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Bigorexia: Men's Troubles with Their Body

Introduction

The assessment of body image in terms of leanness and obesity is culture-dependent. Poorer cultures, where thinness is associated with poverty, malnutrition and illness, value obesity higher, while the opposite is the case in developed countries, where thinness is associated with self-control and prestige, and is valued higher (Grogan 1999, p. 20). There are certain standards of a desirable body that have been created by society, and in terms of men, in our culture this would be a mesomorphic, lean (without excess fat) and muscular body.

It is noteworthy that increasingly younger individuals of both sexes experience anxiety about their body's adequacy in relation to culture-imposed demands. While girls define the ideal body as a sylph-like figure, boys consider a combination of slimness and strength to constitute the ideal body. Although studies investigating the level of body satisfaction indicate a higher dissatisfaction with one's own body among girls than among boys (Duncan et al. 2006, p. 92), it is noteworthy that body dissatisfaction in these groups concerns different aspects (Konstanski, Fisher & Gullone 2003, p. 190). The main source of dissatisfaction among girls is the perception of being too fat, while boys not only describe themselves as too obese but often also as too wimpy.¹ While girls strive after slimness, for boys, being slim is one of the reasons for the lack of satisfaction with their bodies (Konstanski, Fisher & Gullone 2004, p. 1322), because young men would like to be bigger and more muscular and display a higher level of motivation to build muscles (McCreary & Sasse 2000, pp. 297–304). Researchers also point to an association between dissatisfaction with one's body image and self-confidence among girls and boys (Cohane & Pope 2001, pp. 373–379). Bigorexia, or muscle dysmorphia, develops around the age of 19 years, give or take 3 years (Olivardia 2001, p. 256), so it not only affects adult males but also adolescents².

¹ Research shows that half of the boys and young males who are dissatisfied with their body image want to lose weight, while the other half want to gain weight (Furnham & Calnan 1998, pp. 58–72; Drewowski & Yee 1987, pp. 626–634).

² It should, however, be borne in mind that the research studies investigating muscle dysmorphia include men aged 18–30 years.

Muscle dysmorphia

Muscle dysmorphia is a disorder of, predominantly, the male body image but can also affect women, although to a much lesser degree (Chung 2001, pp. 565–574; Pope et al. 1997, pp. 548–557; Hitzeroth et al. 2001, pp. 521–553; Pope et al. 2000). The prevalence of this disorder is difficult to determine, although in the year 2000, researchers estimated that 100,000 people worldwide³, or even more, could meet the formal criteria for this disorder (Pope, Phillips & Olivardia 2000). This phenomenon, described mainly by Harrison G. Pope and Roberto Olivardia and colleagues, was initially referred to as “reverse anorexia” or, colloquially, as bigorexia. Muscle dysmorphia has been defined as a pathological preoccupation with muscularity characterised by excessive concern about such muscularity and by undertaking efforts to increase body weight without increasing body fat (Morgan 2000, pp. 521–523). Those affected are dissatisfied with their musculature (the disorder therefore does not affect all the aspects of body image or all parts of the body) and are characterised by having a discrepancy between their ideal and their actual body image. The affected individuals are convinced that they are insufficiently muscular, while in reality they are usually better built than the average person (Leone, Sedoryt, Gray 2005, p. 353).

The belief that one’s body is not sufficiently muscular results in discomfort or in the deterioration of social and professional life as well as other areas important for well-being. It is often the case that the affected individuals do not undertake activity in these areas, as they are completely absorbed in their exercise and diet programmes and their daily “bodily” rituals (Olivardia 2001, pp. 254–255). The discomfort and obsession associated with the belief that one’s musculature is insufficient do not, however, result from vanity or the desire to look great, but to look – in their opinion – “acceptable” (Pope, Phillips & Olivardia 2000). Individuals with muscle dysmorphia avoid circumstances where they would be forced to show off their bodies, and when they do find themselves in situations like this, their response is one of discomfort or severe anxiety. Another important feature is the fact that individuals affected with this disorder continue with exercise, diet or the intake of various substances despite being fully aware of the negative consequences. Muscle dysmorphia differs from other disorders merely in the preoccupation with being too small or insufficiently muscular, and not, as is the case with anorexia nervosa, with being too obese, or with a specific aspect of appearance, as is seen in body dysmorphic disorder (Olivardia 2001, pp. 254–255).

