

The framing of orthorexia nervosa in Swedish daily newspapers A longitudinal qualitative content analysis

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Abstract

This study explored and elucidated how orthorexia is framed in Swedish daily newspapers with a focus on characteristics of orthorexia. Key questions include: 1) how do the newspaper articles connect exercise with orthorexia? and 2) what trends in depicting exercise in relation to orthorexia do the newspaper articles represent over time? The method used was a longitudinal qualitative content analysis guided by the framing theory. We analyzed 166 articles published between 1998 and 2013. Our analysis revealed that orthorexia originally was framed as an eating disorder and subsequently included unhealthy exercise. Two trend shifts could be identified: in 2004, exercise was added as an element and in 2013 extreme exercise trends were described to influence the increase of orthorexia. The findings indicate that Swedish newspapers extend Bratman's definition and depict orthorexia indiscriminately to describe a range of different behavioral characteristics. These results are discussed in terms of the idea of "healthism" and general health trends in society.

Key words: critical perspective, dietary regulation, excessive exercise, framing theory, healthism, media representations, sports

Introduction

In recent years, "orthorexia nervosa" has received attention in Swedish daily newspapers. This phenomenon has been related to the contemporary tendency of increased medicalization (Vanderycken, 2011). Originally, orthorexia was termed in a non-scientific yoga journal and discussed in an eating disorder (ED) and disordered eating (DE) context by Bratman (1997), who defined it as "a fixation on eating healthy food" (Bratman & Knight, 2000, p. 9) to avoid ill-health and disease. Such a diet (for instance raw food and vegan) is considered to support or lead to a feeling of purity. Orthorexia is described as having an innocent start, for example a desire to avoid disease and improve eating habits and/or general health (Bratman & Knight, 2000). Bratman (2014) suggests that orthorexia should be distinguished from anorexia in the sense that orthorexia is used to categorize an individual with an obsession with purity and food quality whereas anorexics focus on weight control. A year after Bratman termed this phenomenon orthorexia, it was mentioned in Swedish daily newspapers. However, it took nearly a decade before the first scientific article covering orthorexia was published (Donini, Marsili, Graziani, Imbriale, & Cannella, 2004).

Today, scientific knowledge of orthorexia is limited (for a current review of literature see Håman, Barker-Ruchti, Patriksson, & Lindgren, 2015). Most existing research is based on Bratman's description of orthorexia, i.e., obsession with eating a healthy diet (e.g., Varga, Dukay-Szabó, Túry, & van Furth, 2013). A small number of scientific publications have, however, also included exercise and sport (Eriksson, Baigi, Marklund, & Lindgren, 2008; Segura-García et al., 2012; Varga, Konkolÿ-Thege, Dukay-Szabó, Túry, & van Furth, 2014). Based on these limited publications, it is not clear if sport and exercise should be related to orthorexia, and if it were, what role these activities might have in relation to orthorexia. In addition, Bratman (2015) recently acknowledged that people regarded to have orthorexia can be exercise enthusiasts, although exercise does not constitute a definitional part of the phenomenon. Orthorexia does not have a designated diagnostic code, and because the scientific knowledge is limited, the news media were given occasion to dominate the conversation and be an influential actor in shaping how orthorexia would be represented and defined (cf. Entman, 1993). In turn, this influences the establishment, meaning and understanding of orthorexia. If Swedish news media portrays orthorexia in a different manner compared

to research and conceptual descriptions, different knowledge and understandings will circulate in Sweden. This can confuse people as to "what orthorexia is" and may complicate communication and collaboration between professionals of different contexts (KÄTS, 2015). Moreover, recommended treatments might fail or even be harmful if it is unclear what disorders and phenomena health care professionals are referring to or treating. The news media play a significant role in conveying information about health and ill-health to lay people (Lupton, 1999) and partly also to professionals (Lyons, 2000). They select and present information that constructs and shapes meanings and values (Schrøder, 2002), which contributes to the construction of health knowledge and understanding (De Brún, McCarthy, McKenzie, & McGloin, 2014; cf. Entman, 1993). This process of selection means that news media have the power to influence how different problems are defined and represented (Entman, 1993), and this study aims to increase knowledge regarding how daily newspapers describe orthorexia by taking a societal perspective and exploring how the relationship to exercise and trend shifts are represented. More specifically, the aim of this study was to explore and elucidate how orthorexia is framed in Swedish daily newspapers with focus on the characteristics of orthorexia. Key questions include: 1) how do the newspaper articles connect exercise with orthorexia? and 2) what trends in depicting exercise in relation to orthorexia do the newspaper articles represent over time?

Orthorexia nervosa, eating disorders and disordered eating

Today, there is a limited number of scientific articles on orthorexia (Varga et al., 2013). A small proportion of these research publications have included exercise and sport. These publications investigate whether there is a relationship between exercise frequency and duration and high scores on questions regarding orthorexia that were proposed by Bratman, i.e., Bratman's orthorexia test (BOT; Eriksson et al., 2008), the relationship between orthorexia and engagement in sport activities (Varga et al., 2014), and the occurrence of orthorexia nervosa in athletes (Segura-García et al., 2012). The research does not, however, present a clear picture because the results are disparate and inconsistent (Varga et al., 2013).

