This theory proposed by Tajfel (1978) and refined in later studies (see Tajfel and Turner 1979) argues that individuals' desire to belong to a particular social group often prompts them to engage in unhealthy social comparisons (with other social groups, "us" vs. "them" dichotomy) and rely on stereotypical characteristics (promoted within their group) as means of maintaining positive social identity.

In an attempt to find a theoretical model that accurately describes the complex relationship between Internet and social media use and body image and disordered eating, Rodgers (2016) proposes an integrative framework based upon five of the theoretical frameworks described above: Sociocultural Theory, Self-Objectification Theory, Impression Management Theory, Social Identity Theory and Gratifications Theory. This integrated theoretical model comprises some of the useful aspects of each theoretical framework, acknowledging and eliminating their limitations, and is based on three levels of Internet usability: low, moderate, or heavy (Rodgers 2016; see Fig. 21.1). The model is, therefore, contingent upon the way in which individuals may use the Internet and social media, as follows:

- Some may use the Internet as an impersonal tool that does not typically involve online interaction with others.
- Others may use the Internet as a social platform that enables them to create and share content online usually through the use of SNSs.
- A third category of users may use the Internet as a participatory platform that allows them to join and participate in group discussions and online communities (like pro-eating disorder communities). According to Rodgers (2016, 132), this "type of Internet use may be related to the most severe forms of eating disorders, but may also be associated with the greatest protective factors among online communities promoting positive body image and healthy eating attitudes."

The connection that this chapter makes is that excessive SNS use is associated with feelings of loneliness that lead to overeating or comfort eating and a poor body image generated by the constant self-comparison

with other people online. Although there is voluminous literature on the effects of social media on body image and eating disorders (e.g. see Tiggemann and Slater 2013; Cohen and Blaszczyński 2015; Holland and Tiggemann 2016), there are only a few studies on loneliness and eating disorders (Pritchard and Yalch 2009; Lasgaard et al. 2011; Levine 2012; Sidani et al. 2016) or loneliness and body dissatisfaction (Zinovyeva et al. 2016) and no studies connecting all these conditions with the excessive use of SNSs. In addition, so far research analysing the effects of social media use on body image or eating disorders has primarily focused on one platform, Facebook (e.g. see Cohen and Blaszczyński 2015; Song et al. 2014; Stronge et al. 2015), with little published research on image-based platforms, such as Instagram (Cohen et al. 2017) or Snapchat. This chapter aims to address this gap in the literature by including in the analysis five SNSs (Facebook, Twitter, Instagram, Snapchat and TikTok) and argues for an extension of Rodgers' (2016, 131) integrated theoretical model to include loneliness as a predictor for social media use and as an aggravating factor for those at risk of developing an eating disorder.

21.3 METHOD

The overriding aim of this chapter is to find a working theoretical model to explain and analyse the effect of excessive social media use on loneliness, body image and disordered eating. As such, existing models had to be tested and adapted. Based on the results generated by a qualitative analysis of data generated by 241 participants, Rodgers' (2016, 131) integrated theory model was adapted to include loneliness as a motivator for excessive SNS use but also as an aggravating factor of body dissatisfaction and eating disorders symptoms (see Fig. 21.1).

Data for this project were collected using an online questionnaire that generated 1400 responses (49% women and 51% men) from people aged 18–24, living in the UK (see Table 21.1). Incomplete responses were removed, which resulted in a total of 1343 valid responses. In addition to contacting major local employers and student unions, and posting a link to the survey on the University of Wolverhampton's website, participants were also recruited via Facebook, Twitter and Instagram. The online questionnaire included open and closed questions and used the 6-item De Jong Gierveld's loneliness scale (De Jong Gierveld and van Tilburg 2006) to measure participants' levels of loneliness (see Table 21.1).