³ Muscle dysmorphia, although first described in the United States, is not restricted to this geographical region. A number of analyses indicate that the disorder occurs in Europe, America and Africa (see: Pope et al. 2000, pp. 1297–1301; Lipiński, Pope 2002, pp. 163–171; Hitzeroth et al. 2001, pp. 521–523).

Behaviour of individuals with muscle dysmorphia

Individuals with muscle dysmorphia display a number of diagnostic behaviours. First of all, they focus on exercise, which mainly involves lifting weights to sculpture their muscular silhouette, follow a strict diet, and compulsively check themselves out in the mirror (Olivardia 2001, p. 255). Pope, Phillips and Olivardia (2000, p. 9) quote one of their respondents who admitted that he devoted 90% of his time to lifting weights, his diet and focusing on his image. These behaviours were so compulsive that he was unable to pass by a mirror without looking at himself in it, but only when he was certain that no-one else was looking. According to studies by Olivardia and colleagues, men with muscle dysmorphia look at themselves in the mirror between 9 and 12 times a day, while men who lift weights but are not affected by this disorder do so 3 times a day (Olivardia, Pope & Hudson 2000, pp. 1291–1296). Some men look at themselves in the mirror up to 50 times a day, devoting about 40 minutes to this particular activity each day. Bigorexics not only check themselves out in the mirror, but also in shop windows, pocket mirrors and even in cutlery. Olivardia, as an example, describes a man who caused a car accident because, while driving, he kept looking at his muscles in the rear-view mirror to check that they were not too small. These behaviours are compulsive and are so strong that men are incapable of refraining from them (Olivardia 2001, p. 255). Studies have shown that men with muscle dysmorphia spend more than 5 hours a day thinking about their insufficient musculature (Olivardia et al. 2000, pp. 1291–1296; Pope et al. 2000, p. 92). Researchers quote a history of a man who once decided that when he looked in the mirror and concluded that he did not look good enough, would stay at home the whole day and did not leave for fear of people looking at him with criticism in their eyes. It even, or perhaps mostly, happened when he had planned to meet his friends later that day: he would cancel due to severe anxiety, stress and fears (Pope, Phillips & Olivardia 2000, pp. 84–85). Another respondent said that when he looked in the mirror before going out on a date and decided that he did not look good enough, he would cancel the date (Pope, Phillips & Olivardia 2000, pp. 93–94). Such behaviours result in an increasing social isolation and breaking off of many relationships.

Giving up important social, professional and leisure events in order to be able to exercise and stick to one's diet is an important element of behaviour in individuals affected by muscle dysmorphia (Pope et al. 1997, pp. 548–557). One man did not accompany his wife during labour because he had planned to go to the gym around that time and was afraid that if he missed his training even once, his muscles would shrink. A student did not take an important final exam only because it overlapped with his training (Olivardia 2001, p. 255). Another respondent admitted that whenever he went somewhere, he would analyse the area he was going to in order to find out the location of the closest gym where he could work out. One time, before he went on an island where there was no gym, he shipped his workout equipment there, undeterred by the high shipment fees, so that it was

already waiting for him at his hotel once he arrived! Some people do not go away at all for fear that it could disrupt their exercise and diet routine (Pope, Phillips & Olivardia 2000, p. 90).