According to existing international classifications of diseases and health problems, orthorexia is not a medical diagnosis. Whether it should be seen as a new disease is a question raised by medicine (Rössner, 2004), however, there is no consensus of whether orthorexia should be consid-

ered as a unique ED (Brytek-Matera, 2012), or if it can be seen as a social trend (McInerney-Ernst, 2011). What research findings do show is that orthorexia shares similarities with both anorexia nervosa and obsessive compulsive disorders (OCD; Koven & Abry, 2015).

Moreover, scholars have reported that athletes may be at greater risk for scoring high on orthorexia questionnaires in comparison to sedentary individuals (Segura-García et al., 2012). This however must be interpreted with care since the questionnaires for orthorexia (ORTHO-15) fails to measure negative or detrimental behaviors (i.e., orthorexia). Instead, ORTHO-15 appears to measure a sub-culture (Håman et al., 2015) with exaggerated interest in eating "right" (Missbach et al., 2015). However, other research shows that tendencies for EDs and DE are more common among women who exercise and participate in sports than among nonexercisers (Holm-Denoma, Scaringi, Gordon, Van Orden, & Joiner, 2009) and among elite athletes in specific sports (Sundgot-Borgen & Torstveit, 2004). In addition, research has also shown that compulsive exercise plays a central role within ED contexts (Meyer, Taranis, Goodwin, & Haycraft, 2011). When unhealthy exercise occurs in combination with an ED, scholars have termed it secondary exercise dependence (Allegre, Souville, Therme, & Griffiths, 2006; de Coverley Veale, 1987), which is described as a motivation to exercise for controlling body composition. Primary exercise dependence that occurs without EDs is defined as "a craving for leisure-time physical activity, resulting in uncontrollable excessive exercise behavior, that manifests in physiological (e.g., tolerance/ withdrawal) and/or psychological (e.g., anxiety, depression) symptoms" (Hausenblas & Symons Downs, 2002, p. 90). Exercise dependence is also controversial (Keski-Rahkonen, 2001) and like orthorexia, it is not registered as a diagnosis.

Framing theory and a contemporary health ideology – healthism

The analysis in this paper will be guided by framing theory (Entman, 1993). Framing refers to selection and salience. For instance, journalists depict different topics or issues by selecting information and making them more prominent (cf. Entman, 1993). Thus, journalists' framing of activities contribute to how orthorexia is represented, described and depicted, including how information and knowledge is created and reproduced. Framing captures the power of news media texts as they detail what people should pay attention to. It also contributes to increasing

the likelihood of specific understandings. Frames can focus on defining a problem, casual interpretation, moral evaluation and/or treatment recommendation (Entman, 1993). Within this study, however, the focus will be on defining a problem because orthorexia is still under construction.

This power of framing cannot be seen as an isolated process within individual newspapers, nor is it a one-way communication to laymen. Rather, framing is part of a larger societal and cultural context, in which discourses are modified, produced and reproduced (Pan & Kosicki, 1993). Thus, framing is inherently linked to socio-cultural contexts such as general societal health trends, including how health is understood at particular points in time. Given this, we also discuss how newspapers frame orthorexia in terms of general societal health trends. Within this discussion, the idea of healthism will be used to consider how a contemporary health ideology can influence how Swedish newspapers portray orthorexia. In Western developed societies, healthism has become accepted as a health ideology and is reflected in popular media, health promotion efforts (Lee & Macdonald, 2010) and advertising (Dworkin & Wachs, 2009).

Historically, perceptions of what health is and who is responsible for ensuring good health have evolved (Gard & Wright, 2001). In Sweden, governmental agencies used to have clear responsibility for the health of its citizens; today, however, they are described as having a less definite role in prescribing health regimes (Palmblad & Eriksson, 2014). During the 1970s, there was an increased emphasis on individual responsibility for health (Crawford, 1980). Crawford (1980) describes how a "new health consciousness" emerged during this decade. He termed this form of consciousness "healthism". In contrast to previous directions, the healthist perspective assumes that health can be achieved in an unproblematic way through individual discipline and moral conduct – primarily through regular exercise (Kirk & Colquhoun, 1989) and healthy eating (Wright, O'Flynn, & Macdonald, 2006). From this perspective, health is linked to self-control, which is based on the assumption that health ought to be pursued and achieved by adopting disciplined activities or controls such as diet regulation and exercising. Indeed, health is considered to require self-control, commitment and will power (Crawford, 1984). During this phase of "new health consciousness", the responsibility for achieving health became situated at the individual level (Crawford, 2006; Kirk & Colquhoun, 1989).

