(Un)Healthy Behavior? The Relationship between Media Literacy, Nutritional Behavior, and Self-Representation on Instagram

Claudia Riesmeyer *, Julia Hauswald and Marina Mergen

Department of Media and Communication, LMU Munich, 80538 Munich, Germany; E-Mails: riesmeyer@ifkw.lmu.de (C.R.), Julia.Hauswald@gmx.de (J.H.), marina.mergen@yahoo.de (M.M.)

* Corresponding author

Submitted: 11 December 2018 | Accepted: 23 January 2019 | Published: 11 June 2019

Abstract

The article examines the relationship between media (and health literacy), self-representation, and nutritional behavior of girls who receive nutrition-related content on Instagram. Analyzing this relationship is important because social networks like Instagram can be used as platforms to promote one’s nutritional behavior as expression of personality and to interact with others. Countless meal images are posted, and reach a large number of users. With its visual characteristics, Instagram seems predestined for nutrition-related self-representation. Media literacy, one way of raising young people’s awareness of the risks of media use, encompasses the skills knowledge, evaluation, and action. If media literacy is transferred to the field of health communication, intersections become apparent. Media literacy is understood as a necessary ability to distinguish credible health information from non-credible health information. Both media and health literacy include the skills knowledge, evaluation, and action. Based on 15 qualitative interviews with girls in the age of 13 to 19, results show the relevance of media and health literacy for nutritional behavior. The girls own background information to classify and evaluate received content. They know that content on Instagram is staged and they reflect about negative effects of staged images. However, these images inspire them for their self-representation and nutritional behavior. They adapt what they see into their own eating habits, adopt trends, and thus act against their knowledge of negative consequences to reach the socially expected body image.

Keywords

health literacy; Instagram; media literacy; nutritional behavior; self-representation

Issue

This article is part of the issue “Critical Perspectives on Digital Literacies: Creating a Path Forward”, edited by Hiller A. Spires (North Carolina State University, USA).

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1. Introduction

This article examines the relationship between media and health literacy, self-representation, and the nutritional behavior of girls who receive nutrition-related content on Instagram. Analyzing this relationship is important for several reasons: first, social networks, such as Instagram, can be used as platforms to promote one’s nutritional behavior as an expression of one’s personality and to interact with others. For example, countless users publish pictures of their meals on Instagram with corresponding hashtags (e.g., #cleaneating, with almost 42 million posts), reaching many users worldwide. Half of all young people aged 12–19 use Instagram regularly (JIM, 2017). With its visual characteristics, Instagram seems predestined for users’ nutrition-related self-representation.

Second, as adolescents are in the process of developing their personalities (Hurrelmann, 1990) and body consciousness through using media (Havighurst, 1956), social media serves as a “space for experience and a source of orientation” (Schorb, 2014, p. 178). The reception of social media content supports adolescents in forming...
their identity and promotes the integration of information into the adolescent’s self-concept. The large number of nutrition-related contributions on social networks (Soelkner, Huber, Lenartz, & Rudinger, 2009) suggests that the reception of such posts can influence young people’s self-concepts. Young women who use Facebook, for example, have significantly higher concerns about body ideals, especially slimness (Tiggemann & Slater, 2013), and the internalization of these body ideals can affect eating behaviors (Sidani, Shensa, Hoffman, Hanmer, & Primack, 2016).

One way of sensitizing adolescents to the risks of their media use is to mediate media and health literacy (Livingstone, 2014). More than 80% of Internet users search online for health information (Fox & Duggan, 2013), which shows the enormous importance of literate handling of such information. Despite the relevance of media and health literacy, little research conducted in the context of nutritional behavior has taken these aspects into account. While some studies have examined the (negative) influence of the use of social media on nutritional behavior (e.g., Beckert-Zieglschmid, 2004; Ging & Garvey, 2018; Holland & Tiggemann, 2017; O’Brien, 2015; Turner & Lefevre, 2017), the influence of media literacy has seldom been researched (e.g., Bergsma & Carney, 2008).

2. Media Literacy: Knowledge, Evaluation, and Action

Media literacy is defined as the ability to reflect on the opportunities and risks of media use (UNESCO, 2016). The differentiation and change in the media landscape over the past several decades have forced us to confront the concept of media literacy, which has “asserted itself in the (cultural) political discourse” (Groeben, 2002, p. 11). While numerous explanations of media literacy exist due to diverse empirical perspectives towards it, all the approaches have a goal orientation in common. Through mediation, the individual without media literacy should be able to use media more competently than before. Prerequisites are the motivation (Pfaff-Rüdiger & Riesmeyer, 2016) and willingness “to act appropriately, self-determined, and creatively with social responsibility” (Tulodziecki, 1998, p. 697). The acquisition of media literacy is a generation-overlapping task, beginning in the childhood with the first media access (e.g., lifelong learning).