Individuals suffering from bigorexia pay very strict attention to what they eat, particularly in terms of the calories they consume. They spend up to 3 hours daily on activities related to food consumption (planning, shopping for appropriate food products and supplements, and packing small portions into plastic bags) (Pope, Phillips & Olivardia 2000, p. 91). In order to consume appropriately selected ingredients as often as they can, they generally do not eat out, as they are unable to determine the energy value of the dishes (Olivardia 2001, p. 255). Eating is associated with a rigorous distribution of calorie intake, rather than with relishing the taste of food. As providing a sufficient number of calories to boost the still inadequate musculature is impossible without resorting to protein shakes, these products are an integral part of the diet. Olivardia tells a story of a man who prepared a protein shake at his desk in his law firm every 90 minutes, using a loud blender which disturbed his work colleagues. When he was forced to stop this practice, or he would be fired, he quit his job (Olivardia 2001, p. 255; Pope et al. 2000, p. 89). Another respondent was unable to reconcile his job with his rigorous schedule of workouts: he would leave work an hour early, and his lunch break would last about two and a half hours, which resulted in him too being fired. So he changed his job and started working as a personal trainer (Pope, Phillips & Olivardia 2000, p. 89). Focusing on exercise and diet not only interferes with social relations but it often makes it impossible for the affected individual to pursue their acquired profession, even if it is quite lucrative. Even though they usually get less pay, men often decide to work at gyms or sports clubs, as it does not interfere with their compulsive activities. Researchers also report a story of a man who worked as a chef and grabbed every opportunity to exercise at work: he lifted pots, and went to the toilet to do at least fifty push-ups. Even though he felt embarrassed every time he got caught, he still could not stop doing it (Pope et al. 2000, p. 91).

Men with muscle dysmorphia compare other people's physical appearance with theirs. These comparisons are always to the disadvantage of the affected individual, whose distorted perception of his own body does not allow him to self-evaluate himself in a realistic manner. Studies indicate that individuals affected by this disorder have poor insight. Less than half of the men with muscle dysmorphia had excellent or good insight, half had poor insight, and eight percent had no insight at all. This means that the recognition of their body size was incorrect and they could not be persuaded that they were not at all insufficiently muscular (Olivardia, Pope & Hudson 2000, pp. 1291–1296). Therefore, patients avoid showing their body off for fear of being negatively perceived by others. Clearly, then, they are not the kind of people who would show their naked or nearly naked torsos. On the contrary, they try to hide their still insufficiently muscular body under multiple layers of clothing, so that it looks bigger (Olivardia 2001, pp. 255–256). They also steer clear of the swimming pool or the beach (Pope, Phillips & Olivardia 2000, p. 9). One respondent admitted that whenever he went to the doctor, he

never took off his T-shirt if an examination with the stethoscope was necessary, and that his doctor put the stethoscope underneath his clothes (Pope, Phillips & Olivardia 2000, p. 90). Another respondent admitted that during the selection of players for two teams he never agreed to be on the team that took their T-shirts off because he was afraid to show his naked torso. Whenever he did get selected to be on the shirtless team, he always came up with an excuse not to participate in the game (Pope, Phillips & Olivardia 2000, p. 92). Because they spend their whole free time working out, the affected individuals are at a risk of social isolation as a result of withdrawing from interpersonal relations and avoiding others for fear of being compared with them (Olivardia 2002, p. 61).

Muscle dysmorphia also causes discomfort in relations with partners. In one study, a man avoided sex with his wife because he did not want to waste his energy on activities that did not involve working out and developing muscle mass. Eventually, he limited his sexual activity to having sexual intercourse twice a month. Another respondent avoided kissing his girlfriend for fear of the calories he believed her saliva could contain (Pope et al. 2000, p. 90). It is often the case that due to the patient's excessive preoccupation with building his muscles, their partner breaks up with them (Pope et al. 2000, pp. 9 and 90).

Continuing to work out even after an injury is typical of patients affected by muscle dysmorphia. Researchers describe, for instance, a man who continued to work out despite having fractured a bone, as he was so afraid to lose muscle mass that he exercised despite the pain and the risk to his health. This resulted in five weeks of convalescence, after which he was convinced that his muscles were so small that he could not face going to a public gym and started working out at home (Pope et al. 2000, p. 93).

