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Sustainability of well-being through literacy.

The effects of food literacy on sustainability of well-being

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Abstract

Health literacy is a “magic word” among both scholars and practitioners. In general terms, it indicates the ability to collect, process, and understand basic health information to properly navigate the health system and enhance well-being. Food literacy is conceived as a set of skills which is strongly related to health literacy, concerning the convenient use of food. Notwithstanding, to the knowledge of the Author, until now food literacy has been poorly discussed by the scientific and professional literatures as a key determinant of sustainability of well-being. This paper is aimed at providing several insights about the role played by food literacy in the protection and promotion of well-being, paving the way for both conceptual and empirical developments. For this purpose, a systematic literature review has been conducted, which, on the one hand, confirmed that food literacy is a blooming field in the scientific literature and, on the other hand, supported the limited understanding about its effects on well-being.

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1. Introduction

Health literacy is a recurring buzzword within the policies which inspire the future shape of health care systems all over the world (Hernandez, 2013; Kickbusch, et al., 2013). It is generally understood as the ability to collect, process, and understand relevant health information to properly navigate the health system (Baker, 2006). From this point of view, health literacy has been usually conceived as a significant determinant of individual well-being, since

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it is strongly related to the appropriate use of prevention services as well as to medication adherence (Paasche-Orlow, 2011). Moreover, due to its effects on increased costs in the provision of health care services, health literacy has been also considered to affect the sustainability of the health care system (Howard, et al., 2005).

Food literacy is a set of skills which is strongly related to health literacy. In fact, it concerns the ability to collect and process relevant information to properly use food in a perspective of enhanced physical and psychic well-being. In spite of the topicality of this issue, little is still known about it. Actually, scholars and practitioners widely discuss on the definitions and potential effects of food literacy, without achieving common understandings. With the purpose of concurring to fill such a knowledge gap in the field of food literacy, this paper shows the results of a systematic literature review, which included both peer reviewed published literature and grey literature.

This article is organized as follows. The next section depicts the methodology of the research. Then the findings of the study are portrayed, suggesting an integrated definition of food literacy and examining its effects on individual and collective well-being. As well, the impacts of food literacy on the sustainability of well-being are debated. The fourth section critically discusses the findings of the research and proposes an integrated conceptual framework to deal with food literacy. Last but not the least, the concluding section includes several insights, which inspire both conceptual and empirical developments.

2. Methods

To collect relevant published and unpublished evidences about food literacy, the Author arranged an *ad-hoc* research protocol. First of all, the eligibility criteria for inclusion in the systematic review have been detailed. In consideration of the originality of the topic, no temporal limitations have been established, with the purposes of avoiding biases in the collection of relevant materials and to achieve a full understanding of the chronological evolution of the examined topic. To enhance the replicability of the review and to include in the analysis only the studies which had an international audience, exclusively English written articles have been contemplated in the analysis. Both traditional and grey literatures have been considered to collect relevant materials. Besides, both conceptual and empirical contributions have been taken into consideration, in order to achieve a full-fledged representation of the state of the art in the field of food literacy.

Six databases – including citation databases, digital libraries, and publishers – have been inquired to collect potentially relevant contribution: “Scopus-Elsevier”, “EBSCOhost Research Databases”, “JSTOR”, “PubMed”, “Emerald”, and “Web of Science”. The breadth and the depth of coverage allowed by the utilization of these databases are strictly consistent with the multi-disciplinary nature of the topic discussed in this paper. Actually, they allowed to collect multi-faceted evidences about food literacy.

In consideration of the similarity of the graphical interfaces of the research engines embedded in the sources which have been interrogated for the purpose of this research, the same research strategy has been employed for each of them. More into details, the algorithm [“Food literacy” in Article Title *OR* “Food literacy” in Article Abstract] has been used as the main key of the research. All the subject areas listed by the databases included in the analysis, including Life Sciences, Physical Sciences, Health Sciences, and Social Sciences, have been contemplated. The last query was run on February, 25th 2015 on each of the citation databases examined for the purpose of this study.