Since the possibilities for communicating and acting within the dynamic media world are constantly expanding, adolescents in particular need media literacy to use and present themselves on social media safely (Livingstone, 2014). Media literacy is taught in the media socialization process and is tantamount to lifelong learning (Hurrelmann & Bauer, 2018). Family is the primary agent for imparting media skills, with differences in parental media education determined by parents’ age, media literacy, and media use (Livingstone et al., 2017). Schools and friends also act as agents (Buckingham et al., 2005; Hurrelmann & Bauer, 2018; Paek, Reber, & Lariscy, 2011; Theunert & Schorb, 2010). Research often fails to take into account adolescents’ participation in media literacy acquisition. In the course of this self-socialization (Arnett, 1995a), adolescents choose media freely and perceive it according to their needs.

Furthermore, media literacy provides a possibility to reflect on and control the (partly negative) effects of media use (Potter, 2004). The critical examination of content and the ability to contextualize media and act in a media environment are essential key qualifications for the acquisition of media messages (Hobbs, 2011). Livingstone and Helsper (2010, p. 257) defined media literacy as “the ability to access, analyze, evaluate, and create messages in a variety of forms” (p. 311). These skills are part of the definition by Schorb (2005), who distinguishes media literacy triangularly, as follows:

- **Knowledge**: consisting of functional and structural (background knowledge about the media system, its functionality, and impact) as well as orientation knowledge (combination of knowledge and evaluation, orientation in a media context, defining and taking up one’s own position on the basis of rationalism, ethics, and evaluation);
- **Evaluation**: ethically and cognitively based ability to critically reflect on technical and content offerings (understanding, classifying, accepting or rejecting media and their content);
- **Action**: based on evaluation, consists of the dimensions “media appropriation, use, participation and design” (p. 261).

These three skills can be transferred to health communication because media literacy is considered a necessary skill to assess the credibility of health-relevant information, as the multitude of online sources has increased the amount of information available (both serious and unserious).

3. Health Literacy: Functional, Communicative, and Critical Skills

Since the 1970s, science has been increasingly interested in health literacy (Batterham, Hawkins, Collins, Buchbinder, & Osborne, 2016). While earlier work focused on functional skills such as reading and writing for health-literate information handling, the concept today includes a variety of factors that determine how people find, understand, and deal with relevant information (Parker, Baker, Williams, & Nurss, 1995). The World Health Organization (1998) defines health literacy as “cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health” (p. 10). Health literacy is considered mandatory to have access to and to use health care, to interact with health care providers, to care for one’s health and that of
others, and to participate in health discourses and decisions (Batterham et al., 2016; Soellner et al., 2009).

There is a lively debate among health literacy studies about how to define health literacy and regarding the skills that must be evident to be considered literate (Seçkin, Yeatts, Hughes, Hudson, & Bell, 2016). Nutbeam (2000) conceptualized these skills in his much-quoted systematic model of health literacy (Soellner et al., 2009). This model is used in this article for theoretical foundation because it can be combined with Schorb’s media literacy model (2005). Nutbeam (2000, p. 263) built his model successively and distinguished between three stages:

1. **Basic/functional literacy**: includes fundamental cognitive skills (focus on reading and writing), necessary for cognitive processing of health-related information;

2. **Communicative/interactive literacy**: combines basic cognitive and social skills, necessary for the extraction and application of information from communicative environments in everyday situations;

3. **Critical literacy**: combines advanced cognitive and social skills, capable of critical analysis of information and to control of one’s health related action and behavior.

According to Nutbeam (2000), literacy mediation can start at any of the three levels. During childhood and adolescence, basal patterns of health behavior develop, which stabilize after this period, and basic structures of individual behavior patterns are maintained in adulthood (Langness, Richter, & Hurrelmann, 2005). Since health literacy is regarded as a fundamental factor influencing mental and physical health (Soellner et al., 2009), it is essential to promote it in childhood and adolescence.

**4. The Interplay between Media and Health Literacy: State of Research**

Empirical research has rarely considered the interplay of media and health literacy in relation to dietary behavior, Instagram use, and literacy mediation; the majority of studies tend to focus more on the relationship between the use of social media and dietary behavior (e.g., Beckert-Zieglschmid, 2004; Miah & Rich, 2008; Sidani et al., 2016). However, most studies deal exclusively with the use of applications and their impact on unhealthy diets (Ging & Garvey, 2018; Holland & Tiggemann, 2017; O’Brien, 2015; Turner & Lefevre, 2017). For example, the use of social media is significantly related to eating disorders. In particular, social networks that link visual elements and peer interactions can increase the risk of eating disorders (Sidani et al., 2016).

