

What is muscular dysmorphia?

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1. Introduction

1. 1 Overview of Subject Area

While sport is commonly perceived as a means to keep fit and healthy, and promoted by government as a way to improve health and protect against disease (direct. gov [online] 2011), an interest in sport can develop beyond a concern for health and fitness into an obsession with the idea of aesthetic well being and attractiveness. Researchers have been aware since the 1980's that individuals can become 'exercise dependent', showing an "unhealthy preoccupation with exercise which has the potential to become a damaging obsession" (Dunford and Doyle 2011, p. 454), but the condition of 'Muscle Dysmorphia' (MD) is less well known. Muscle Dysmorphia has been defined as a psychological disorder in which the individual perceives himself to be too thin, and wants to achieve muscular perfection. In order to achieve this they often resort to excessive exercising and muscle building. This condition is also known as 'Adonis complex' (Pope et al 2000), or 'reverse anorexia' (Olivardia et al 2000). While other eating disorders are fairly well understood and well documented for several decades, Muscle Dysmorphia is comparatively little recognised, little researched and little understood.

Muscle Dysmorphia is characterised by a number of features, including:

An obsessive belief that one's body must be more lean and muscular than it already is (Olivardia et al 2000).

A willingness to give up other social or work activities to continue a workout schedule (Olivardia et al 2000)

Avoiding situations where the individual has to expose his or her body to

others (Olivardia et al 2000).

A preoccupation with inadequate body size, which causes distress or mars the ability to carry out other functions (Olivardia et al 2000).

Continuing with a restrictive diet or using substances despite being aware of the ill effects of so doing (Olivardia et al 2000).

The abuse of protein drinks and other specialist food substances in order to add weight (McCreary et al 2004)

1. 2 Aims of Study

Because the area of Muscle Dysmorphia has only recently been identified, and because the incidence seems to be increasing in the USA and elsewhere, with an estimate of 100, 000 people worldwide suffering from the condition (Leone et al 2005) (though there seems to be a need for further research to determine prevalence, particular in the UK), there is a need to investigate the condition further. Early investigations were concerned to identify the features of the disorder, and later writers looked at conditions associated with the disorder, including social support mechanisms, and also at the experiences, beliefs and behaviours of those with the condition. So far, however, there has been little attempt to look at how the condition develops and the causal mechanisms behind it (Todd and Lavalley 2010). This study therefore aims to look at factors which might explain the condition. These factors can be divided into internal ones (psychological attitudes and personality traits such as excessive expectation of perfection in the sufferer, narcissism and obsessiveness (Davis and Scott Robertson 2000)), and external ones (pressure from peers or the media). There have already been attempts to tie the condition in with causal factors, for example Russell

(2010) has started to look at the role played by perfectionism in the sufferer. There has also been a move from a 'trait' explanation of the condition to one which sees it as a 'state'. That is, Muscle Dysmorphia is no longer wholly seen as an inherent personality trait, but rather as more transient states of mind or behaviour, which are more open to change (Parrott 2001). This move allows for more possibility of intervention and treatment. It is hoped that the present study can extend work such as this.

Because Muscle Dysmorphia is a condition which often occurs in sportspeople, and because sportspeople, especially professionals, are subject to a wide range of pressures including personal standards, competition from others and pressure to achieve constantly better results (Russell 2010), the current study will examine the incidence of Muscle Dysmorphia in sportspeople, particularly body builders, with particular reference to perfectionism, narcissism and obsessive characteristics in their personality, and to pressures from sports related media, other sports people and figures of authority in their sporting world. In particular the study will have the following aims and objectives:

To examine the current incidence of MD, both worldwide and within the UK and other developed nations

To investigate current research on the causes of the condition

To assess whether personality traits of perfectionism, narcissism and obsessiveness play any part in causing the condition (internal factors)

To assess whether media and peer pressure play a part in causing the condition (external factors)

In order to do this, the study will need to overview the relationship between MD and other eating disorders. As eating disorders such as Anorexia Nervosa and Bulimia Nervosa have been recognised for much longer, there exists more research on these conditions. If a link has been established between these conditions and personality traits such as perfectionism, or between the conditions and pressure from outside, and if MD and other eating disorders are linked, there would be grounds the view that perfectionism and other personality traits, and/or peer/media pressure, play a part in the causation and maintenance of MD also.