Scholars have argued that healthism can be linked to discourses relating to an attractive and youthful body, which contemporary consumer culture emphasizes (Wright et al., 2006). In Western cultures, a slender body is perceived to represent health and to be a symbol of good living. An obese body, in contrast, represents ill-health and implies laziness, emotional weakness and unattractiveness (Crawford, 1987). Indeed, healthism contains moral obligations that tell individuals how to live their lives and construct their identities (Wright et al., 2006). This moralizing of healthy and unhealthy behaviours is, on the one hand, productive in that it influences individuals to adopt health practices. On the other hand, however, health behaviour may become excessive and create ill-health such as ED and exercise dependence. We thus suggest that a differentiation of healthism is appropriate; i.e., to differentiate between two sub-forms of healthism, "moderate healthism" and "aggressive healthism". With the former, we understand healthism to influence health behaviors, exercise and eating, i.e., taking care of oneself. With the latter, we understand healthism to be an ideology that influences individuals' health-related behavior (cf. Lee & Macdonald, 2010; Rich & Evans, 2009). Examples of aggressive healthist behaviour may include undertaking self-surveillance and detrimental behaviours (and even destructive efforts) in order to live healthfully, and attempting to change the body to conform to certain ideals (cf. Rich & Evans, 2009). Indeed, the two forms of healthism might address different strata in the population that reflect individuals' backgrounds, experiences etc.

Method

We used a longitudinal qualitative content analysis to explore and elucidate how orthorexia is framed in Swedish daily newspapers, and to identify changes in exercise trends over time. The method is suitable for interpreting content and contextual meaning and to gain an overview of trends over time or to identify changes (Roller & Lavrakas, 2015).

Data collection and sample

The material draws on a sample of Swedish newspaper articles and newspaper supplements. The criteria were for the texts to have been published in daily free and paid newspapers with an online publication out-

let. Health-, diet- and sport-related magazines were excluded because they have an audience too specific for this study. Daily newspapers cater to a wider audience and contribute to constructing the concept of orthorexia for the general public. Indeed, twice as many Swedes read daily newspapers versus magazines and daily newspapers are the third largest media outlet (Mediebarometer 2012, 2013). The newspaper articles were collected using the Swedish database "Mediearkivet". This is the largest digital news archive for Nordic countries. The database includes most Swedish major and provincial daily newspapers. All newspaper articles that contained the terms orthorexia nervosa, orthorexia and/or orthorexi were read. Inclusion criteria were explicit use of the concept of orthorexia, i.e., defining, using and explaining the term. Articles that described similar behaviors without specifically referring to orthorexia were excluded. The empirical material consists of all applicable articles that were published online between January 1998 and December 2013. These years were selected because 1998 was the year when the first daily newspaper article about orthorexia was published in Sweden.

The articles were published in 60 different newspapers throughout Sweden, including five national papers. The newspapers range from small local papers with 7,000 readers (www.sveamedia.se) to major national daily newspapers with 932,000 readers (TNS Sifo, 2012). A total of 174 articles were read and 166 were included. Eight articles were excluded because they did not fit the inclusion criteria. After the first article in 1998, no articles were published until 2001. The number of articles started to increase in 2004. One interpretation for that is that orthorexia was introduced in an article published by the Swedish Medical Association (Rössner, 2004). From 2008 onwards, the number of publications increased as a national news agency provided complete articles to various local newspapers, i.e., articles were bought and published in different local newspapers. For this reason, several articles are identical, but were published in different parts of Sweden. Since 2008, 10 to 31 articles were published per year (see figure 1, overleaf).

The included articles are of various types: news and feature articles (121), short paragraphs (9), letters to the editor (10), columns or chronicles (10), and television and radio program schedules (16). Sometimes orthorexia is in focus throughout the whole article; in other cases, orthorexia is mentioned or presented in part. In 58 of the 166 articles, the content was identical with one or more articles, although they were published in different parts of Sweden. Thus, 108 articles with unique con-

tent were analyzed. The length of the articles varies from short notices to a couple of pages. The articles usually include one or more of the following topics: interviews with people who experienced orthorexia; expert opinions about the phenomenon and its causes (for instance nutritionists, therapists at eating disorder units, researchers in the area of obesity and diagnosed EDs); other public "facts" about the phenomenon; criteria for "self-diagnosis"; and information about how others should intervene to help people who suffer from orthorexia.

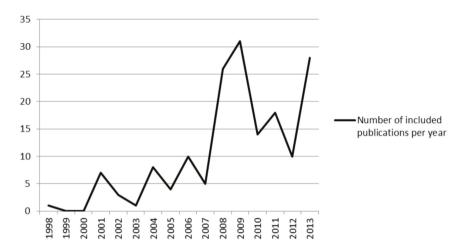


FIGURE 1. Number of newspaper articles matching the inclusion criteria per year.