Exceptions include the studies by Levin-Zamir, Lemish and Gofin (2011) and Chang et al. (2015), which confirm that media health competence has a positive influence on health-enhancing behavior and nutrition routines, and that functional health competence has a positive effect on health-relevant actions (Chang et al., 2015). Maag (2007) analyzed the relationship between health literacy and nutrition, exercise, and weight, however failed to establish the connection to media literacy, its mediation, and the use of social media, even though the use of social media is integrated into everyday life (especially among young people) and a healthy diet and reaching the social body ideals are relevant for half of Germans (TKK, 2017). Younger people in particular are following nutrition trends (TKK, 2017). Langness et al. (2005) showed that people who routinely eat a healthy diet at a young age are less likely to fall chronically ill later. These dietary routines are influenced by the parents and the independent will of young people during puberty.

**5. Research Questions**

As can be seen in the representation of the two models, both comprise three stages. Even though Schorb’s (2005) model is triangular and Nutbeam’s (2000) model is successive, similarities are evident. Both models comprise knowledge, evaluation, and action, which can be combined and defined as follows:

- **Knowledge**: functional health literacy (background knowledge, processing of health information to generate knowledge, and awareness of mediality);
- **Evaluation**: critical health literacy (critical reflection and control over own health-related actions and behavior);
- **Action**: communicative, interactive literacy (appropriation of knowledge, social interaction with others, self-representation, and nutritional behavior).

Based on existing research, this article aims to answer the following research questions:

RQ1: What is the origin of media literacy and nutritional knowledge among young social media users (mediation of skills)?

RQ2: What constitutes the awareness of mediality and the interpretation nutritional-related Instagram posts among young people?

RQ3: What is the relationship between the receptions of nutritional-related Instagram posts on young users’ nutritional behavior?

RQ4: How do young users evaluate and critically reflect on the reception of nutritional contributions?

RQ5: What is the relationship between users’ nutritional behavior and self-representation on Instagram?

**6. Method: Qualitative Interviews**

To answer the research questions, we conducted 15 qualitative interviews with girls aged 13–19 in May and June 2018. This age group was selected because Instagram is one of their used apps (JIM, 2017), and girls are par-
ticularly susceptible to eating disorders (Meier & Gray, 2014). In addition, during this period adolescents shift their interests as well as their orientation on socialization agents (from family to peers; Arnett, 2007; Grusec, 2002). To investigate possible influences on nutritional behavior, the inclusion criterion for selected participants was the active use of an Instagram account. The interviewees were recruited using theoretical sampling (Kvale & Brinkman, 2009; Mason, 2018) and we recruited them for the interviews through personal contacts (e.g., sports clubs and youth centers). Table 1 presents an overview of the sample characteristics. The face-to-face interviews were held either at the respondents’ homes, in cafés, or at LMU Munich.

The aforementioned dimensions of knowledge, evaluation, and action were operationalized and transferred into the interview guidelines (Table 2). The category “everyday life” was included to establish relationships with nutrition and Instagram use. The guided questions were asked in a flexible order to give the greatest possible freedom for the answers, but also to ensure that no aspect was forgotten. In addition to openness, familiarity during the interview was important because nutritional behavior is a sensitive and personal topic. The guide comprised 19 main questions and some following-up questions. In addition, the participants were given a primary task to encourage them to think aloud. In the task, the participants were shown up to four real Instagram posts of healthy food to prompt their reflections on other peoples’—and their own—nutritional behavior, to determine the importance they might attach to it, and to discuss whether they would publish similar images (self-representation).

The interviews were conducted face-to-face, recorded, transcribed, anonymized, and analyzed using a theory-driven approach. At first, the transcripts were cleared of digressive or misleading text passages and relevant sections were inserted in tabular form under corresponding categories. Should a new aspect arise that could not be classified in any of the deductively formed categories, another subcategory was inductively formed. This procedure was followed by a linguistic and content reduction of the text passages that made generalizing statements and to filter findings from the material.

### Table 1. Sample characteristics.

| Name   | Age | Educational status                      |
|--------|-----|----------------------------------------|
| Anna   | 17  | Pupil (Secondary Modern School)         |
| Barbara| 19  | Student (University)                    |
| Charlotte | 16 | Pupil (Secondary School)               |
| Diana  | 17  | Pupil (High School)                     |
| Eva    | 19  | Apprentice                              |
| Felizitas | 19 | Pediatric nurse                        |
| Gina   | 17  | Pupil (High School)                     |
| Hannah | 13  | Pupil (Secondary School)                |
| Idia   | 15  | Pupil (High School)                     |
| Julia  | 13  | Pupil (High School)                     |
| Klara  | 15  | Pupil (High School)                     |
| Luise  | 14  | Pupil (High School)                     |
| Martha | 14  | Pupil (Secondary Modern School)         |
| Nora   | 15  | Pupil (High School)                     |
| Olivia | 14  | Pupil (High School)                     |

Note: The transcripts were anonymized, and participants were given a generic name, which matches the in-text quotation and mentions.