Table 21.1 Characteristics of the total sample

<i>Variables</i>	<i>N</i>	<i>%</i>
Total sample	1343	100
Gender		
Men	688	51
Women	655	49
Loneliness levels measured by the short 6-item De Jong Gierveld’s “Loneliness Scale” (De Jong Gierveld and Van Tilburg 2006)		
<i>Score</i>	<i>Frequency</i>	
	<i>N</i>	<i>%</i>
No loneliness	500	37.2
1	150	11.3
2	80	5.9
3	95	7.1
4	167	12.4
5	110	8.2
Severe loneliness	241	17.9

To revise Rodgers’ (2016, 131) integrated theoretical model, data selected for this chapter are from 241 participants that reported high levels of loneliness (see Table 21.1). Incidentally, these participants also reported excessive use of social media of 7–12 hours or more daily (see Table 21.2). Responses to the questionnaire’s open questions were analysed using NVivo 12.5 (QSR International), and thematic analysis was employed to interpret the data, which allowed for the discovery of “patterns or themes within qualitative data” (Maguire and Delahunt 2017, 3352). In analysing the data, Braun and Clarke’s (2006) guide was followed, consisting of six phases: becoming familiar with the data, generating initial codes, searching for themes, reviewing themes, defining themes and writing-up.

All participants reported being avid Internet users, having access to the Internet both at home and at work/university and having used social networking websites for more than ten years. Moreover, all participants are social media users and use social networking sites, with 93% having used social networking sites for more than ten years. Facebook remains the preferred SNS, followed by Instagram, Twitter, Snapchat and TikTok. The most popular device to access social networking sites is the smartphone, with 93.4% of the respondents using it to access their SNSs accounts, while 58.9% use laptops (see Table 21.2).

Table 21.2 Characteristics of the sample included in the analysis

<i>General characteristics of the sample</i>		
	<i>N</i>	<i>%</i>
Total sample	241	100
<i>Demographics</i>		
<i>Age</i>		
18–24	241	100
<i>Gender</i>		
Women	153	63.5
Men	88	36.5
<i>Internet and social media use</i>		
<i>Frequency of Internet use</i>		
More than 10 hours/day	101	42
5–10 hours/day	85	35.3
I'm always online	55	22.7
<i>Social networking sites (SNSs) use</i>		
Facebook	175	72.6
Twitter	110	45.6
Instagram	139	57.7
Snapchat	93	38.6
Tik Tok	58	24.1
<i>Frequency of SNSs use</i>		
7–12 hours/day	153	63.5
All the time (more than 12 hours/day)	88	35.5
<i>Devices used to access SNSs</i>		
Smartphone	225	93.4
Laptop	142	58.9
I-Pad	37	15.4
Tablet	30	12.4
PC	8	3.3
<i>Motivation to use SNSs</i>		
Loneliness/to fill a void	208	86.3
The need to belong and feel part of a community	191	79.3
To make friends	158	65.6
To keep in touch with friends and family	139	57.7
To find out news/information	107	44.4
For professional and/or business contacts	59	24.5
Leisure and entertainment	50	20.7
<i>Number of friends on SNSs</i>		
More than 1000 friends	87	36.0
500–1000 friends	86	35.6
200–500 friends	68	28.2

21.4 RESULTS

Results show that overall young people have an open-minded approach to using social networking sites (SNS) and are aware of their pretended reflection of reality. To explore the relation between SNS use, loneliness and disordered eating behaviour (emotional eating, body dissatisfaction and bulimic symptoms), an understanding of what young people perceive as loneliness was required. Therefore, the first theme identified in the data captures young people's attempts to define loneliness and its prerequisites. The second theme explores the association between young people's over-exposure to food images, unrealistic fitness regimes and thin bodies on SNSs and loneliness, emotional eating and body dissatisfaction. The third theme explores young people's attempts to avoid social comparisons and exposure to unrealistic lifestyles and appearance ideals by temporarily or permanently disconnecting from SNSs (digital detox).

21.4.1 *Young Adults' Stories/Understanding of Loneliness*

Participants commonly articulated that loneliness means feeling isolated and not having someone to talk to. Being isolated is the first thing young people think about in relation to loneliness.