Data analysis

The newspaper articles were analyzed using a qualitative content analysis technique suggested by Graneheim and Lundman (2003). The introductory analytic phase (i.e., codes, categories and subthemes) was conducted on a manifest level. In the later part of the analysis, when the overall theme was formulated and arranged, the idea of healthism was adopted to interpret the content of the subthemes (i.e., latent level). The description of the analytic procedure may look like a linear process, but analysis actually involved back-and-forth analysis between different parts and the whole. The analysis was guided by framing theory and conducted as follows:

- a) the articles were read to obtain an overall impression;
- b) the articles were re-read to select meaning units that responded to the aim of the study;

- c) meaning units were condensed;
- d) the condensed meaning units were coded into keywords or key phrases that reflected the contents;
- e) the codes were compared, sorted and arranged into tentative categories based on similarities and differences;
- f) the tentative categories were reviewed and discussed several times and then revised and encoded into nine categories including four in one subtheme and five in another subtheme, which creates manifest content;
- g) "healthism" was adopted to formulate and arrange an overall theme at a latent level and was used to interpret the content within the subthemes; and finally,
- h) the newspapers were analyzed to identify when and how exercise became related to orthorexia and to gain a temporal overview of the trends and shifts in trends.

All quotes that are included were translated into English by the first author.

Results

The overall theme "Orthorexia is originally framed as an eating disorder and subsequently included unhealthy exercise" describes how orthorexia is depicted in the newspapers. This theme outlines that orthorexia is mainly characterized by the elements "eating disorder" and "unhealthy exercise". These elements are discernable in the newspapers as the journalists a) differentiate the characteristic elements in orthorexia by comparing it to diagnosed EDs, and b) describe orthorexia by depicting characteristic behavior as obsessive and controlling, which constitute the two subthemes.

Characteristics of orthorexia is differentiated by comparisons to diagnosed eating disorders

In the newspapers, orthorexia is termed as an ED or referred to as being a part of the eating disorder not otherwise specified (EDNOS in Diagnostic and Statistical Manual of Mental Disorders, 4th edition). When journalists portrayed orthorexia as an eating disorder, they did so

by highlighting similarities and differences between orthorexia and diagnosed EDs, mostly anorexia and bulimia. Some articles differentiated orthorexia from anorexia athletica, for instance: "For those with anorexia athletica, the performance is the driving force, while for those with orthorexia it is to eat healthily" (*Svenska Dagbladet*, 13 February 2002). Regarding similarities between orthorexia and diagnosed EDs, newspaper texts mainly contribute to the argument that orthorexia is an eating disorder. Thus, this section will focus on differences between orthorexia and diagnosed EDs because they bring to the fore the characteristics of orthorexia.

In the newspapers, the relationship between orthorexia and diagnosed EDs is described by highlighting differences. The differences involve the categories "pursuit of health", "fanatic exercise", "food quality", "pursuing a fit body" and "not focused on women". The fanatic *pursuit of health* is portrayed as a significant aspect and it is used to distinguish orthorexia from diagnosed EDs where health is not an issue. Individuals who are thought to have orthorexia share a desire to live as healthy as possible. With regard to *fanatic exercise*, the difference is not described in detail, but this feature marks a clear difference between orthorexia and diagnosed EDs where fanatic exercise is not described as part of the diagnosis. The crucial difference with regard to food is that with orthorexia, *food quality* is more important than quantity. This difference is commonly noted as follows:

While a person with anorexia or bulimia is blinded by the amount of food, it is the quality of food that controls the orthorexic. (*Expressen*, 17 June 2004)

Pursuing a fit body is also depicted as a difference between, for instance, anorexia and orthorexia. The newspapers describe how anorexic individuals strive for a thin body, whereas orthorexic individuals strive for a fit body. Another difference between orthorexia and diagnosed EDs is that the former does not focus on women. The articles state that diagnosed EDs mostly affect women, which is not the case with orthorexia. In newspapers, orthorexia is presented as a gender-neutral issue or an issue that mainly affects men. However, the voices heard in the articles are predominantly from women. The explanation provided by the newspaper articles is that:

Men do not want to be associated with women-only issues, or psychiatry, and for that matter, the term orthorexia was created, meaning correct eating habits. It sounds more legitimate to focus on eating right [than on disordered forms of eating] (*Göteborgs-Posten*, 2005-03-29).

"Orthorexic" behaviors are characterized by obsession and control

In the sampled newspaper articles, control is commonly highlighted as a dominant attribute. Descriptions of control reflect obsessive behaviors. That is, the need for control occupies most of daily life or is an obsessive quest to gain control of both body and life. Within this subtheme, orthorexia is described as having an innocent beginning. The articles highlight that changes in food and/or exercise are made in order to live a more healthy life, but that these changes can subsequently spin out of control and lead to an unhealthy obsession; controlled behaviors can turn into obsession. The newspapers note that exercising and/or healthy eating habits can lead to a positive feeling of being in control. In addition, obsessive behaviors are highlighted as typical of orthorexia without being linked to controlled behaviors, i.e., an obsession with healthy foods and exercise. This subtheme includes the following categories; "food and exercise regulation", "compensatory behaviors", "regulating the body" and "sacrificing social activities".