### 7. Results

A clear picture emerged regarding the participants’ use of Instagram: social media, especially Instagram, plays an enormous role in the everyday life of the teenage girls. Instagram has taken such an important place in the lives of all participants that they begin their day by opening the app and end their day by closing it. The social network In-

### Table 2. Category system.

| Category       | Operationalization                                                                 |
|----------------|-----------------------------------------------------------------------------------|
| Everyday life  | • Daily routines, hobbies, leisure time.                                           |
|                | • Instagram use (active, passive use, followed accounts, privacy).                 |
|                | • Nutrition (daily routines)                                                      |
| Knowledge      | • Background knowledge about Instagram and its functionalities (e.g., hashtags,    |
|                |   content staging, and manipulation).                                             |
|                | • Processing of health information to generate knowledge.                          |
|                | • Awareness of mediality (knowledge of norms, fiction vs. reality on Instagram).   |
|                | • Mediation of knowledge concerning nutrition (e.g., family, peers, influencer).   |
| Evaluation     | • Critical reflection (positive and negative effects of Instagram use and on       |
|                |   nutritional behavior).                                                           |
|                | • Control over own health-related actions and behavior.                            |
|                | • Importance and appraisal of healthy and unhealthy nutrition behavior.            |
| Action         | • Appropriation of knowledge.                                                     |
|                | • Social interaction with others.                                                  |
|                | • Self-representation (orientation and influences, perception presentation of others). |
|                | • Nutritional behavior (orientation and influences).                               |
The participants showed similar Instagram usage in their everyday lives. They had all encountered the “typical” food images on Instagram, presenting healthy food, and while the participants’ friends and acquaintances posted nutritional images on Instagram to illustrate the nutritional value of food, the participants claimed that the majority of nutritional contributions on Instagram came from celebrities or professional fitness bloggers. The majority of young people are confronted with food contributions that are staged, published, and accessible online. Even though parents often teach media literacy (Arnett, 1995b, 2007; Livingstone & Blum, 2018), their knowledge acquisition of hashtags or Instagram use appeared to be limited. Even if the parents were clear about the meaning and use of a hashtag, the participants reported that they taught themselves how to use them when they started using Instagram or another social media. Martha (14) emphasized her active role in the acquisition of knowledge:

At the beginning, when I didn’t know Instagram that well, I found out. Or, for example, in the stories, they sometimes mention “there is this and the hashtag”. And that’s when I found out what a hashtag is and how to use it.

The realization that knowledge about hashtags is socialized can also be explained by the fact that the majority of families have no rules regarding Instagram use because the parents do not use the platform and thus lack knowledge of it (e.g., self-socialization; Blum-Ross et al., 2018; Lewis, 2014).

The participant girls also had similar nutritional knowledge. For most of them, healthy eating referred to eating freshly cooked meals prepared with fruit and vegetables, and many mentioned that eating healthily involved restricting sugar and fast food consumption. The girls’ nutritional behavior seemed to be identical: most girls described their eating habits as ‘normal’ and claimed that their habits could depend on phases in their lives. For example, they eat what tastes good, sometimes sweet or unhealthy. Some girls follow certain diets, such as vegetarian or vegan diets; and if they do more sport, they often pay closer attention to ensuring they eat a healthy diet (e.g., “If I have a sport phase right now, then I really try to pay attention to my eating habits”, Eva, 19). They described a healthy diet as a mean to achieving their desired body, and they often automatically linked food images with a healthy diet. Among the girls interviewed, this link and theses food habits played an important role in everyday life.

When asked how they knew what healthy eating means, it became clear that parents and teachers are particularly important for this knowledge transfer. The offline social environment, particularly the family, has a significant influence on nutritional behavior because the girls mainly eat at home and their meals (choice of food, composition and meal times) are determined by their parents. The exchange of nutritional information is also increasingly taking place within the close family environment:

My big brother pushed me so much from a nutritional point of view because he dealt with it a lot. I know a lot about him and he always says: “Do that and that’s good.” But he gets the information, and he doesn’t even have Instagram. (Felizitas, 19)

However, some girls claimed to have acquired knowledge about nutrition through traditional and social media. Julia (13), for example, told of lifestyle bloggers on Instagram who “always share their food or fitness stuff”. Thus, self-socialization also plays a role in the acquisition of nutritional knowledge.

Overall, the results of the interviews show that the sources of knowledge of media competence and nutritional behavior overlap to some extent (RQ1). Knowledge-related media literacy with regard to hashtags is acquired almost exclusively through independent learning. At the same time—at least in a minority—self-acquisition of nutritional knowledge takes place, which at least partly proves a common origin of knowledge. Nevertheless, the parental home and the school remain the largest knowledge mediators for young people when it comes to healthy and possible unhealthy nutrition.