Some people think it's sadness, others think it's depression. To me I guess loneliness is feeling like no one is available to you and a sense of isolation within yourself. // Feeling isolated as if I am nobody's first choice to hang out with. Basically, feeling isolated to the world, unwanted and unappreciated. (Woman, 23)

Feeling isolated, with no one you can properly communicate with. // You could be around people yet not engaging with them in a meaningful way. So, I guess that leads to a feeling of sadness when you're unable to talk to people and be accepted by them. (Man, 24)

This feeling of isolation reported by the respondents is also perceived as a continuous never-ending feeling, loneliness being identified as a situation that people who experience it cannot escape from.

A feeling of being isolated from others. Feeling that you are alone in the world, with nobody to share experiences with or turn to for help. And a possible added feeling that you cannot exit your loneliness, that there is an

invisible barrier between you and the rest of the world that you can't cross so even if you are craving for the company of other people, you are not able to see or talk to them, you are not able to reach out to them nor are you able to ask for help. (Man, 21)

Furthermore, loneliness is also associated with a sense of dissatisfaction with one's existing social relationships:

I guess loneliness is when you are not feeling happy with the connections you have. Not having many friends, feeling isolated and not being able to socialise. (Woman, 19)

The lack of human companionship (particularly family or friends) or meaningful face-to-face interactions is perceived as increasing loneliness.

I feel lonely when I am by myself and when I am by myself I overthink everything, you know? (Man 21)

To me it's the physical presence of people. I always feel lonely in the evening in my room when I am by myself, it makes me feel like no matter how much I try during the day to reach out to people, I am still very lonely. (Woman 20)

Loneliness is also perceived as a feeling of disconnection from community and a lack of belonging. This lack of belonging often leads to excessive social media use that ultimately results in increased loneliness when one becomes aware of the discrepancy between online and offline social relationships. Furthermore, becoming aware of the discrepancy between the number of online friends and real friends generates feelings of loneliness.

To me loneliness is a lack of companionship or a sense of belonging. // It's when you have people around but you don't feel like you belong anywhere, you know? // You feel like no one cares about you and you don't really fit in and that's when you start being more active on social media // you see it as a safe place when you can belong to a community even if it's an online community and you'll never meet those people in person. // In a way it's a vicious circle, because when you realise that these people are not part of your real, offline life, you feel even lonelier.... (Man, 20)

Some people live a false life through Instagram, giving false representations of themselves and their lifestyle. Looking at pictures online of people's

perfect lives and perfectly shaped bodies make me feel isolated. That's when I realise that I actually don't know these people that are my online friends, but I have no real friends to turn to either. (Man, 21)

21.4.2 Overexposure to Appearance-Related Images Coupled with Peer Feedback on SNSs Often Trigger Loneliness, Emotional Eating, Body Dissatisfaction and Bulimic Symptoms

Results derived from the data show correlations between exposure to appearance-related images and posts on SNSs and loneliness and disordered eating behaviours (mainly body dissatisfaction, emotional eating and bulimic symptoms). Moreover, the exposure to unrealistic fitness regimes and beauty ideals corroborated with peer feedback on SNSs exerts a constant pressure to conform to body ideals disseminated via SNSs. The prevalence of food images and thin bodies and the promotion of quick fixes through plastic surgery lead to constant pressure among young adults and self-comparison with others that have a two-folded result: 65% of the participants declared that this resulted in emotional eating and feelings of anxiety, body dissatisfaction and impossibility to reach the desired body ideal, whilst 45% reported to take time away from social media in search of brief periods of positive loneliness. According to Fromm-Reichmann (1959), positive loneliness is a form of voluntary loneliness and refers to a self-induced temporary period of solitude, which is valued for its constructive potential, especially when used for creative work or reflection.