In addition to them, the freely accessible web research engine “Google Scholar” has been explored to collect significant materials. In this case, only records which included the compound term “food literacy” in their title have been contemplated. All the retrieved contributions have been listed within an electronic worksheet, in order to distinguish relevant contributions from records which did not fit with the eligibility criteria arranged at the beginning of the research activity.

In a sum, this research strategy gave back 125 records (22 out of them have been retrieved from Scopus-Elsevier, 8 from PubMed, 15 from EBSCOhost, 1 from Emerald, 1 from JSTOR, 19 from Web of Science, and 59 from Google Scholar.). However, 53 records have been immediately removed after collection, since they were retrieved more than once within the sources included in the research. Out of the remaining 72 records, 22 have been excluded since they did not met the eligibility criteria of the research. In particular, 13 of them have been removed since they did not comply with the language rule; besides, 9 of them have not been considered, since they were draft versions or working papers at a later stage published with similar contents and already included in the analysis. As a result,

50 records have been selected for potential inclusion in systematic review. After an in-depth abstract analysis, which was aimed at selecting only contributions which focused on “food literacy” as their primary subject of concern, 17 records have been considered not relevant for the purpose of this research and then excluded. Therefore, the attention has been focused on a total number of 33 articles. The full-text of each of them has been retrieved from both the databases used to collect relevant contributions and – when not available – from external sources. Figure 1 depicts the selection process and summarizes within a flow-diagram what has been described above.

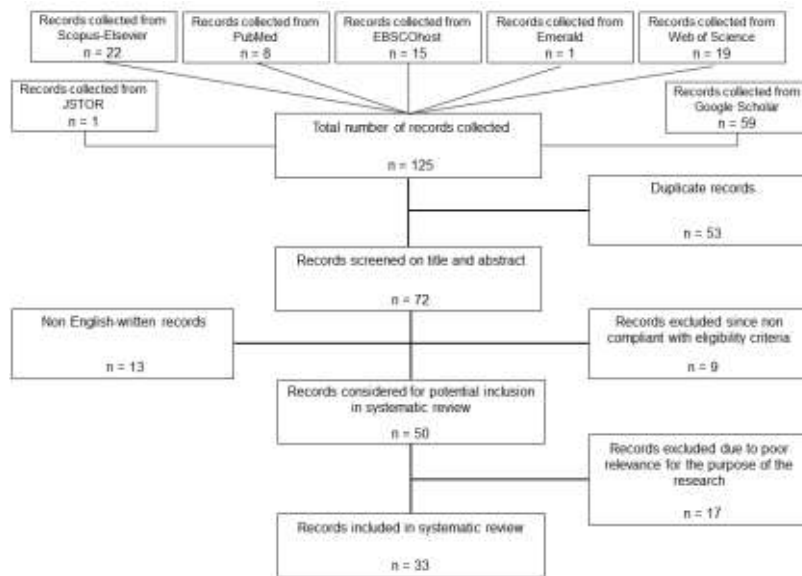


Fig. 1. Flow-chart depicting the search strategy and selection process.

3. Findings

3.1. Toward a consistent definition of “food literacy”

To the knowledge of the Author, the “food literacy” concept has been formerly introduced in the early ‘90s by Jones (1994) to indicate the functional ability of following a healthful diet without deprivation. In this circumstance, food literacy was mainly related to the individual capacity of buying, preparing, and consuming food in a way that allows to avoid diet pitfalls and to achieve smartness in eating. Drawing from such a functionalistic definition of food literacy, Kolasa and Colleagues (2001, p. 77) have pointed out a relationship of the former with the “health literacy” concept. In particular they conceptualized food literacy as “*the capacity of an individual to obtain, interpret and understand basic food and nutrition information and services and the competence to use that information and services in ways that are health-enhancing*”. From this standpoint, food literacy has been understood as a set of functional skills (including literacy and numeracy) as well as social and critical abilities which are needed to select and prepare food in a perspective of well-being enhancement. Rawl and Co-Authors (2008) maintained this link between “health literacy” and “food literacy”, presenting the latter as a fundamental ability to make appropriate health decisions.