7.2. Link between Mediality Awareness and the Interpretation of Nutrition-Related Instagram Posts

An analysis of the evaluation of media literacy and nutritional behavior showed that the participants were aware that Instagram contributions are part of a media construction and are thus largely staged. They also noted that, in some cases, many posts falsely suggest through their aesthetic presentation that the represented dishes are healthy. In this context, the participant girls reported that Instagram is the platform on which perfectionism and staging dominates, since nothing is portrayed as it is in reality, and only the best and most beautiful images are posted. Accordingly, the participants possess the ability to distinguish media constructions and distortions from reality. They explained their assessment by saying the dishes were too perfect and that preparing such dishes was too time-consuming for everyday life. By comparing their eating behaviors with the Instagram contributions, the participants tended to deduce that the staging of professional Instagram bloggers does not correspond to reality. The majority of the girls assumed that Instagrammers do not eat healthy food as consistently as

Media and Communication, 2019, Volume 7, Issue 2, Pages 160–168
their Instagram profiles suggest:

I think, if you post only such posts, I find that somehow a lie because there is no person who really only eats healthily. So, I can’t imagine that. There are all these people who have such fitness sites, but there are certainly days when they eat chocolate or something. (Diana, 17)

Moreover, the majority of girls are confident that dishes are arranged exclusively for posting on Instagram, which in turn relates to a lack of credibility regarding the nutritional behavior of food bloggers. From this feedback, it can be concluded that the participants’ awareness of mediality has a significant impact on young people’s interpretation of nutritional content presented and staged on Instagram (RQ2). The awareness of mediality helps the girls to distinguish between their reality and the reality constructed by the media.

7.3. Link between the Reception of Nutritional-Related Instagram Posts and Nutritional Behavior

To what extent does Instagram use relate to individual dietary behavior? An analysis of the participants’ actions as a component of media literacy and nutritional behavior showed that many participants actively use Instagram and post food photos in their Instagram story. However, not only the posting of food pictures is relevant. Many of the respondents are inspired to try out the dishes presented by the people they follow. Nutritional pictures on the social network also serve as inspiration and motivation for a healthier diet. Notably, the discussion participants consciously integrate individual nutrition trends from Instagram into their everyday eating behavior (e.g., trying chia seeds, Felizitas, 19). Instagram posts from vegan dishes, for example, inspired Nora (15):

I always looked at the pictures first and then the comments....There were many dishes that convinced me; it also tastes good when you eat vegan, have a healthier eating behavior and can still eat delicious things.

The use of Instagram and the confrontation with images of healthy eating leads to the assumption among the participants that their diet is healthier today than it was in the past.

Nutrition-related posts on Instagram was found to have an effect on the girls (RQ3) because they tended to try out ideas they had obtained from social networks. The participants were able to recognize and verbalize this connection, and the majority of the girls were actively integrating a healthier diet into their everyday lives by, for example, planning to eat less in the evening or to include more fruit and vegetables in their meal plans—inspired by Instagram. Thus, a connection was evident between the actions on Instagram and the participants’ dietary behavior.

7.4. Link between Evaluation and Critical Reflection of the Reception of Food Contributions

An analysis of the positive and negative effects of the nutritional contributions showed that all interviewees recognized, on reflection, the negative influence of Instagram use on their everyday behavior. The participants viewed self-esteem and inferiority complexes as possible consequences of Instagram contributions that can have serious effects (e.g., eating disorders). They attribute this outcome to the fact that most people want to belong to the majority. As Instagram gives the impression that everyone (especially the influencer the girls follow) eats healthily, this assumption makes young people feel guilty about their diet. However, it is striking that healthy eating is not primarily associated with attributes of health and that the main reason for many girls to eat healthily is to get a slim body or look as good as others on Instagram: “I think that the photos influence some... somehow indirectly...You just sit with the chip bag in front of it (in front of the smartphone) and see that and somehow get a guilty conscience” (Eva, 19).

By contrast, the participants claimed that Instagram has besides negative effects Instagram also has a positive influence on self-esteem—because positive feedback and “likes” can increase self-esteem—and on motivating them to participate in sports or other activities. They claimed that the food pictures lead them to make comparisons with their diet, but in a positive sense, because seeing healthy meals motivates them to reconsider and adapt their nutritional behavior. Regarding the influence of Instagram, Anna (17) explained:

Not have to change, but rather want to change. So, I think if you see healthy food and the food looks delicious—because the pictures look nice—then you think: “Yes then I can eat that too, so to speak”.

In summary, it can be said that the participants are able to make critical evaluations about the received content and can identify contributions that are far removed from reality, which is a decisive component of media competence (RQ4). The participants also have the ability to understand and verbalize the possible dangers of the nutritional contributions.