I am trying not to look at these images on Instagram anymore because I can't look at them. // They are perfect and these images are everywhere. There's a constant pressure to look perfect. It does make you feel like you will never be as attractive as them and therefore you're not worth the attention of others and this is an alienating feeling. (Woman, 22)

People portray a perfect body image on social media, and even if you know that those photos may not be real, they still make you think you need to do something about your body. // It is too much, and it makes you think you need plastic surgery. I've seen on Instagram girls as young as nine think that something is wrong with their body. (Man, 21)

Increased loneliness generated by constant self-comparisons causes emotional eating followed by guilt and search for quick solutions. Eighty per

cent of the participants reported to follow social media influencers and be part of online communities that promote weight-loss and thin bodies. Moreover, 91% reported to be overwhelmed by the amount of food images posted online which often makes them compare their lifestyle to others and feel a sense of disconnection and loneliness. Eighty-five per cent reported that watching others eat or seeing food images as well as following people who promote various diets has often resulted in increased feelings of isolation followed by episodes of disordered eating.

I've often found myself overeating because I get really anxious when I see people posting photos of delicious food. // It makes me think "Why can they eat everything they want and still have a perfect body?" (Woman, 21)

I often find comfort in food. You are bombarded with messages, and you get into following who likes or dislikes what you're posting every day and you start questioning your life and then you think ... well, I can't look like this bloke, but at least I can enjoy food, I have food to comfort me. (Man, 23)

In some cases, emotional eating generated a feeling of guilt, resulting in increased loneliness, body dissatisfaction and bulimic symptoms. Thirty-two per cent of the respondents reported always or often feeling guilty and alone after experiencing recurrent episodes of overeating triggered by overexposure to appearance-related content on SNSs. This guilt was associated with the fear of becoming fat and unattractive.

The pressure it's just too much. // So, I logout from all my socials for the day and find comfort in food but then I feel guilty about eating too much and I see myself getting fat and that's when I get anxious again because I don't know how to undo all the eating // It can make you feel very lonely because it's embarrassing and you don't want anyone to know, and this is how I ended up vomiting almost every day. I'm over it now but I am not looking at these pictures on social media anymore, nor am I following any influencers or seeking approval from friends ... I just try to stay away. (Woman, 21)

It's a feeling of guilt that takes over, and if you happen to see your friends posting a picture of them working out in the gym, you feel ashamed and you suddenly feel fat and unattractive and you feel you have to do something about it quick, before it becomes visible. (Man 23)

Likes and peer feedback are being closely monitored daily by young people, a high number of likes being perceived as a success and contributing to one's enhanced self-esteem. In contrast, the pervasiveness of negative or mean comments leads to enhanced social isolation and desire to quit social media.

The constant competition for likes makes you check your Instagram and Facebook a million times a day. I don't know, it's something we all do. If your picture doesn't get liked and nobody comments on it, then you feel sad and isolated; it's like nobody cares that you lost weight. (Female, 21)

What people say about your posts and pictures is important. They all seem to have better lives than me, so it's important to hear what they have to say. Reading negative comments from other people can make you feel very isolated. (Man, 22)

I hate looking up to people and thinking "I wish I had that." It makes me ungrateful, and not notice what I already have. I quit social media for a month and felt so much happier, but it was challenging to stay involved with things. (Man, 19)

21.4.3 The Need for Frequent Digital Detox and Positive Loneliness

Despite its acknowledged usefulness, almost all participants have considered, at least once, deleting all of their social media accounts. In fact, 80% of them reported to having deleted at least one social media account in the last six months. The most frequent reason to deactivate their SNS accounts was the need for digital detox and positive loneliness.

I periodically quit social media just because on Instagram I can get a bit carried away by what people are posting. // I hate this constant pressure to look in a certain way. A detox did me good, and I was also productive in the time I wasn't on the app. (Man, 22)

I have deactivated all my social networks before to take a break and focus on myself without having to always compare myself to other women online. Now I don't need to because I don't use it as often as I used to. // I mainly browse for entertainment now. (Woman, 24)

Yes, social media can sometimes project only the best moments of a person's life, and reality gets distorted. With constant posts about how you look, what to buy, it can promote things that are not obtainable, (material things and relationships) to some, therefore causing isolation etc. (Woman, 18)

People bother me a lot, asking for things, so I deleted my Facebook account. Also, I don't like all of the fairness online with people caring so much about their appearance. They are narcissistic and vain and it's becoming a real problem with the younger generations. (Man, 24)

Quitting SNSs is always temporary. Eighty-five percent of the participants reported relapsing after a few weeks or a month of non-use because using SNSs is something a young person is supposed to be seen doing, and not being on SNSs equates to not being seen, which also leads to increased loneliness and the feeling that one is missing out on something.