2. Methodology

2.1 Research Philosophy and Approach

The study takes a positivist approach, assuming the reality of the external world, and that knowledge of this world is possible by broadly scientific methods. It is also assumed that the researcher are objective and detached from the subject studied (Blaxter et al 2006). Although the study does not involve primary research, the author will assume that the researchers involved in collecting data for the secondary sources included in the study were also detached and objective. Therefore there will be a preference for quantitative rather than qualitative data sources. At the same time, this study rejects an interpretivist approach, which suggests that reality is subjective, culturally bound and historically defined. Interpretivism is more concerned with meaning than causal explanations, and assumes that the researcher may influence the results of study (Blaxter et al 2006). Although interpretivism is rejected overall, the current study recognises however that

accounts of Muscle Dysmorphia need to pay attention to the subjectivity and meaning of suffers.

2. 2 Research Strategy, Data Collection and Analysis

While a primary study would be useful, the author would be conducting a secondary research for health reasons. The study will therefore take the form of an systematic literature review, looking at the previous research into MD. “ Systematic reviews aim to identify, evaluate and summarise the findings of all relevant individual studies” (CRD 2009, p. 7). By combining the results of a number of studies, I aim to give a reliable overview of the area under examination. In carrying out the review, I will follow guidelines suggested by the Centre for Reviews and Dissemination (2009)

The study will take a critical perspective on existing work, and will also aim to look at research into the area of factors associated with MD, but a wider range of studies looking at how these concomitant conditions might be explained, and incorporating different theoretical models. It is hoped that such a literature review will develop ideas to be explored in more depth in subsequent primary studies.

Sources for the literature review will be drawn from academic sources, both journals and text books, primarily from the UK and USA, where much existing research has been carried out, but also from further afield where appropriate. The aim is to use primarily sources from the last 10 years or so, but for theoretical models older sources might be appropriate. The methods suggested for selecting appropriate studies set out by CRM (2009) will be followed. That is, at the start of the literature review process, clear inclusion

criteria will be identified, to make sure that selected works fit within the aims and objectives of the study. That is, the inclusion criteria will include studies looking at Muscle Dysmorphia (Adonis Syndrome, Reverse Anorexia) and eating disorders in men, eating disorders in sportsmen, and eating disorders in bodybuilders. Studies looking at the relationship of perfectionism, narcissism and similar to MD and to eating disorders will also be included. CRM suggest a hierarchy of types of study, which will be used to shape inclusion criteria. They suggest that randomised control trials are most reliable sources of information, followed by randomised cross-over trials and cluster randomised trials. Cohort studies and case-control studies are the least reliable (CRM 2009). With this in mind, randomised controlled trials and controlled trials will be preferred, but if this rules out too many studies, cohort studies and case studies will also be considered. The criteria should be neither too broad nor too narrow (CRM 2009). The inclusion criteria will be used to isolate useful key terms for searching electronic databases. The inclusion criteria will be fairly wide initially to ensure adequate material is gathered. Studies from over 10 years ago, and in languages other than English will be excluded. While it is valuable to include as much evidence as possible, whatever the source language (CRM 2009), in this case non-English studies will be excluded due to translation issues and time frame. Also excluded will be textbook articles and unverified internet searches. While it is also valuable to include all possible studies whether published or not, in this case only published studies will be included, as unpublished studies are harder to find and appraise (CRM 2009). In addition, selecting studies for inclusion will take place in two stages as suggested by CRM (2009). An initial stage will look at titles and abstracts to assess for relevance, and a second

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stage will assess the suitability of the full papers to be included. Criteria for inclusion at stage two will include type of study (cohort, case-study and so on), how well research question is defined, how bias and errors are addressed, number of details included, and other measures suggested by CRM (2009).

2. 3. Ethical Issues, Limitations

Because this study does not involve human subjects, there is no need to seek permission from the relevant ethics committee at the University.

However, the author aims to provide a fair and accurate picture of Muscle Dysmorphia, and fairly represent the views of authors included in the study. All sources will be acknowledged, and direct quotes attributed to their writer.

There are a number of limitations to the study. As a secondary review of literature, it does not include a direct study with human participants, due to the author's health issues. A primary study, particularly in this under-researched field, has obvious advantages, but it is hoped that this study will outline some areas which can be investigated by further primary studies.