In spite of the logical connection existing between food literacy and health literacy, several Authors are still inclined to interpret the former in terms of mere functional skills. Indeed, food literacy has been assimilated to the individual cooking abilities, which in turn have been conceived as “life skills” (Coveney, et al., 2012). In a similar way, Thomas and Irwin (2013) suggested food literacy as one of the main facilitator to the application of cooking skills among at-risk young involved in community-based cooking program. Besides, Vidgen and Gallegos (2010) provided an expanded functional definition of food literacy, describing it in terms of what people, as individuals and

as a community, know and understand about food to make appropriate and healthy dietary choices. Drawing from this conceptualization, food literacy has been assumed to rely on both current knowledge and skills, as well as on past experiences (Farr-Wharton, et al., 2014). In fact, food literacy has been conceived as a kind of intellectual capital, which expresses significant impacts on individual and collective behavioural intentions.

Alternatively, Bellotti (2010) enriched the narrow functional definition of food literacy, understanding it as a link which evocatively reconnects the city with the country. Going more into details, food literacy has been depicted according to three different domains, that is to say “health”, “environment”, and “equity”. In the light of this point of view, food literacy includes the individual skills and abilities which are needed to properly use food in order to: achieve health enhancement, contribute in the development of a sustainable agriculture, and concur in the accomplishment of social equity outcomes. In line with this interpretation, education in the field of food literacy has been recently recognized as “*a useful way of examining the interplay between social, political, economic, and environmental aspects of many food issues*” (Pendergast & Dewhurst, 2012, p. 245).

In an attempt to synthesize the distinguishing interpretations suggested by scholars and practitioners, Vidgen & Gallegos (2014) have provided an integrated framework to describe food literacy and its components, capturing the totality of its concerns. According to them, food literacy derives from the combination of four abilities, which involve the plan and management of food-related decisions, the proper selection and understanding of relevant food information, the functional expertise to prepare food, as well as the acknowledgement of the social issues related to food production and consumption. Hence, recovering the conceptual association between food literacy and health literacy, Murimi (2013) has argued that food literacy includes both functional, relational, and critical skills. In fact, food literate people are able to deal with the main issues which concern food selection and preparation, establish sound social relationships to enhance their functional skills, and perform well in analyzing in a critical way the available food information, thus having greater control over them. Last, but not the least, Widener & Karides (2014) suggested an even broader conceptualization of food literacy, describing it in terms of “system food literacy”. Actually, it implies a complete understanding of the food system and of its social, economic, and environmental issues.

3.2. Food literacy beyond nutrition

Most of the scholars have focused their attention on the relationship existing between food literacy and nutrition literacy, where the latter has been generally understood as a personal issue which concerns the individual ability to understand the importance of good and varied nutrition in maintaining health and well-being. However, in the light of the limited breadth that characterizes nutrition literacy as compared with food literacy, Smith (2009) questioned what concept should be appreciated as the more fitting to guide education programs. In fact, due to its focus on the transmission of information about nutrients, nutrition literacy has been considered to be too limiting for this purpose. Rather, by virtue of its broader area of concern, food literacy has been argued to be more effective in producing behaviour changes, which affect not solely the individual sphere, but also the social one.

Adopting this perspective, Vidgen and Gallegos (2011) claimed that an indirect relationship connects food literacy and nutrition, with the former influencing the latter through three mechanism, that is to say security, choice, and pleasure. In particular, food literacy enhances the individual ability to collect adequate information about the security of food, thus improving the degree of certainty around it and contributing to protect diet quality also when dietary changes are required by economic, social, and/or health contingencies. In addition, food literacy increases the freedom of dietary choices, reinforcing the critical skills related to food selection and consumption. Last but not the least, food literacy concurs in making healthy foods more pleasurable and, consequently, boosts the adherence to healthful diet. The Authors also suggested that the effects of food literacy on nutrition are mediated by both cultural values and principles – which inspire the individual and collective choices – and by the effectiveness of the food supply chain – which affects the prompt availability of varied and fresh food.