Food and exercise regulation includes both control and obsessive behaviors. Obsessive behaviors refer to the comprehensive and minute organization of "orthorexic" lives. Food and exercise regulation are also independently portrayed as characteristics of orthorexia. Exercise regulation is described as extreme or fanatic, and is sometimes equated with exercise dependence. Exercise amount and duration are considered illustrative of this factor.

Exercise dependence, also known as orthorexia is not a scientifically established diagnosis. (*Svenska Dagbladet*, 24 October 2010)

Food regulation involves an obsession with the contents of food and a need to control these contents as well as the regularity of meals, such as eating at scheduled times, avoiding spontaneous eating, weighing food or only eating specific foods that are considered healthy. Content is described as more important than taste. Healthy foods are often low-fat and organic, particularly vegetables. Other foods are avoided or prohib-

ited, for instance refined sugar, salt and fat. Meals are planned several days ahead, while consumption should occur at certain intervals such as every third hour. The following representation illustrates the orthorexic commitment to rhythm and control:

An orthorexic individual has an extreme need for control. They have to eat at exactly the right time, cannot eat spontaneously and only eat certain types of food. (*Skaraborgs Allehanda*, 19 February 2009)

This need for control is also reflected in the *compensatory behaviors* that are described as general orthorexic characteristics. The articles emphasize that the motive is to compensate for unhealthy foods that have been or will be eaten.

The newspapers write that *regulating the body* represents a desire to control the body, but also an obsessive attempt to get control. In addition, the control is also depicted as an achievement.

It was even better when she [an individual who is considered to have orthorexia] managed to cut down on the food and exclude things that she usually liked. Now she had definitely gained power over her own body. (*Göteborgs Posten*, 05 September 2010)

Newspapers note that *sacrificing social activities* is an additional "orthorexic" characteristic. Exercise and healthy eating are prioritized or are all-consuming, though this characteristic is described with varying emphases, such as being unable to meet friends and family if it involves missing exercise, or being totally without a social life. Orthorexia involves attempts to avoid specific contexts involving food because of the risk of being served something that does not fit the food plan – this is a characteristic sign of obsessive behavior. Accordingly, "orthorexics" avoid eating in restaurants because their obsessive behaviors require that they bring their own dinner. The total preoccupation with food and/or exercise is also prohibitive to a social life because it involves such a large commitment of time and energy.

Orthorexics plan every minute to have time to eat and exercise right. Some hesitate to go to a party, because they may be offered something that does not fit into their diet. (*Sydsvenska Dagbladet*, 04 August 2008)

Timeline – trends and shifts in trends regarding exercise and descriptions of orthorexia

The exercise trend shifts in relation to orthorexia can be localized to 2004 and 2013 (see figure 2, below). In 1998, the first Swedish daily newspaper article about orthorexia was published. By then, orthorexia was depicted as a new eating disorder with focus on food quality (see figure 2) based on Bratman's (1997) definition. In 2002, exercise was mentioned for the first time, but it was in 2004 that the first trend shift was localized. In 2004, exercise is added to orthorexia (figure 2) in a more broad sense. Although some articles in 2004 and later still only focus on food, after this year orthorexia has been mainly portrayed as a fixation with healthy eating *and* obsessive exercise. In 2011, the fixation with low body weight was also added. This definition is found in several articles until the end of the data collection period for this study in 2013.

The second trend shift was localized in 2013. Before 2013, newspapers mainly focused on general societal health trends and on media overwhelming people with various health and lifestyle advice. This was described as influencing the increase in orthorexia. Since 2013, newspapers still focus on general health trends and different media outlets, but they have also begun to report that more extreme exercise activities and events have appeared in society in general (figure 2). The trends have changed and involve more tough exercise trends and ideologies involving fit inspiration (fitspo), that builds on ideals and values such as "[u]nless you faint, puke or die – keep working" or "[s]weat is fat crying" (*Dagens Nyheter*, 24 February 2013). These trends create unhealthy ideals that can lead to orthorexia.

The most devoted fitspo followers may be at risk of developing orthorexia, excessive health fixation (*Dagens Nyheter*, 24 February 2013).

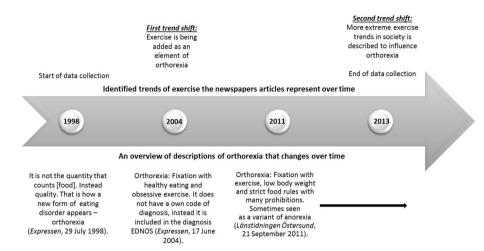


FIGURE 2. A timeline of identified trends of exercise and changes in descriptions regarding orthorexia in Swedish daily newspapers 1998–2013.

