Az orthorexia nervosa előfordulása a fitnesziparban, különösen tekintettel az egészségkultusz jelenségére – irodalmi áttekintés

The presence of orthorexia nervosa in the fitness and health practice – review

Introduction

The rise of eating disorders (anorexia nervosa, bulimia nervosa and binge eating disorder) in Western culture has been described as a modern epidemic. As broader subclinical eating disorder symptoms for other specified feeding or eating disorders (OSFED) keep appearing, proposals for diagnostic criteria by researchers are coming from both medical and non-medical fields. Descriptions and explorations of orthorexia nervosa (ON), also known as health food addiction are part of this emerging academic literature.

The term ON was first mentioned in a non-scientific journal by physician Steven Bratman in 1997, defining it as “the health food addiction”, or the obsession with proper food and developing extremism towards certain eating habits. It is not yet accepted as a genuine mental disorder and still waiting for decision whether or not it should be part of the next diagnostic systems. Being a “health-junkie” will only become pathological if obsessive thinking, compulsive behavior, self-punishment and escalating restriction take over the individual’s everyday thoughts. The aim of this study is to provide an overview and synthesis of the current body of literature about the relationship between fitness environments and the prevalence of orthorexia.

Results

We used the online academic databases of Pubmed, ScienceDirect and Web of Science to obtain the selected eight peer reviewed, scientific articles then analyzed them descriptively. We found that health as a moral imperative is present in western culture, often presented in the form of misleading information. This can bring anxiety because of obeying the socioculturally dictated rules, nek vét ételekkel való megszállottságot vagy ebből fakadó beszükkülést hozhat elő.

Következtetések:

The fitnessz paper dolgozóknak tudatosítani kell munkaterületük magas évsé- és testkép- zavarokra hajlamostó rizikofaktorán. Az erre való felkészítés és további kutatómunka főköszöntői voltak feladat tehát a jövőre nézve.

Kulcsszavak: orthorexia nervosa, szubklinikai evészavar, irodalmi áttekintés, testkép

Background and aims:
Orthorexia nervosa, also known as health food addiction was first described in 1997. Although it is not part of the DSM as an eating disorder, it may become pathological if obsessive thinking, compulsive behavior, self-punishment and escalating restriction take over the individual's everyday thoughts. The aim of this study is to provide an overview and synthesis of the current body of literature about the relationship between fitness environments and the prevalence of orthorexia.

Measurements and assessment

Bratman’s orthorexia test (BOT) consists of ten yes/no questions (Bratman and Knight, 2000). A few years later, Italian researchers created ORTO-15 to identify ON based on Bratman’s theories (Donini et al., 2004), investigating the obsessive attitude of the subjects in choosing, buying, preparing and consuming food. Most of the reviewed articles was based on statistics using ORTO-15.

In 2013, Gleaves et al. developed the 21-item Eating Habits Questionnaire. Judging three interrelated internally consistent ON components (healthy eating habits, problems resulting from those behaviors and positive feelings linked to those behaviors), it demonstrated high internal consistency. The recently developed Düsseldorfer Orthorexie Skala (DOS), which is currently available only in German, has also been used (Barthels et al. 2015).

Healthism

The notion of healthism was termed to describe individual responsibility for achieving and maintaining health (Crawford, 1980). While striving for a healthier body and preventing ill-health through sports and good nutrition has endless benefits, healthism and thinness is presented as a moral obligation that may serve as a risk of also developing addictive and disordered eating behaviors in gym communities. Exercise and diet are the main tools of health practice: instead of food being “just food”, it has become a quest and obsession.

The emergence of social media can also help us understand the moral obligation of clean eating and healthism, and whether it is linked to the topic of body shape and weight. Social networks such as Facebook, Instagram or Pinterest are the main stage for the ethos of food awareness. The fitness industry and the media are both largely responsible as gatekeepers of possible disordered eating habits.

Methods

Selection criteria of our search was to find articles that examined directly ON among fitness industry participants. For this, we first used the keyword “orthorexia nervosa” OR “orthorexic” and among the 87 studies found, we screened the results that are relevant to fitness: measuring athletes’ or recreational exercisers health-induced eating habits. We found that were fifteen articles applicable but had to exclude one because of language barriers, four because it dealt more about describing behavioral addictions regarding exercise and only mentioned eating disorders marginally. The literature collection, that resulted in ten.
finally included papers, was performed using the academic databases PubMed and Science direct. Image 1 shows the PRISMA flowchart about the selection process.

Image 1: article selection process

Results

Table 1 summarizes the key concepts, methodology, sample size and the conclusions for each study.

Two studies were found taking place on social media, looking for the connections between using this communication tool and developing orthorexic symptoms. Tiggemann and Zaccardo (2015) focused on “Fitspiration” (amalgamation of “fitness” and “inspiration,” providing people with motivation to exercise and pursue a healthier lifestyle) and health food images on Instagram. After being exposed to the “Fitspo” images, the participants took surveys to measure mood and body dissatisfaction, inspiration levels, and social comparison. The findings show that when motivated by appearance-based reasons (e.g., achieving a completely flat stomach), adopting disordered eating habits is more likely (Tiggesmann – Zaccardo, 2015). Findings highlight the occurrence of “fitness” and “inspiration,” providing people with motivation to exercise and pursue a healthier lifestyle (Crawford, 1980). While aspiring for health and even experiencing some pressure to change to our maintain a healthy lifestyle is extremely valuable, recreation and health professionals should be aware that the coping methods oftentimes lead to disordered eating.

Limitations

As ON has no diagnostic criteria, its symptoms are difficult to assess and quantify properly. Also, the number of the articles that directly focus on fitness participants’ behavior is quite small and needs further investigation. Using more qualitative and exploratory methods could broaden the needs further investigation. Using more qualitative and exploratory methods could broaden the perspective more whether health food addiction can be pathologized or not.