Individuals affected by muscle dysmorphia often mask their illness with the desire to do sports (Leone et al. 2005, p. 354). In their case, their growing musculature is not a "side effect" of their sports activities but the very reason why they do sports in the first place. Researchers suggest that coaches expect their players to be physically fit and muscular, and if an athlete is predisposed to developing muscle dysmorphia, a sporty environment can contribute to this disorder. They therefore suggest that coaches and people working with athletes should be appropriately prepared to be able to diagnose the disorder.

It is possible to mathematically describe the muscularity of men using the fat-free mass index (FFMI), which is calculated from the person's height, weight and percentage of body fat. The value of 20 describes an average muscled man, and the value of 23 refers to the description of a man whose musculature is visible. According to an analysis by Elena M. Kauri and colleagues (2009, p. 193), FFMI values above 26 cannot be achieved in a natural way, or at least by exercise and diet only, without the support of anabolic steroids (Pope, Phillips & Olivardia 2000, p. 35). Studies show that patients with bigorexia often exceed the value of 26 (Mosley 2009, p. 193). It may therefore be concluded that these individuals have resorted to anabolic steroids to achieve better results in a shorter timespan (Olivardia 2001, p. 256). Individuals with muscle dysmorphia, when entering the subculture

of body builders, find out that steroids will give them what supplements cannot, namely a faster and greater muscle growth. The greatest danger is addiction to these harmful substances, to which patients are particularly susceptible, as well as the health risk posed by the use of steroids (Pope, Phillips & Olivardia 2000).

The aetiology of muscle dysmorphia

The aetiology of muscle dysmorphia is unknown. The hypotheses regarding the causes of the disorder are based on the biopsychosocial model (Olivardia, Pope & Hudson 2000, pp. 548–557; Pope, Phillips & Olivardia 2000). Some researchers suggest that muscular dysmorphia has appeared as a result of socio-cultural factors (Pope et al. 1997), namely the expectations and social pressures regarding body image (Pope, Phillips & Olivardia 2000; Olivardia 2001; Leit, Gray & Pope 2002, pp. 334–338). Olivardia hypothesised that apart from sociocultural factors, the causes of muscular dysmorphia could be associated with biological or genetic predispositions (Olivardia 2001, p. 256). Lantz, Hera and Mayhew describe muscle dysmorphia as a result of the interaction between low self-esteem, dissatisfaction with the body, or its erroneous perception in combination with the impact of biological and social factors (Lantz et al. 2001, pp. 71–86). The authors suggest that the development of muscular dysmorphia is a direct result of dissatisfaction with one's body (Lantz et al. 2001). Frederick Grieve (2007, pp. 63–80), on the other hand, proposes a model that takes into account biological factors (BMI), social and psychological functioning, and participation in sports. He points out three most important variables: distorted perception of the body, dissatisfaction with one's body, and an internalised ideal of body image, which in combination with perfectionism, low self-esteem, pressure of the mass media, and participation in sports, provide conditions conducive to the development of muscular dysmorphia.

Olivardia points out that muscular dysmorphia coexists with other psychiatric disorders. Together with his colleagues, he demonstrated in a study of a group of men that 29% of people with muscular dysmorphia had eating disorders, and 58% had a history of mood disorders (Olivardia et al. 2000, pp. 1291–1296). Sufferers from muscular dysmorphia also have low self-esteem (Pope et al. 2000; McCreary & Sasse 2000, pp. 297–304) and are more compulsive (Olivardia 2001, p. 257). Because people with muscle dysmorphia often use illegal substances that are supposed to help increase their musculature (steroids, illicit drugs), they are at a risk of medical complications related to the intake of these products.

Classification of the disorder

There is ongoing debate on the appropriate classification of muscular dysmorphia, which is important for its prevention, diagnosis and treatment (Chandler et al. 2009, p. 151). Muscle dysmorphia has been classified as a subtype of the dys-

morphic body disorder (Pope & Katz 1994, pp. 375–382), and some researchers point to its links with the obsessive-compulsive disorder (Maida & Armstrong 2005; Chandler et al. 2009, p. 150; Pope et al., 2000, p. 97) or suggest that bigorexia should be classified as an eating disorder (Grieve 2007, pp. 63–80; Grieve & Hellick 2008, p. 288; Goodale et al. 2001, pp. 260–266). It has also been suggested that muscle dysmorphia should not be included in existing groups of diseases, but rather an independent description of the disorder should be created (Chandler et al. 2009, p. 151).