I guess it's our generation; we make stories in our heads. I don't know half of the people I befriended on Facebook, but it is a trend to have as many friends as possible. It's about popularity. You must have thousands of followers but never talk to them, and most of them don't know you either. // I want to delete my social media apps because it gets too much, it is so much damaging content and you think it's not affecting you but it builds up over time. You need a break, but you can't stay away from it too long. After a while you feel lonely without your online friends, feel you're missing out on things. (Man, 21)

However, results also show that using SNSs in a creative and meaningful way is considered to be a solution to help reduce loneliness. Young adults consider SNSs to be a necessary evil and think more should be done to educate younger generations on how to make sense and dispose of them in innovative ways, enhancing healthy social interactions.

Everyone is so busy working that we don't have time to talk to each other anymore. Mentally to talk to people is getting harder and harder. It's good that the new technologies have come in but we shouldn't over-use them, they should not replace face-to-face communication. People should be thought how to use new technologies to improve their lives. (Woman, 24)

21.5 DISCUSSION

In line with previous studies (Song et al. 2014), the results of this research indicate that nearly 90% of the participants list loneliness as a motivation to use social media (SNSs in particular—see Table 21.2). SNSs are not seen as a friend; instead they are seen as a temporary solution, as a sort of helpline where one can always find someone willing to talk to (even if sometimes that is not the person one actually needs). At the same time, consistent with previous findings (see Grieve et al. 2013; Allen et al. 2014), results show that SNSs are considered a valuable tool for peer support, that makes young adults feel they belong to a community. However, left unchallenged SNS use can have the opposite effect to what the user believes it is providing them, resulting in increased loneliness, body dissatisfaction, emotional eating and a risk of developing eating disorders.

Results agreed with previous scholarly work in identifying a strong link in the association between excessive SNS use and unwanted social comparisons that make young people believe that others live better lives (Vannucci et al. 2017), as opposed to their life that is perceived as unfair (Chou and Edge 2012), unsuccessful and less adventurous. The results confirm that appearance self-comparison often leads to body dissatisfaction (also found in Fardouly et al.'s 2015 study), emotional eating and constant search for quick fixes (such as binge eating and purging or plastic surgery). Moreover, results recorded a high comparative rate between young adults' constant exposure to images promoting fitness regimes and healthy diets and increased body dissatisfaction (in agreement with, e.g., Tiggemann and Zaccardo 2015).

Similar to Perloff (2014), this chapter argues that social media is just a tool, and the simple “exposure to social media or to Facebook-instigated social comparisons with thin, attractive friends will not lead to body dissatisfaction” (Perloff 2014, 367) or loneliness and a risk to develop eating disorders. Instead, it is a series of psychological factors associated with the excessive use of social media that leads to extreme vulnerability to appearance-related posts, images or peer comments. The discrepancy between what is shared or experienced on social media and one's own life was identified to trigger feelings of social isolation. Individuals feel they do not belong in their online community and try to reach out and find satisfaction in offline relationships where people place less importance on appearance (or at least is not that obvious that people care about appearance).

Results also show that loneliness, body dissatisfaction and disordered eating have in common a perceived deficit in relationships, usually generated by an ideal that cannot be attained. These three conditions influence each other reciprocally. One's dissatisfaction with the quality of social relationships is believed to lead to low self-esteem and overeating/emotional eating. In this case, food "takes on an emotional quality and is used to numb feelings, including that of loneliness" (Levine 2012, 243). Moreover, eating replaces the social relationships that one cannot have or find in life. The fact that individuals tend to eat more when they are sad or lonely is not new; previous studies, such as Rotenberg and Flood (1999), found that individuals who experience loneliness consume more food than those who do not. Emotional hunger leads to body dissatisfaction and a risk to develop eating disorders. A feeling of guilt takes over after overindulging episodes that makes individuals resort to easy fixes, the most common being bulimic symptoms which in time can lead to the development of an eating disorder. At the same time, eating disorders once developed also generate isolation and increased loneliness (Treasure et al. 2011).