Conclusion and perspectives

It is important for fitness centers to promote healthy habits and attitudes toward body ideals. The employees of the gym should be aware that they work in a high-risk environment of body image issues and eating disorders. Constantly re-inforcing their clients that the ideals they see are neither healthy nor realistic is extremely important, because striving for a healthy lifestyle can easily turn out to be counterintuitive when it is accompanied with anxiety. As seen in the reviewed studies, there are clear indicators of both somatic and psychological dangers of such behaviors. This all proves the validity for raising awareness and further prospective research on the ON phenomenon.
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Table 1: Study details of the journal papers used in the literature review

| Authors and year | Objectives | Participants | Methods | Conclusions |
|------------------|------------|--------------|---------|-------------|
| Tiggemann – Zacardico, 2015 | To measure the effect of fitness imagery on women’s body image. | n=130, female undergraduates | Experiment: participants were randomly assigned to view either a set of Instagram fitness images or a control set of travel images, then they were tested by the dependent variables such as mood, body dissatisfaction, state appearance self-esteem and state appearance comparison. | Acute exposure to fitness imagery led to increased state and trait body dissatisfaction, and decreased state and trait body esteem relative to travel images. |
| Turner – Lefevre, 2017 | To investigate links between orthorexia and ON symptoms. | n=680, social media users | Correlation analysis: The authors used questionnaires that measured social media use, eating behaviours, and ORTO-15 results. | Higher Instagram use was associated with a greater degree of orthorexia tendency towards occupational eating. |
| Eriksson et al. 2008 | To measure social physique concerns and review sociocultural attitudes towards appearance and its impacts on ON in fitness participants. | n=251 (166 women and 85 men), Swedish participants in fitness center activities | Correlation analysis between the results of social physique anxiety scale (SPAS) and the sociocultural attitudes towards appearance questionnaire (SATAQ), relating to BOD with scores to age, sex, and self-reported exercise frequency. | Correlation analysis between the results of social physique anxiety scale (SPAS) and the sociocultural attitudes towards appearance questionnaire (SATAQ), relating to BOD with scores to age, sex, and self-reported exercise frequency. |
| Segura-Garcia et al. 2012 | To examine the occurrence of ON in athletes and to verify the relationship between ON and eating disorders. | | Correlation analysis: The findings showed that several significant results emerged in athletes, whereas a high rate of anxiety and eating pathology was evident among controls (21%). | Correlation analysis: The findings showed that several significant results emerged in athletes, whereas a high rate of anxiety and eating pathology was evident among controls (21%). |
| Malmborg et al. 2019 | To measure the relationship between exercise activity and addiction motivations to exercise. | n=111; university students from the USA. | Correlation analysis, using the EHQ and alongside Leisure-Time Exercise Questionnaire, the Exercise Addiction Inventory, the Compulsive Exercise Test, and various exercise motivations using Behavioural Regualtions in Exercise Questionnaire and the Exercise Motivation Inventory-2. | ON in combination with a greater degree of orthorexia tendencies was found to be associated with increased levels of addictive exercise. |
| Oberle et al. 2017 | To measure the relationship between exercise activity and exercise motivations and orthorexic tendencies. | n=1108; active members of three fitness studios in Germany. | Correlation analysis, between the results of the Exercise Addiction Inventory (EAI) and the DOS. | There was a significant relationship between orthorexic individuals and those who scored high on EAI. |
| Rudolph, 2017 | To measure the relationship between exercise addiction and orthorexic tendencies. | n=1016; trainee home economics and physical education teachers. | Correlation analysis, using the EHQ, and alongside Leisure-Time Exercise Questionnaire, the Exercise Addiction Inventory, the Compulsive Exercise Test, and various exercise motivations using Behavioural Regualtions in Exercise Questionnaire and the Exercise Motivation Inventory-2. | Correlation analysis, between the results of the Exercise Addiction Inventory (EAI) and the DOS. |
| O’Dea – Abraham, 2006 | To measure the relationship between exercise addiction and orthorexic tendencies. | n=216; trainee home economics and physical education teachers. | Survey research was undertaken using a self-report questionnaire. Height and weight were measured. | Correlation analysis, between the results of the Exercise Addiction Inventory (EAI) and the DOS. |
| O’Dea – Abraham, 2006 | To measure the relationship between exercise addiction and orthorexic tendencies. | n=216; trainee home economics and physical education teachers. | Survey research was undertaken using a self-report questionnaire. Height and weight were measured. | Correlation analysis, between the results of the Exercise Addiction Inventory (EAI) and the DOS. |
| Turner – Lefevre, 2017 | To investigate links between orthorexia and ON symptoms. | n=680, social media users | Correlation analysis: The authors used questionnaires that measured social media use, eating behaviours, and ORTO-15 results. | Higher Instagram use was associated with a greater degree of orthorexia tendency towards occupational eating. |
| Varga, M., Ducay-Szabó, Sz., Türky, F., Furth, E. (2013): Evidence and gaps in the literature on orthorexia nervosa. Eat Weight Disorder. 18. 2. 103-111. doi:10.1007/s40519-013-0026-y | To unveil the prevalence in an ashtanga yoga group. | n=589; alumni of the Ashtanga Yoga Madrid center’s database (Madrid, Spain). | Correlation analysis using data about BMI, eating and practicing habits, and ORTO-15. | Correlation analysis using data about BMI, eating and practicing habits, and ORTO-15. |
| Valera et al. 2017 | To investigate the prevalence in an ashtanga yoga group. | n=14; personal trainer. | Focus group interviews and interpretative qualitative content analysis. | Focus group interviews and interpretative qualitative content analysis. |