Denise M. Maida and Sharon L. Armstrong (2005, pp. 73–91) analysed the relationship between muscle dysmorphia and other disorders, and pointed to the association of this disorder with the obsessive-compulsive disorder, dysmorphic body disorders, and dissatisfaction with one's body. The authors suggested that muscle dysmorphia was closer to obsessive-compulsive disorder than to somatisation disorder (Maida, Armstrong 2005, p. 85).

Grieve (2007, pp. 63–80) claims that this disorder [muscle dysmorphia] includes both anxiety and eating disorders, and that there are many similarities between the diagnostic criteria for muscle dysmorphia, anorexia nervosa and bulimia nervosa. The researcher notes that the disorder was initially referred to as "reverse anorexia" (Pope, Katz & Hudson 1993, pp. 406–409) because of the similarity to anorexia nervosa, and as many of the affected individuals had previously suffered from an eating disorder. Also, in both disorders, self-esteem is strongly associated with body shape and size. The closer the body is to the socially propagated and rewarded ideal, the higher the self-esteem. Therefore, men strive towards a mesomorphic body with as much muscle and as little body fat as possible. Both muscle dysmorphia on the one hand, and anorexia nervosa and bulimia nervosa on the other, are characterised by a chronic preoccupation with one's body and the desire to change it through proper diet and exercise. A disordered self-perception is another similarity, as individuals with anorexia continuously see themselves as insufficiently thin, while individuals with muscle dysmorphia perceive themselves as insufficiently muscular (Grieve 2007, p. 65). In both anorexia and bigorexia, the affected individuals are heading for physical self-destruction. Undertaking exercise despite pain and injury, continuously following a low-fat and high-protein diet in spite of hunger, and using steroids – these are all behaviours that destroy their bodies (Pope, Phillips & Olivardia 2000, p. 11). Grieve also draws an analogy between muscle dysmorphia and another eating disorder: binge eating disorder. Men consume huge amounts of calories, also in the form of special shakes (because ordinary food would often fail to provide the desired amount of calories), which they then "convert" into muscles (Grieve 2007, pp. 65–66). An important difference between muscle dysmorphia and anorexia is that anorexic patients, whose focus is on getting rid of fat from their body, engage in pathological behaviours related primarily to food intake, considering exercise only a second most important point of focus. Individuals with muscle dysmorphia, on the other hand, while striving to develop muscles, focus on working out and subject their bodies to many hours of training, combining this with a strict diet. These two co-existent behaviours,

therefore, are assigned a different weight in the two disorders (Maida, Armstrong 2005, p. 74; Olivardia 2001, p. 255). Maida and Armstrong point to yet another significant difference between muscle dysmorphia and eating disorders regarding the aetiology of the former. While in the case of eating disorders researchers have demonstrated a significant impact of childhood trauma (physical, emotional or sexual abuse) and problems within the family, patients with bigorexia were not affected by this issue, although it should be noted that in childhood they felt some embarrassment or shame due to imperfections of their appearance, e.g. they were ridiculed for being obese or skinny (Pope, Phillips & Olivardia 2000, p. 15). Some subjects with muscle dysmorphia said that when they were children, they were very small or obese and because of that they were bullied by their peers. Consequently, they focused on their bodies and appearance to end the bullying (Olivardia 2001, p. 256).

Diagnosis and treatment of muscle dysmorphia

Treatment of muscle dysmorphia is mainly based on the treatment recommendations for obsessive-compulsive disorder, dysmorphic body disorder and eating disorders (Olivardia 2001, p. 257). Olivardia points out that people suffering from muscle dysmorphia rarely see a specialist and start treatment. More commonly, they seek professional help for depression that accompanies the disorder or for abusing harmful substances (though not steroids). Patients do not attempt to seek help because it would entail an embarrassment associated with admitting that their body is not perfect, but also their sense of masculinity would be undermined if they were to reveal their problem to someone (Olivardia 2001, p. 257).