Building on the above results, this chapter argues for broadening Rodgers' (2016, 131) integrated theory model to include and acknowledge the importance that loneliness plays in the relation between SNS use, poor body image and eating disorders. The revised version of Rodgers' (2016, 131) model includes loneliness as a motivation for both excessive SNS use and temporary periods of digital detox. At the same time, the adapted model links online exposure to weight-related content, thin-body ideal and peer feedback to emotional eating and increased loneliness or positive loneliness. This updated model is informed by the results of the above analysis and is only valid in the case of excessive social media use and exposure to negative peer feedback online (see Fig. 21.1).

21.6 LIMITATIONS

There are several limitations that may have influenced the results of this study. First, the data were collected using an online questionnaire which limited significantly the number of open questions that were included in the questionnaire design. However, the use of an online questionnaire had its advantages as it allowed participants to report their experiences of loneliness and struggles with poor body image and eating disorders more accurately and sincerely. Second, using a self-reporting loneliness measure

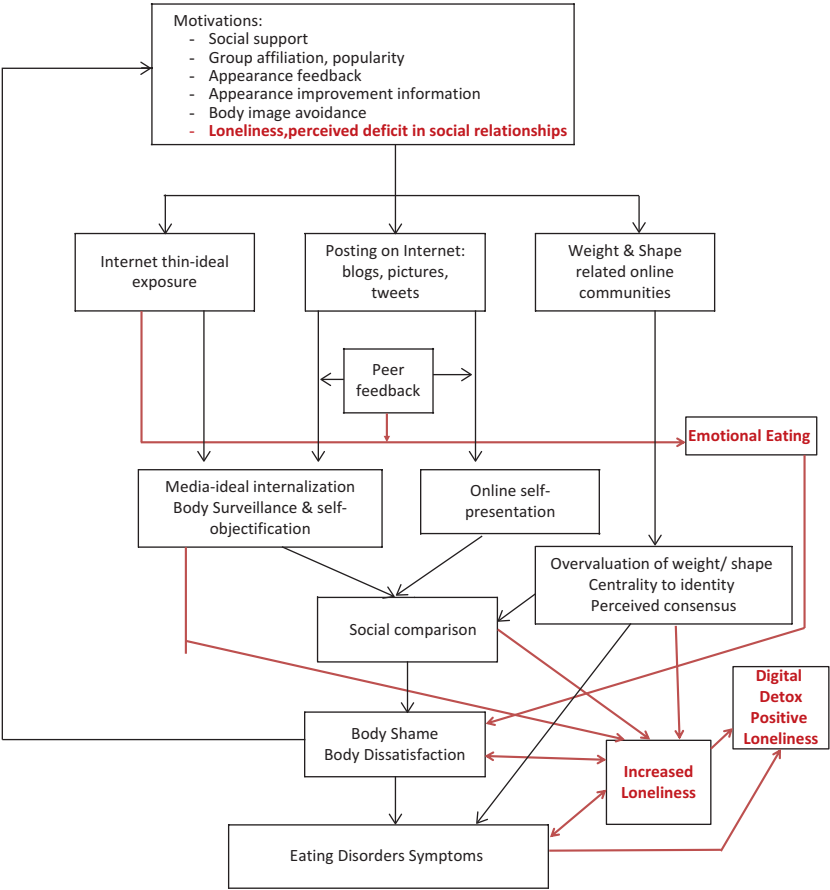


Fig. 21.1 A proposed revised integrated model of the influence of the Internet on body image concerns and eating pathology (adapted from Rodgers 2016: 131)

coupled with the cross-sectional nature of the study limits the ability to generalise the findings.

Despite these obvious limitations, there are several ways our findings can inform future research. First, this chapter suggests that loneliness may be a mediator in the relation between SNS use, body image and disordered eating but also a motivation to use SNSs. Future research should

explore this relation further and help inform novel approaches to protect users from harmful appearance-related content on SNSs (such as pro-anorexia images).