7.5. Link between Nutritional Behavior and Self-Representation

An analysis of the categories of nutritional behavior (everyday life) and self-representation reveals a clear picture that the girls like to stage pictures of themselves, of them and their friends, and of their holidays. Food pictures play a marginal role in their self-representation. As their pictures are uploaded in the form of stories and are only available for a short period, they do not represent a long-term self-portrayal. The online placement of food pictures by non-celebrities is often viewed nega-
tively. Diana (17) tells of friends: “they only upload food stuff and that somehow bothers me. Well, I don’t know, I like to see something else. Instagram isn’t just there to upload food pictures”.

Food pictures seem to serve as an orientation for individual eating behaviors, but they do not have a great influence on an individual’s self-portrayal on the Internet. A possible reason for this is that young people mainly receive staged food pictures of well-known personalities, and the pressure to reach this ideal seems to be too high to expose oneself to it. Notably, girls who follow a particular diet tend to present their diet more strongly than others do on Instagram and use food pictures for self-representation. For example, Nora (15), who is vegan, is an example for this result: “[I post food photos] as often as I cook”. From this feedback, it can be concluded that young people who have a pronounced identification with a dietary style are more likely to share it on social media and present themselves accordingly. Although young people adopt nutritional trends in their everyday eating habits, the participants who tended to eat ‘normally’ gave the impression that they also want to communicate this to the outside world (RQ5).

8. Discussion

The results show the relevance of media and health literacy in the nutritional behavior of adolescent girls. The importance of parents as the first socialization agent and of young people themselves in terms of self-socialization becomes clear. Their eating behavior is influenced by their parents, although there are differences in the nutritional information (Maag, 2007). It is therefore essential to promote health education because it lays the foundations for healthy eating behavior in childhood (Das et al., 2017) and promotes health literacy (Nutbeam, 2000, 2008). Furthermore, adolescents often acquire media knowledge by themselves because of the parents’ non-use or incomprehension. The girls are confronted almost daily with nutritional content on Instagram and receive contributions from professional sports bloggers or celebrities. These contributions often propagate a healthy lifestyle and present body ideals, and the girls automatically associate body ideals with a healthy diet. However, the reception of food or body images raises the pressure to adapt to these ideals, which leads to a negative perception of these images. The mass of nutritional information on Instagram leads girls to attach great importance to nutrition and to regard healthy eating as a target component for a good figure. Nevertheless, Instagram use can also have a positive impact on health literacy because the food posts introduce girls to new foods and encourage them to reflect on their food composition, even if it does not necessarily lead to a change in dietary behavior (Chang et al., 2015; Levin-Zamir et al., 2011).

The girls rely on their own background information to classify and evaluate received content (staging, self-representation, production conditions of celebrities’ posts). They know that content shared on Instagram does not reflect “reality”. However, as the staged images are more popular than non-staged ones, and the girls reflect on the negative effects of staged images, these images inspire their self-representation and nutritional behavior because they adapt what they see into their eating habits, adopt trends, and even act against their knowledge of negative consequences to reach the socially expected body image and socially expected type of Instagram images, too. In adapting nutrition trends to everyday eating habits, the general involvement (personal interests in Instagram) and the choice of role models used for one’s identity adaptation seem to play a role. The interviews showed that through evaluative self-literacy, the young girls were aware of the effects of receiving nutritional content and could assign the resulting eating habits to the online content. Media literacy is thus decisive for a health-competent handling of online messages. However, media and health literacy do not automatically lead to healthier eating habits among young girls because, despite their knowledge of healthy nutrition and media functionalities, they act against this knowledge and allow their eating habits to be influenced.

Conflict of Interests

The authors declare no conflict of interests.

References

Arnett, J. J. (1995a). Adolescents’ use of media for self-socialization. Journal of Youth and Adolescence, 24(5), 519–533.
Arnett, J. J. (1995b): Broad and narrow socialization: The family in the context of a cultural theory. Journal of Marriage and the Family, 57(3), 617–628.
Arnett, J. J. (2007). Socialization in emerging adulthood. In J. E. Grusec & P. D. Hastings (Eds.), Socialization. Theory and research (pp. 208–231). New York, NY: The Guilford Press.
Batterham, R. W., Hawkins, M., Collins, P. A., Buchbinder, R., & Osborne, R. H (2016). Health literacy: Applying current concepts to improve health services and reduce health inequalities. Public Health, 132, 3–12.
Beckert-Zieglschmid, C. (2004). Individualisiertes Gesundheitsverhalten? Soziale Strukturen, Peereinflüsse und Lebensstile als Einflussfaktoren des Ernährungsverhaltens Jugendlicher [Individualized health behavior? Social structures, peer influences and lifestyles as influencing factors of nutritional behavior of young people]. Sozial- und Präventionsmedizin, 50(4), 206–217.
Bergsma, L. J., & Carney, M. E. (2008). Effectiveness of health-promoting media literacy education: A systematic review. Health Education Research, 23, 522–542.
Blum-Ross, A., Donoso, V., Dinh, T., Mascheroni, G., O’Neill, B., Riesmeyer, C., & Stoilova, M. (2018). Look-
ing forward: Technological and social change in the lives of European children and young people. Report for the ICT coalition for children online. Brussels: ICT Coalition.