While individuals suffering from anorexia tend to be forced to seek help due to cachexia and the risk of dying, those affected by muscle dysmorphia seem to be perfectly healthy and give the impression of someone who leads a healthy, active lifestyle (Dawes & Mankin 2004, pp. 24–25). In order to help diagnose the problem, Pope, Phillips and Olivardia created a fifteen-item list, affirmative answers to which may suggest different degrees of bigorexia.

Men with a low degree of muscle dysmorphia agree with four or five statements, whilst if a person agrees with half of the statements, this means that bigorexia has a significant impact on their daily living. The list addresses the following issues: frequency of worrying about being slim and muscular enough; giving up attractive meetings and activities due to previously scheduled workouts; negative impact of workouts on career opportunities or giving up work; being on a high-protein and low-fat diet with supplements to increase muscle mass; spending large sums of money on musculature-improving supplements and substances; giving up eating out or going to dinner parties because of one's diet; avoiding situations in which others can see one's body (beach, changing room, public shower) for fear of being perceived as having an insufficiently muscular body; wearing several layers of clothing to look better built; deliberately choosing clothing that

make one look larger; frequently measuring the circumference of individual parts of the body (chest, biceps, etc.); continuing to work out despite injuries for fear of losing muscle mass; using drugs (legal and illegal) to increase musculature; frequently comparing oneself to others for fear of being less muscular than they are; experiencing jealousy for a long time after seeing someone who is more muscular (Pope et al., 2000, pp. 88–89).

In addition, the Bodybuilder Image Grid (Hildebrandt, Langenbacher & Schlundt 2004, p. 171) can be useful for the diagnosis of suspected body image disorders in men (and for evaluating the perception of attractiveness of the male body by both men and women). The use of this tool in men involves setting them four tasks: to indicate an image which, in the subject's opinion, reflects the way his body looks at the moment; to indicate the image that depicts the ideal body according to the subject; to indicate the most attractive body type; and to indicate the most attractive body image for the opposite sex.

The treatment process should include attempts to reduce the time spent at the gym, and to stop using steroids, which, however, is associated with the greatest fear among the patients, namely weight loss (Olivardia 2001, p. 257). Another important element of the treatment process is psychoeducation, which should include education on proper nutrition and the dangers of steroids, and should show that the images presented in the media are not always an accurate representation of peoples' appearance or a right suggestion of what people should look like. The course of treatment involves an observation of the development of muscle dysmorphia and checking the age at which it appeared. Olivardia also emphasises that during psychotherapy, it would be good to focus on the reasons or experiences that influenced the individual's focus on his body image. The author further states that cognitive-behavioural techniques used in the treatment of dysmorphic body disorders and pharmacological treatment can be used in the treatment of bigorexia. While working with the patient, it is also important that the patient stops using steroids. Clinicians should also determine the patient's ideal body image and estimate how realistic it is (Olivardia 2001, pp. 257–258). Ultimately, the goal of the treatment should be to increase insight and the ability to realistically assess one's body⁴.

Conclusion: muscle dysmorphia and masculinity

The problems with body image, once defined as typical of women, are increasingly becoming a domain of men. By focusing on the body, men have made it an important element of their identity and their sense of masculinity. From the psychological perspective, individuals affected by muscle dysmorphia have low

⁴ For more on the treatment of muscular dysmorphia: work with the patient, tips for psychologists, therapists and people who may work with the group at a potential risk of this disorders (athletes), see: Olivardia 2001; Leone et al. 2005; Grieve et al. 2009, pp. 306–314.

self-esteem. Striving for musculature may therefore be an attempt to compensate for the feeling of being insufficiently "masculine" (Pope, Phillips & Olivardia 2000).