Discussion

The newspapers depict orthorexia to start innocently, such as when changes in diet and/or exercise are made in order to live a more healthy life. This framing of orthorexia illustrates that it might start as a moderate healthist ideal (cf. Crawford, 1984). The representations of "orthorexic" behaviors are also described in terms of control before they turn into obsession. Thus, behaviors framed in terms of control reflect moderate healthism, since health is assumed to require self-control, commitment and will power to be conquered through active actions and choices such as food and exercise (Crawford, 1984). Moreover, when orthorexia is described as having turned into an obsession, it can be interpreted as the newspapers portray orthorexia as a negative consequence of aggressive healthism. Thus, their representations of behaviors reflect constrained behavior and self-surveillance as tools to achieve health, such as food and exercise regulation. A similar pattern appears when orthorexia is portrayed in terms of an ED because it can be tied to destructive efforts in the attempt to achieve health (cf. Rich & Evans, 2009).

The newspapers originally framed orthorexia as an obsession with healthy food, which replicates Bratman's description from 1997. In con-

junction with the 2004 trend shift, however, the newspapers' representations began to include unhealthy exercise. With this inclusion of exercise, Sweden moved away from Bratman (1997; Bratman & Knight, 2000) and the contemporary scientific understanding of orthorexia as an obsession with diet (cf. Koven & Abry, 2015). This is not to say that individuals thought to have orthorexia cannot exercise. Indeed, it is reasonable to assume that they are physically active and exercise. It may even be of obsessive character (for example exercise dependence; Bratman, 2015). Swedish newspapers' portrayals, however, did not depict it in this way, but included different health-related behaviors without distinguishing between them. In some cases, orthorexia was even *equated* with exercise dependence. These representations conflict with current scientific understanding, which at present includes unhealthy exercise as a feature of anorexia and exercise dependence and not orthorexia (cf. Hausenblas & Symons Downs, 2002; Koven & Abry, 2015).

Regarding the two forms of healthism, the newspapers' reporting of exercise trends in orthorexia reflects social trends over time, such as general changes within Swedish health and exercise behavior. In conjunction with the first trend shift in 2004, a social trend regarding exercise in Swedish society relates to, for instance, "Göteborgsvarvet", the world's largest half marathon race. In 2004, after a slight decline between 2000 and 2003 (www.goteborsgvarvet.se), participation numbers increased. Indeed, running is an activity that has increased in popularity and is claimed to improve health (Abbas, 2004). During the same time period, fitness centers experienced a significant increase in participation in their activities (Andersson, 2001). The second trend shift in 2013 refers to more extreme exercise trends, which are framed as a consequence of aggressive healthism. Since this shift, the newspapers indicate that the new exercise trends influence the increase of orthorexia. These exercise trends involve an ideal where it is no longer sufficient to exercise regularly for general exercisers; instead more extreme forms of exercise are considered ideal. This emphasis on extreme exercise is in line with Jönsson's (2009) discussion regarding contemporary health discourses, such as healthist ideals of physical and moral strength, which have become more aggressive along with the increasing commercial fitness culture. Indeed, some body techniques in the fitness culture involves an ethos based on these values. Thus, more extreme exercise trends that the newspapers describe reflect not only being in control, but also becoming strong and invincible, which can be tied to changing ideals and the ethos of physical and moral strength (cf. Andreasson & Johansson, 2015; Jönsson, 2009). New forms of extreme exercise events emerged in Sweden in 2013, including the first public obstacle course races (OCR) organized by Tough Viking (www.toughviking.se) and Toughest (www.toughest.se). Underlying these events were values such as "pain, exhaustion, no fear, and get dirty" (www.toughest.se), which can be seen to represent the ethos of exercising.

Our results demonstrate that newspapers representations do not base their text on Bratmans (2001) definition and current research findings (Koven et al., 2015; Håman et al., 2015). Instead, journalists appear to base several of their arguments on anecdotal evidence. In addition, the newspapers seem to be influenced by contemporary health ideologies, such as healthism as discussed above. This reinforces our notion that the newspapers' framing of orthorexia can be interpreted as a negative consequence of aggressive healthism along with general societal trends regarding health and exercise, such as those based on an increasing number of participants in fitness center activities, running events, and new exercise events like Tough Viking. Against this backdrop, newspapers seem to have portrayed orthorexia with a limited or no connection to scientific research results, nor to Bratman's (1997; Bratman & Knight, 2000) description. One reason for this gap is that the scientific knowledge is limited. Orthorexia has not yet been established as a concept with its own diagnostic code.

Conclusions and Implications

This study demonstrates that Swedish daily newspapers originally framed orthorexia as an eating disorder and subsequently included unhealthy exercise. The first trend shift involves the addition of exercise in 2004. The second trend shift describes more extreme exercise trends influencing the newspapers' descriptions of orthorexia in 2013. We argue that the second trend shift is depicted as a consequence of aggressive healthism and is based on the ideals of more abrasive physical and moral strengths. These findings indicate that Swedish newspapers extend Bratman's initial definition and depict orthorexia indiscriminately as a range of different behavioral characteristics including exercise dependence. Therefore, it is important to problematize and create awareness of how newspapers frame orthorexia within health contexts, health care settings, and related

education. If this is not done, misunderstandings and miscommunication may complicate collaboration and detriment best possible treatment strategies.