Buckingham, D., Banaji, S., Burn, A., Carr, D., Cranmer, S., & Willet, R. (2005). The media literacy of children and young people. London: Centre for the Study of Children, Youth and Media. Retrieved from http://discovery.ucl.ac.uk/10000145/1/Buckinghammedialliteracy.pdf

Chang, F.-C, Chiu, C.-H., Chen, P.-H., Miao, N.-F., Lee, C.-M., Chiang, J.-T., & Pan, Y. C. (2015). Relationship between parental and adolescent ehealth literacy and online health information seeking in Taiwan. Cyberpsychology, Behavior, and Social Networking, 18(10), 618–624.

Das, J. K., Salam, R. A., Thornburg, K. L., Prentice, A. M., Campisi, S., Lassi, Z. S., . . . & Bhutta, Z. A. (2017). Nutrition in adolescents: Physiology, metabolism, and nutritional needs. Annals of the New York Academy of Sciences, 1393, 21–33.

Fox, S., & Duggan, M. (2013). Health online 2013. Pew Research Center. Retrieved from www.pewinternet.org/2013/01/15/health-online-2013

Ging, D., & Garvey, S. (2018). “Written in these scars are the stories I can’t explain”: A content analysis of pro-ana and thinspiration image sharing on Instagram. New Media & Society, 20(3), 1181–1200.

Groeben, N. (2002). Anforderungen an die theoretische Konzeptualisierung von Medienkompetenz [Requirements for the theoretical conceptualisation of media literacy]. In N. Groeben & B. Hurrelmann (Eds.), Medienkompetenz. Voraussetzungen, Dimensionen, Funktionen (pp. 11–24). Weinheim: Juventa.

Grusec, J. (2002). Parental socialization and children’s acquisition of values. In M. Bornstein (Ed.), Handbook of parenting (pp. 143–168). Mahwah: Erlbaum.

Havighurst, R. J. (1956). Research on the developmental-task concept. The School Review, 64(5), 215–223.

Hobbs, R. (2011). The state of media literacy: A response to Potter. Journal of Broadcasting & Electronic Media, 55(3), 419–430.

Holland, G., & Tiggemann, M. (2017). “Strong beats skinny every time”: Disordered eating and compulsive exercise in women who post fitspiration on Instagram. International Journal of Eating Disorders, 50(1), 76–79.

Hurrelmann, K. (1990). Parents, peers, teachers, and other significant partners in adolescence. International Journal of Adolescence and Youth, 2, 211–236.

Hurrelmann, K., & Bauer, U. (2018). Socialization during the life course. Oxon: Routledge.

JIM. (2017). Jugend, information, (multi)-media [Youth, information, and (multi)-media]. Stuttgart: mpfs.

Kvale, S., & Brinkmann, S. (2009). Interviews. Learning the craft of qualitative research interviewing. London: Sage.

Langness, A., Richter, M., & Hurrelmann, K. (2005). Gesundheitsverhalten im Jugendalter: Ergebnisse der internationalen „Health Behaviour in School-aged Children“-Studie [Health behavior in adolescence: Results of the international ”Health Behavior in School-aged Children“ study]. Gesundheitswesen, 67, 422–431.

Levin-Zamir, D., Lemish, D., & Gofin, R. (2011). Media health literacy (MHL): Development and measurement of the concept among adolescents. Health Education Research, 26(2), 323–335.

Lewis, B. (2014). Raising children in a digital age. Oxford: Lion Hudson.

Livingstone, S. (2014) Developing social media literacy: How children learn to interpret risky opportunities on social network sites. Communications. The European Journal of Communication Research, 39(3), 283–303.

Livingstone, S., & Blum, A. (2018). Parenting for a digital future...The book! Parenting for a Digital Future. Retrieved from http://blogs.lse.ac.uk/parenting4digitalfuture/2018/11/07/parenting-for-a-digital-future-the-book

Livingstone, S., & Helsper, E. (2010). Balancing opportunities and risks in teenagers’ use of the internet: The role of online skill and internet self-efficacy. New Media & Society, 12(2), 309–329.

Livingstone, S., Ólafsson, K., Helsper, E. J., Lupsz- Villanueva, F., Velti, G. A., & Folkvord, F. (2017). Maximizing opportunities and minimizing risks for children online: The role of digital skills in emerging strategies of parental mediation. Journal of Commumiation, 67, 82–105.

Maag, D. (2007). Gesundheitskompetenz bezüglich Ernährung, Bewegung und Gewicht (Unpublished doctoral dissertation) [Health literacy with regard to nutrition, exercise, and weight]. Lugano: Università della Svizzera italiana. Retrieved from http://doc.rero.ch/record/7981/files/?ln=en

Mason, J. (2018). Qualitative research. London: Sage.