From this point of view, food literacy is meant as a intertwined set of interrelated skills and abilities, which are key to properly plan, manage, select, prepare, and eat foods, with the eventual purpose of achieving a balanced diet and improve the psycho-physical well-being (Vidgen, et al., 2012). Such a positive relationship between food literacy and proper nutrition habits has been observed also among children, who have shown an enhanced ability to

achieve health benefits by virtue of a balanced and wholesome diet as a result of their attendance at an education program in the field of food literacy (Nowak, et al., 2012).

Drawing from these findings, Benn (2014) confronted a narrow and a broad understanding of food literacy. In particular, the narrow conceptualization of food literacy adopts a micro perspective, is individual oriented, and focuses on single issues related to food, such as nutrition and cooking. Differently, the broad interpretation of food literacy combines a micro and a macro perspective, is both individual and social oriented, and fosters a critical understanding of the relationship between food and well-being. According to the broad conceptualization, food literacy goes well beyond nutrition and diet, to include a rich set of issues which affect the individual and collective well-being, in adherence with the evolution toward a system food literacy.

3.3. The effects of food literacy on individual and social well-being

Bublitz and Co-Authors (2011, p. 3) identified food literacy as a key requisite to achieve “food well-being”, which is ultimately understood as a positive relationship with food at both the individual and societal levels. Similarly, Block and Colleagues (2011) argued that food illiteracy produces significant individual and societal costs. In fact, the lack of food knowledge paves the way for inadequate ability, motivation, and opportunity to develop and apply food-related expertise. Therefore, marginal food literacy impoverishes food well-being and negatively affects individual and collective health outcomes.

From this standpoint, it is confirmed that food literacy does not solely involve the capacity to make healthy decisions in selecting and preparing food. As well, it includes “*the recognition of the environmental, social, economic, cultural, and political implications*” of the individual decisions about food, in a perspective of enhanced sustainability of individual and social well-being (Sumner, 2013, p. 86). Hence, food literacy has been assumed to be one of the most significant dimensions to evaluate the effectiveness of public health nutrition policy interventions (Macdiarmid, et al., 2011). Indeed, it deeply affects the sustainability of the policies implemented and, at the same time, depicts the effects of the latter on the well-being of the target population.

Food literacy also participates in fostering the economic, social, and environmental sustainability of entrepreneurial initiatives which concern food production and provision in urban areas. In fact, it generates a receptive and favourable context to the development of these kind of initiatives. At the same time, urban entrepreneurial actions in the field of food production stimulate the growth of food literacy, thus paving the way for a virtuous and self-nurturing circle (Schutzbank & Riseman, 2013). As well, food literacy is considered to produce and to be one of the main by-products of local public food interventions aimed at inciting social innovation (Rugea & Mikkelsen, 2013). From this point of view, food literacy turns out to be a crucial concern of policy makers within the initiatives aimed at improving the health and the well-being of current and future generations (Slater, 2013).

In spite of these considerations, Kimura (2011, p. 465) has challenged the food literacy concept, maintaining that it relies on a “*deficiency framework which posits individual knowledge and skills as sole reasons for inappropriate food choices, dietary behaviors, and culinary practices*”. Similar arguments have been discussed by Vaitkeviciute and Colleagues (2015), who argued that, in spite of the broad definition of food literacy, studies which investigate all aspects of this concept are lacking. As a consequence, it does not surprise that few food literacy programmes provide strong evidences about their ultimate effectiveness (Brooks & Begley, 2014).

4. Discussion

Food literacy is a blooming topic, which draws the attention of a growing number of scholars and practitioners from different areas of expertise. However, the scientific and professional literatures have still not achieved common understandings about the ultimate meaning of the food literacy concept. As well, little is known about the effects produced by the interventions aimed at promoting food literacy. Notwithstanding, most of the scholars are consistent in arguing that food literacy plays a significant role in the enhancement of the individual and collective well-being.