Second, the chapter proposes an updated integrated theoretical model for excessive use of social media that could inform a novel targeted support strategy. More focused efforts to understand the effects of SNS use on loneliness, body image issues and eating disorders could contribute to better social media literacy programmes for young people.

21.7 CONCLUSION

This chapter explored the link between SNS use and loneliness, poor body image and disordered eating in young British adults. The chapter argued for an expansion of Rodgers' (2016, 131) integrated theoretical model to include loneliness as a predictor for social media use and a mediator in the relation between SNS use, body image and eating disorders.

Future studies utilising a mixed-method research design that allows statistical correlations may wish to investigate this issue further for a more nuanced understanding of the effects of social media on loneliness, body image issues and eating disorders. Furthermore, although some social media literacy interventions to reduce the risk of body dissatisfaction and eating disorders have started to emerge (e.g. see McLean et al. 2017), future research should concentrate on piloting, testing and developing more social media literacy intervention programmes for young people.

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NOTE

1. Digital detox is used to refer to a period of time when an individual decides to refrain from using social media websites by deleting all or some social media accounts.

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Relationship Between Self-Regulated Eating Behaviour and eHealth Literacy. A Confirmatory Factorial Analysis

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22.1 INTRODUCTION

Problems derived from unsuitable eating habits are strongly related to several health disorders such as obesity (Dorling et al. 2019), alexithymia (Shank et al. 2019) and other disordered eating behaviours (Yoon et al. 2020). The healthy behaviour is recognized as key pieces of actions a person does that impacts well-being; they can be intentional or not, and it's a well-known mediator between personal health outcomes and environmental and structural factors such as diet, overweight or obesity (Short and Mollborn 2015; Mesas et al. 2012). Unfortunately, healthy habits do not change just by willing it; it requires the development of personal skills

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related to goal orientation and self-efficacy, which are a basic element of self-regulation abilities.

Self-regulation (SR) is an important study issue in health psychology. It has been studied in association with health behaviour change, healthy eating maintenance, disease prevention and management, and so on. Self-regulation has demonstrated to be a good predictor of intake in the short term and with weight control short and long term (Teixeira et al. 2015). Self-regulation refers to self-monitoring of one's behaviour, its determinants and its effects; judgment of one's behaviour with personal standards and environmental circumstances; and affective self-reaction—it also includes a self-efficacy mechanism, which plays a central role in the exercise of personal agency by its strong impact on thought, affect and motivation (Bandura 1991). Thus, in health, SR is considered as an ability to control behaviour in health maintenance (Heatherton and Wagner 2011).

This regulation of habits is widely supported by access to information through digital media such as the Internet, media which has demonstrated to be widely used in Mexico to learn about eating habits (Asociación de Internet MX 2018). Nonetheless, even having the information on the positive correlation with eHealth literacy and future balanced diet, this is a variable low considered in current studies (Britt et al. 2017). Thus, the evidence related to healthy eating behaviour and eHealth literacy is limited and inconsistent. The eHealth literacy implies the abilities to search, analyse and use health information, obtained through the Internet, to maintain health or to address illness, and this evolves with the uprising of new technologies (Norman and Skinner 2006a) to also imply knowledge development to improve confidence in the decision-making process focused on habits and lifestyle conditions (Nutbeam 1998).

According to the above mentioned, this study addresses the gap of acknowledging the specific components of the relation between self-regulation, eHealth literacy and the positive impact in positively eating behaviours in young people.

22.2 METHODS

22.2.1 *Sample*

The Bioethical Committee of the Faculty of Medicine and Psychology of the Autonomous University of Baja California approved the investigation. A number of 23 universities were invited to participate in the study, and

only 7 agreed. The sample ($n = 1057$; 65 per cent female, age average = 19.93) was obtained with a proportional stratified sampling dependent on the total matriculated students per college. Each person received an informed consent to participate and then proceeded to answer the eHealth Literacy Scale (eHEALS) and the self-regulated eating habits (SEH) scale.