Research has shown that since the 1990s, an increasing number of men have been declaring dissatisfaction with their bodies or individual parts of their bodies (McCaulay et al. 1988, pp. 381–390; Mishkind et al. 1986, pp. 545–562). According to Olivardia's analyses (2002, pp. 59–63), the level of male dissatisfaction has tripled in less than 30 years. In a study conducted in 1996, 11% of men (and 15% of women) would give up 5 years of life if they could only weigh as much as they would like to, while 17% of men (and 24% of women) would give up more than 3 years of their life (Garner 1997, p. 34).

Researchers point out that men feel dissatisfaction with their appearance as much as women, and they even surpass the latter with respect to certain body parts, namely the chest (Pope, Phillips & Olivardia 2000, p. 27). Men have succumbed to dictates, bans and expectations related to the body, which previously affected mainly women, and, according to researchers, today, up to 25–30% of patients with eating disorders are male (Anderson, Cohn & Holbrook 2000). Almost half of the respondents in research studies were completely or very dissatisfied with their appearance, 74% of men thought they were too fat and felt extremely uncomfortable if they could not work out for a week, and half of the respondents admitted to using steroids (Pope et al. 2000, p. 92). The body has become an opportunity but also a trap. However, dissatisfaction with one's body among an increasing number of men is not suspended in a vacuum, and the socio-cultural background plays a key role (Kostanski et al 2003, p. 1322).

Literature

- Anderson A., Cohn L., Holbrook T., 2000, *Making Weight*, Carlsbad, CA: Gurze Books.
- Chandler C.G., Grieve F.G., Derryberry W.P., Pegg P.O., 2009, *Are Anxiety and Obsessive-Compulsive Symptoms Related to Muscle Dysmorphia*, "International Journal of Men's Health" No. 8.
- Chung B., 2001, *Muscle Dysmorphia; a Critical Review of the Proposed Criteria*, "Perspect Biol Med." No. 44.
- Cohane G.H., Pope H.G. Jr., 2001, *Body Image in Boys: A Review of the Literature*, "International Journal of Eating Disorders" Vol. 29, No. 4.
- Dawes J., Mankin T., 2004, *Muscle Dysmorphia*, "Strength Cond. Journal" Vol. 26, No. 24–25.
- Drewowski A., Yee D.K., 1987, *Men and Body Image: Are Males Satisfied with Their Body Weight?*, "Psychosomatic Medicine" Vol. 49.
- Duncan M.J., Al-Nakeeb Y., Nevill A.M., Jones M.V., 2006, *Body Dissatisfaction, Body Fat and Physical Activity in British Children*, "International Journal of Pediatric Obesity" Vol. 1, No. 2.
- Furnham A., Calnan A., 1998, *Eating Disturbance, Self-Esteem, Reason for Exercising and Body Weight Dissatisfaction in Adolescent Males*, "European Eating Disorders Review" Vol. 6, No. 1.