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References

- Abbas, A. (2004). The embodiment of class, gender and age through leisure: a realist analysis of long distance running. *Leisure Studies*, 23(2), 159-175.
- Allegre, B., Souville, M., Therme, P., & Griffiths, M. (2006). Definitions and measures of exercise dependence. *Addiction research & theory*, 14(6), 631–646.
- Andersson, O. (2001). Svenska folkets träning med motionsgympa, aerobics och styrketräning [Exercise in Sweden: "gympa," aerobics and fitness]. Stockholm: Riksidrottsförbundet.
- Andreasson, J., & Johansson, T. (2015). From exercise to "exertainment" Body techniques and body philosophies within a differentiated fitness culture. *Scandinavian Sport Studies Forum*, 6, 27-45.
- Bratman, S. (1997). Original Essay on Orthorexia. Retrieved from Orthorexia Nervosa Homepage website: http://www.orthorexia.com/original-orthorexia-essay/
- Bratman, S. (2014, January 23). What is Orthorexia? Retrieved August 3, 2015 at http://www.orthorexia.com/what-is-orthorexia/
- Bratman, S. (2015, October 5). Orthorexia: An Update. Retrieved October 12, 2015 at http://www.orthorexia.com/orthorexia-an-update/
- Bratman, S., & Knight, D. (2000). *Health food junkies. Orthorexia Nervosa: over-coming the obsession with healthful eating.* New York: Random House Inc.
- Brytek-Matera, A. (2012). Orthorexia nervosa an eating disorder, obsessive-compulsive disorder or disturbed eating habit? . *Archives of Psychiatry & Psychotherapy*, 14(1), 55-60.
- Crawford, R. (1980). Healthism and the medicalization of everyday life. *International Journal of Health Services*, 10(3), 365-388.
- Crawford, R. (1984). A cultural account of health. In J. B. McKinlay (Ed.), *Issues in the political economy of health care* (pp. 61-103). London and New York: Tavistock.
- Crawford, R. (1987). Cultural influences on prevention and the emergence of a new health consciousness. In N. Weinstein (Ed.), *Taking care. Understanding and encouraging self-protective behavior* (pp. 95-113). Cambridge: Cambridge University Press.

- Crawford, R. (2006). Health as a meaningful social practice. health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine, 10 (4), 401-420.
- De Brún, A., McCarthy, M., McKenzie, K., & McGloin, A. (2014). Examining the Media Portrayal of Obesity Through the Lens of the Common Sense Model of Illness Representations. *Health Communication*, 0, 1–11.
- De Coverley Veale, D. M. W. (1987). Exercise Dependence. *British Journal of Addiction*, 82(7), 735-740.
- Donini, L. M., Marsili, D., Graziani, M. P., Imbriale, M., & Cannella, C. (2004). Orthorexia nervosa: a preliminary study with a proposal for diagnosis and an attempt to measure the dimension of the phenomenon. *Eating and weight disorders*, *9*(2), 151-157.
- Dworkin, S. L., & Wachs, F. L. (2009). *Body Panic: Gender, Health, and the Selling of Fitness*. New York: New York University Press.
- Entman, R. M. (1993). Framing: Toward Clarification of a Fractured Paradigm. *Journal of Communication*, 43(4), 51-58.
- Eriksson, L., Baigi, A., Marklund, B., & Lindgren, E.-C. (2008). Social physique anxiety and sociocultural attitudes toward appearance impact on orthorexia test in fitness participants. *Scandinavian Journal of Medicine & Science in Sports*, 18(3), 389-394.
- Gard, M., & Wright, J. (2001). Managing Uncertainty: Obesity Discourses and Physical Education in a Risk Society. *Studies in Philosophy and Education*, 20(6), 535-549.
- Graneheim, U. H., & Lundman, B. (2003). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24, 105-112.
- Hausenblas, H. A., & Symons Downs, D. (2002). Exercise dependence: a systematic review. *Psychology of Sport and Exercise*, *3*, 89-123.
- Holm-Denoma, J., Scaringi, V., Gordon, K., Van Orden, K., & Joiner, T. J. (2009). Eating disorder symptoms among undergraduate varsity athletes, club athletes, independent exercisers, and nonexercisers. *International Journal of Eating Disorders*, 42(1), 47-53.
- Håman, L., Barker-Ruchti, N., Patriksson, G., & Lindgren, E.-C. (2015). Orthorexia nervosa: An integrative literature review of a lifestyle syndrome. *International Journal of Qualitative Studies on Health and Well-being*, 10, 26799.
- Jönsson, K. (2009). Fysisk fostran och föraktet för svaghet: En kritisk analys av hälsodiskursens moraliska imperativ [Physical nurturing and the contempt of weakness: A critical analysis of the health discourse moral imperatives]. *Educare, Malmö University, 1*, 6-20.
- Keski-Rahkonen, A. (2001). Exercise Dependence a Myth or a Real Issue? *European Eating Disorders Review*, 9, 279-283.
- Kirk, D., & Colquhoun, D. (1989). Healthism and Physical Education. *British Journal of Sociology of Education*, 10(4), 417-434.
- Koven, N. S., & Abry, A. W. (2015). The clinical basis of orthorexia nervosa: emerging perspectives. *Neuropsychiatric Disease and Treatment*, 11, 385-394.