The results of this literary review support the existence of two conflicting interpretations of food literacy. According to the narrow conceptualization, food literacy is meant as a personal trait, which concerns the individual ability to collect, process, and use food information in order to make healthy choices. In turn, the improved understanding of food information contributes in the enhancement of the individual well-being as well as of

subjective health. On the other hand, a broader interpretation of food literacy emphasizes its role in the improvement of collective well-being, in the light of its political, economic, environmental, and social implications. Going more into details, food literacy is depicted as a crucial determinant of health improvement, environmental sustainability, and social equity. In these words, a full-fledged understanding of food-related issues allows to grasp with the complexity of the food system, thus paving the way for a viable improvement of the various determinants of individual and social well-being.

According to the findings of this research, the scholars who discuss the effects of food literacy on well-being mainly focus on a narrow understanding of this concept. Indeed, studies aimed at examining the impacts of food literacy on social well-being are widely lacking. Moreover, the idea of sustainability of well-being is conceptually associated with food literacy in most of the studies examined for the purpose of this literature review. However, to the knowledge of the Author, it is not properly taken into consideration within empirical researches. Figure 2 depicts the dual interpretation of food literacy and identifies the current areas of interest of the scientific and professional literatures.

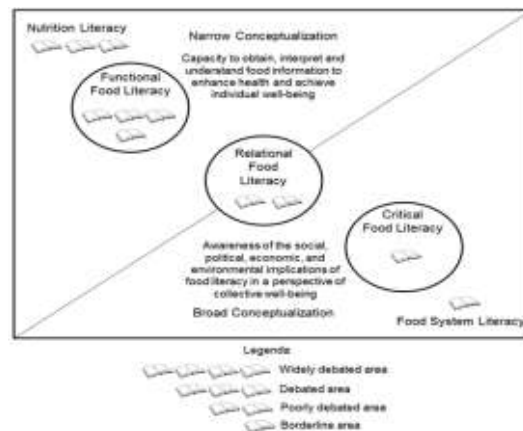


Fig. 2. Debated area in the field of “Food Literacy”.

In spite of the growing agreement about a broad definition of food literacy, functional abilities and nutrition skills continue to be the main focus of empirical studies. On the other hand, critical and relational competencies associated with food literacy are poorly debated and usually overlooked by scholars. In addition, when a systemic approach which is consistent with a broad interpretation of food literacy is adopted, the discourse remains theoretical, with flawed practical implications. Food literacy is generally related with improved cooking skills and nutrition abilities, while its empirical correlation with well-being at both the individual and collective level is uncommon.

5. Conclusion

The results of this study should be analyzed in the light of its limitations. In particular, the focus of the search strategy on the compound term “food literacy” and the consequent exclusion of related keys of research, such as “nutrition literacy” or “smart eating”, have constrained the breadth of the analysis. In a similar way, the decision to include in the study only the materials which dealt with food literacy as the main or one of the key topics affected the depth of the research. Nonetheless, this approach allowed to contemplate only conceptual and empirical contributions rooted in the field of food literacy, thus avoiding biases in the discussion of the findings.

The research in the field of food literacy is rapidly growing, but the developments in this area are limited by several weaknesses. First of all, a narrow interpretation of food literacy is still prevailing, which neglects the role played by food literacy in enhancing the individual and collective well-being. Moreover, food literacy is usually associated with the concept of “well-being sustainability”, but this link is poorly discussed in empirical terms by both the scientific and professional literatures. Last but not the least, tools and empirical approaches to deal with food literacy according to a broad interpretation are lacking, thus preventing further developments.

In the light of these circumstances, future researches should be aimed at grasping with the broad interpretation of food literacy, providing practical tools and tailored methodologies to deal with the complex issues which characterize the food system. In particular, the connection between food literacy and both the individual and social well-being should be better discussed, in a perspective of enhanced well-being sustainability.

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