22.2.2 *Instruments*

22.2.2.1 *eHealth Literacy Scale*

The eHEALS (Norman and Skinner 2006b) is composed of eight items with a five-point Likert scale, from one (never) to five (always). This study used the three factors version: skills (eHLS), awareness (eHLA) and evaluation (eHLE) (Sudbury-Riley et al. 2017; Hyde et al. 2017).

22.2.2.2 *Self-Regulated Eating Habits*

This test developed by Campos-Uscanga et al. (2015) contains 14 items with a 5-point Likert scale, from 1 (strongly disagree) to 5 (strongly agree); the questions are divided into three subscales: self-observation (SEHSelf-observation), self-restriction (SEHSelf-restriction) and self-evaluation (SEHSelf-evaluation).

22.3 RESULTS

The descriptive for the eHEALS and the SEH scale showed values ranging in value three. This means medium values for each subscale.

22.3.1 *Confirmatory Factor Analysis*

The Confirmatory Factor Analysis (CFA) is a technique that seeks to confirm if the number of factors (constructs) and the loadings of observed variables (indicators) conform to what is expected based on the theory (Malhotra et al. 2007). Before the calculation of correlation indices between eHealth literacy and the self-regulation of eating behaviour, we conducted a CFA for each instrument to determine the goodness-of-fit in a Mexican sample.

Several authors have determined that for large samples, the chi-square statistic is extremely sensitive statistical tests and not a good option to test

model fit. For this reason, this study examined the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Root Mean Squared Error of Approximation (RMSEA) and the Standardized Root Mean Square Residual (SRMR). The estimator used for the CFA was the diagonally weighted least squares (DWLS).

For eHEALS acceptable model fit is suggested by $CFI = 0.996$, $TLI = 0.994$ and $RMSEA = 0.076$, while $SRMR = 0.037$ showed good fit. For its part, the SEHmodels showed acceptable model fit suggested by $CFI = 0.979$, $TLI = 0.975$ and $SRMR = 0.085$, while $RMSEA = 0.037$ was acceptable. The reliability of each scale and subscale of the eHEALS and the SEH questionnaires were determined to calculate the alpha and omega values obtained acceptable values between 0.74 and 0.91. Statistical analyses were conducted using R 3.6.2 for Windows.

22.3.2 *Correlation Between eHealth Literacy and Self-Regulated Eating Habits*

Pearson's product-moment correlation matrix was computed to determine the correlation between the eHEALS and SEH questionnaires. To achieve the condition of normality distribution of data for the Pearson's tests, values were transformed using the log10 using the SPSS software. Results showed that eHealth literacy is significantly correlated with self-regulated eating behaviours. Particularly, eHLS is significantly correlated with SEHSelf-restriction ($r = .254$), SEHSelf-evaluation ($r = .205$) and SEHSelf-observation ($r = .265$). Results showed that the eHLA is significantly correlated to SEHSelf-restriction ($r = .274$), SEHSelf-observation ($r = .206$) and SEHSelf-evaluation ($r = .214$). Finally, eHLE was significantly correlated with SEHSelf-restriction ($r = .273$), SEHSelf-observation ($r = .194$) and SEHSelf-evaluation ($r = .222$).

22.4 DISCUSSION AND CONCLUSION

The current research has demonstrated that the eHEALS and the SEH scale are adequate instruments to evaluate eHealth literacy and self-regulated eating habits in the analysed population which could be very useful for future studies that agree with results about eHEALS and SEH in another context (Nutbeam 1998).

Based on the correlation analysis, reporting medium levels of eHealth literacy was associated with average values in the self-regulation of eating

behaviour in line with Britt et al. (2017). Pearson's values indicated a significant correlation. It seems feasible to consider the evaluation of instruments and the development of programmes implementing eHealth literacy to foster the development of SEH to decrease problems associated with inadequate eating behaviours (Instituto Nacional de Salud Pública 2013).

In conclusion, this study allows the consideration of the two variables low esteem in the research of health habits, considering that people are spending much time in online media, bridging the gap between the necessity of development of digital skills to positively use the media in the creation of better eating habits.

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