- Garner D.M., 1997, *The 1997 Body Image*, "Psychology Today" Vol. 30.
- Goodale K.R., Watkins P.L., Cardinal B.J., 2001, *Muscle Dysmorphia: A New Form of Eating Disorder?*, "American Journal of Health Education" Vol. 32.
- Grieve F.G., 2007, *A Conceptual Model of Factors Contributing to the Development of Muscle Dysmorphia*, "Eating Disorders" Vol. 15.
- Grieve F.G., Truba N., Bowersox S., 2009, *Etiology, Assessment, and Treatment of Muscle Dysmorphia*, "Journal of Cognitive Psychotherapy: An International Quarterly" Vol. 23.
- Grieve R., Helmick A., 2008, *The Influence of Men's Self-objectification on Drive for Muscularity: Self-Esteem, Body Satisfaction and Muscle Dysmorphia*, "International Journal of Men's Health" Vol. 7.
- Grogan S., 1999, *Body Image. Understanding Body Dissatisfaction in Men, Women and Children*, Routledge, London and New York.
- Hildebrandt T., Langenbucher J., Schlundt D.G., 2004, *Muscularity Concerns among Men: Development of Attitudinal and Perceptual Measures*, "Body Image" Vol. 1.
- Hitzeroth V., Wessels Ch., Zungu-Dirwayi N., Oosthuizen P., Stein D.J., 2001, *Muscle Dysmorphia: A South African Sample*, "Psychiatry and Clinical Neurosciences" Vol. 55.
- Kostanski M., Fisher A., Gullone E., 2003, *Conceptualising Body Image: The Inherent Difficulties in Analysis*, "Australian Journal of Psychology" Vol. 55.
- Kouri E.M., Pope H.G. Jr., Katz D.L., Oliva P., 1995, *Fat-free Mass Index in Users and Non-users of Anabolic Androgenic Steroids*, "Clinical Journal of Sport Medicine" Vol. 5.
- Leone J.E., Sedoryt E.J., Gray K.A., 2005, *Recognition and Treatment of Muscle Dysmorphia and Related Body Image Disorders*, "Journal of Athletic Training" Vol. 40, No. 4.
- Lipiński J.P., Pope H.G. Jr., 2002, *Body Ideal in Young Samoan Men: Comparison with Men in North America*, "International Journal of Men's Health" Vol. 1.
- Maida D.M., Armstrong S.L., 2005, *The Classification of Muscle Dysmorphia*, "International Journal of Men's Health" Vol. 4.
- McCaulay M., Mintz L., Glenn A.A., 1988, *Body Image, Self-esteem, and Depression-proneness: Closing the Gender Gap*, "Sex Role" Vol. 18.
- McCreary D., Sasse D., 2000, *An Exploration of the Drive for Muscularity in Adolescent Boys and Girls*, "Journal of American Collage Health" Vol. 48.
- Mishkind M.E. et al., 1986, *Embodiment of Masculinity*, "American Behavioral Scientist" Vol. 29.
- Morgan J.F., 2000, *From Charles Atlas to Adonis Complex – Fat is More than Feminist Issue*, "The Lancet".
- Mosley P.E., 2009, *Bigorexia: Bodybuilding and Muscle Dysmorphia*, "European Eating Disorders Review" Vol. 17.
- Olivardia R., 2002, *Body Image Obsession in Men*, "Healthy Weight Journal" Vol. 16.
- Olivardia R., 2001, *Mirror, Mirror on the Wall, Who's the Largest of Them All? The Features and Phenomenology of Muscle Dysmorphia*, "Harvard Review Psychology" Vol. 9, No. 5.
- Olivardia R., Pope H.G. Jr., Hudson J.I., 2000, *Muscle Dysmorphia in Male Weightlifters: a Case Control Study*, "American Journal of Psychiatry" Vol. 157.
- Pope H.G. Jr., Gruber A.J., Choi P.Y.L., Olivardia R., Phillips K.A., 1997, *Muscle Dysmorphia: an Underrecognized Form of Body Dysmorphic Disorder*, "Psychosomatics" Vol. 38.
- Pope H.G. Jr., Gruber A.J., Mangweth B. et al., 2000, *Body Image Perception in Three Countries*, "American Journal of Psychiatry" Vol. 157.
- Pope H.G. Jr., Katz D.L., Hudson J.I., 1993, *Anorexia Nervosa and "Reverse Anorexia" among 108 Male Bodybuilders*, "Comprehensive Psychiatry" Vol. 34.

- Pope H. G. Jr., Katz D. L., 1994, *Psychiatric and Medical Effect of Anabolic-Androgenic Steroid Use. A Controlled Study of 160 Athletes*, "Archives of General Psychiatry" Vol. 51.
- Pope H. G. Jr., Philips K. A., Olivardia R., 2000, *The Adonis Complex: the Secret Crisis of Male Body Obsession*, Free Press, New York.

Summary

Bigorexia: Men's Troubles with Their Body

In this paper, I set out to answer the questions about contradictory discourses of male corporeal identity related to gym practices. I explore the role of the gym in the formation and negotiation of masculinities for men.

Keywords

masculinity, body, identity, bigorexia

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