- KÄTS. (2015). Oklarheter och sanningar om Ortorexi Retrieved Juli 14, 2015 at http://www.atstorning.se/forskning-utbildning-2/aktuella-forskningsstudier/oklarheter-och-sanningar-om-ortorexi/
- Lee, J., & Macdonald, D. (2010). 'Are they just checking our obesity or what?' The healthism discourse and rural young women. *Sport, Education and Society,* 15(2), 203-219.
- Lupton, D. (1999). Editorial: Health, illness and medicine in the media. *Health*, *3*(3), 259–262.
- Lyons, A. C. (2000). Examining Media Representations: Benefits for Health Psychology. *Journal of Health Psychology*, *5*(3), 349-358.
- McInerney-Ernst, E. M. (2011). Orthorexia Nervosa: real construct or newest social trend? (Doctor of philosophy Doctoral Dissertation), University of Missouri-Kansas City, Kansas City, Missouri.
- Mediebarometer 2012. (2013). Medienotiser no. 1. Gothenburg: NORDICOM-Sweden, University of Gothenburg.
- Meyer, C., Taranis, L., Goodwin, H., & Haycraft, E. (2011). Compulsive Exercise and Eating Disorders. *European Eating Disorders Review*, 19(3), 174-189.
- Missbach, B., Hinterbuchinger, B., Dreiseitl, V., Zellhofer, S., Kurz, C., & König, J. (2015). When Eating Right, Is Measured Wrong! A Validation and Critical Examination of the ORTO-15 Questionnaire in German. *PLoS ONE*, 10(8), e0135772.
- Musolino, C., Warin, M., Wade, T., & Gilchrist, P. (2015). 'Healthy anorexia': The complexity of care in disordered eating. *Social Science & Medicine*, 139, 18-25.
- Palmblad, E., & Eriksson, B. E. (2014). Kropp och politik: hälsoupplysning som samhällspegel. [Body and Politics: Health education as a social mirror]. Stockholm Carlsson.
- Pan, Z., & Kosicki, G. M. (1993) Framing analysis: An approach to news discourse, *Political Communication*, 10 (1), 55-75.
- Rich, E., & Evans, J. (2009). Now I am NObody, see me for who I am: the paradox of performativity. *Gender and Education*, 21(1), 1-16.
- Roller, M. R., & Lavrakas, P. J. (2015). Qualitative Content Analysis. In M. R. Roller & P. J. Lavrakas (Eds.), *Applied Qualitative Research Design. A Total Quality Framework Approach* (pp. 230-286). New York: The Guilford Press.
- Rysst, M. (2010). "Healthism" and looking good: Body ideals and body practices in Norway. *Scandinavian Journal of Public Health*, 38(5), 71-80.
- Rössner, S. (2004). Orthorexia nervosa en ny sjukdom? [Orthorexia nervosa a new disease?]. *Läkartidningen*, *37*(101), 2835.
- Schrøder, K. C. (2002). Discourses of fact. In K. B. Jensen (Ed.), *A Handbook of Media and Communication Research. Qualitative and Quantitative Methodologies* (pp. 98-116). London: Routledge.
- Segura-García, C., Papaianni, M. C., Caglioti, F., Procopio, L., Nisticò, C. G., Bombardiere, L., . . . Capranica, L. (2012). Orthorexia nervosa: A frequent eating disordered behavior in athletes. *Eating and weight disorders*, 17(4), e226-233.

- Sundgot-Borgen, J., & Torstveit, M. K. (2004). Prevalence of Eating Disorders in Elite Athletes Is Higher Than in the General Population. *Clinical Journal of Sport Medicine*, 14(1), 25-32.
- TNS Sifo. (2012). Orvesto konsument 2012 Helår (pp. 26). http://www.tns-sifo.se.
- Vanderycken, W. (2011). Media Hype, Diagnostic Fad or Genuine Disorder? Professionals' Opinions About Night Eating Syndrome, Orthorexia, Muscle Dysmorphia, and Emetophobia. *Eating Disorders: The Journal of Treatment & Prevention*, 19(2), 145-155.
- Varga, M., Dukay-Szabó, S., Túry, F., & van Furth, E. F. (2013). Evidence and gaps in the literature on orthorexia nervosa. *Eating and weight disorders*, 18, 103-111.
- Varga, M., Konkolÿ-Thege, B., Dukay-Szabó, S., Túry, F., & van Furth, E. F. (2014). When eating healthy is not healthy: orthorexia nervosa and its measurement with the ORTO-15 in Hungary. *BMC Psychiatry*, 14(59), Epub ahead of print 28 February 2014.
- Wright, J., O'Flynn, G., & Macdonald, D. (2006). Being Fit and Looking Healthy: Young Women's and Men's Constructions of Health and Fitness. *Sex Roles*, 54(9-10), 707-716.