Meier, E. P., & Gray, J. (2014). Facebook photo activity associated with body image disturbance in adolescent girls. Cyberpsychology, Behavior, and Social Networking, 17(4), 199–206.

Miah, A., & Rich, E. (2008). The medicalization of cyberspace. London: Routledge.

Nutbeam, D. (2000). Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21st century. Health Promotion International, 15(3), 259–267.

Nutbeam, D. (2008). The evolving concept of health literacy. Social Science & Medicine, 67(12), 2072–2078.

O’Brien, K. (2015). The cultivation of eating disorders through Instagram (Unpublished master’s dissertation). Tampa, FL: University of South Florida. Retrieved from http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=7200&context=etd

Paek, H.-J., Reber, B. H., & Lariscy, R. W. (2011). Roles of interpersonal and media socialization agents in ado-
lescent self-reported health literacy: A health socialization perspective. *Health Education Research, 2*(1), 131–149.

Parker, R. M., Baker, D. W., Williams, M. V., & Nurss, J. R. (1995). The test of functional health literacy in adults. *Journal of General Internal Medicine, 10*(10), 537–541.

Pfaff-Rüdiger, S., & Riesmeyer, C. (2016). Moved into action. Media literacy as social process. *Journal of Children and Media, 10*(2), 164–172.

Potter, J. W. (2004). *Theory of media literacy: A cognitive approach*. Thousand Oaks, CA: SAGE Publications.

Schorb, B. (2005). Medienkompetenz [Media literacy]. In J. Hüther & B. Schorb (Eds.), *Grundbegriffe Medienpädagogik* (pp. 257–262). München: kopaed.

Schorb, B. (2014). Identität und Medien [Media and identity]. In A. Tillmann, S. Fleischer, & K.-U. Hugger (Eds.), *Handbuch Kinder und Medien* (pp. 171–180). Wiesbaden: Springer.

Seçkin, G., Yeatts, D., Hughes, S., Hudson, C., & Bell, V. (2016). Being an informed consumer of health information and assessment of electronic health literacy in a national sample of internet users: Validity and reliability of the e-HLS instrument. *Journal of Medical Internet Research, 18*(7), 1–25.

Sidani, J. E., Shensa, A., Hoffman, B., Hanmer, J., & Primack, B. A. (2016). The association between social media use and eating concerns among US young adults. *Journal of the Academy of Nutrition and Dietetics, 116*, 1465–1472.

Soellner, R., Huber, S., Lenartz, N., & Rudinger, G. (2009). Gesundheitskompetenz—Ein vielschichtiger Begriff [Health literacy—a multidimensional term]. *Zeitschrift für Gesundheitspsychologie, 17*, 105–113.

Tiggesmehn, M., & Slater, A. (2013). NetGirls: The internet, Facebook, and body image concern in adolescent girls: The internet and body image concern. *International Journal of Eating Disorders, 46*(6), 630–633.

TKK. (2017). *TK-Studie zur Ernährung 2017. Iss was, Deutschland* [TK-Study on nutrition 2017. Iss was, Germany]. Retrieved from https://www.tkk.de/resource/blob/2009654/1ce2ed0f051b152327ae3f132c1bcb3a/tk-ernaehrungsstudie-2017-data.pdf

Tulodziecki, G. (1998). Entwicklung von Medienkompetenz als Erziehungs- und Bildungsaufgabe [Development of media literacy as an educational task]. *Pädagogische Rundschau, 52*(6), 693–709.

Turner, P. G., & Lefevre, C. E. (2017). Instagram use is linked to increased symptoms of orthorexia nervosa. *Eating and Weight Disorders, 22*, 277–284.

UNESCO. (2016). Media and information literacy. *UNESCO*. Retrieved from http://www.unesco.org/new/en/communication-and-information/mediadevelopment/media-literacy/mil-as-composite-concept

World Health Organization. (1998). *Health promotion glossary*. Geneva: World Health Organization. Retrieved from http://www.who.int/healthpromotion/about/HPR%20Glossary%201998.pdf?ua=1

**About the Authors**

**Claudia Riesmeyer** is a Postdoctoral Researcher at LMU Munich, Department of Media and Communications. Her research fields include media literacy conceptualization, the mediation of media literacy, and effects of missing media literacy. Furthermore, she is interested in qualitative methods.

**Julia Hauswald** completed her bachelor’s degree in Communication Studies, in 2018, at LMU Munich (Department of Media and Communications). She is interested in health communication, adolescents’ mobile media use and their media literacy skills, and self-representation.

**Marina Mergen** completed her bachelor’s degree in Communication Studies, in 2018, at LMU Munich (Department of Media and Communications). She is interested in health communication, adolescents’ mobile media use and their media literacy skills, and self-representation.