3. Literature Review

3. 1 Introduction

The following looks at the research into Muscle Dysmorphia (MD). As the condition has only recently been recognised, the first sub-section looks at how it was distinguished, and what characteristics it has. Different ways of measuring the condition are also discussed. Subsequently, the current incidence of MD is discussed together with treatment options. The next section examines ideas about the causes of MD, as well as models which

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have been proposed for its development and maintenance. While factors identified include both external and internal causes, a distinction between ‘trait’ and ‘state’ explanations also offers a perspective on the matter. Finally, the findings in the literature review will be linked to the research questions.

3. 1. 1 The Emergence of MD as a Concept

While it has been recognised for some years that women suffer from body-image problems and eating disorders, awareness that men also suffer from these problems has been slower to emerge, with an assumption that an interest in exercise and health is beneficial. However, from the 90’s researchers gradually became aware that some body builders were inspired by an unobtainable physical ideal. Body building, unlike other sports associated with strength, has a strong aesthetic component, with an interest in physical appearance encouraged (Mosley 2008)

Muscle Dysmorphia first began to be recognised in the late 90’s in the USA, emerging from studies of body dsymorphic disorder. Pope et al (1993; 1997), for example, started to notice that a number of men they studied were preoccupied with their muscularity, and that this impacted negatively upon their lives in a number of ways both physical and psychological. They noted that some body builders, despite their actual appearance, felt they were too small and weak to display their body. Even at this time, the authors suggested the disorder effected considerable numbers of men (Pope et al 1997). Over the next ten years, the condition was investigated further. MD was also called ‘reverse anorexia nervosa’, due to the way sufferers imagine they are insufficiently muscular, and become obsessed with the idea of

putting on bulk, despite their bodies in fact being more muscular than average. The original term coined by Pope et al, 'reverse anorexia', was subsequently renamed 'Muscle Dysmorphia' (Pope and Brower, 2000; Pope et al 2000a; Pope et al 2000b; Pope et al 1999), marking a conceptual move from linking the condition to eating disorders including anorexia nervosa to highlighting the similarities with obsessive-compulsive and body dimorphic disorders (Mosley 2008). It is easy to see why MD might be seen as a form of BDD, as rather than demonstrating dissatisfaction with one body part, the dissatisfaction concerns the whole body. (Choi et al 2002). The debate regarding the way MD should be linked to other conditions will be discussed in more detail below. Despite controversy about the relationship of MD and other eating disorders, it became clear that the impact of the disorder is considerable, and it, like anorexia, can lead to a number of negative health outcomes including heart disease, kidney problems, depression, exercise addiction and steroid use. In some cases it has already led to death (Russell 2010). Further investigations into the nature of the disorder confirmed that men with MD have a poor view of their bodies and are unhappy with their size. In addition, they are concerned not to put on weight (Choi et al 2002).

3. 2 The Nature of Muscle Dysmorphia

3. 2. 1 Symptoms and Effected Populations

Choi et al have defined MD as “ Muscle Dysmorphia (MD) is a new syndrome in which individuals (usually men), although highly muscular, have a pathological belief that they are of very small musculature” (Choi et al 2002, p. 375). Although the condition has been recognised only relatively recently, a substantial amount of information has been collected about its nature,

although less is known about the causes and maintaining factors. In terms of diagnosis Pope et al suggest that MD can be recognised by the presence of at least two of four symptoms:

The subject rejects social, work or recreational commitments in order to maintain workout or diet

The subject avoids exposure of body to others or is distressed / made anxious by them

A pre-occupation with body size and/or musculature causes distress and/or social occupational or other functioning to a clinically significant level

The individual continues on his or her exercise and/or diet regime despite knowing it is detrimental to health (Pope et al 1997)

Early studies suggested that the condition effected body builders more than other groups (Mosley 2008), although it has more lately been linked with another condition known as ‘ exercise dependence’ “ a process in which a person feels compelled to exercise and suffers physical and psychological symptoms when exercise is withdrawn” (Smith and Hale 2004, p. 177).

Exercise dependence is also found in athletes, for example runners, although the psychological characteristics of runners and bodybuilders are different (Smith and Hale 2004).

Suffers display a range of psychological symptoms, for example Choi et al (2002), looking at male weightlifters, found that those with MD had a poorer image of their body and were less happy with their body, as well as being keen to avoid gaining fat. Men with MD also believe they are physically smaller than they actually are, which leads them to attempt to put on more

muscle (Choi et al 2002). Body image is distorted, sufferers want to gain size and fear being seen as thin (Hurst et al 2000). A US and Europe study also found that men with MD felt they needed to be at least 25% more muscular than they were, in order that they be happy with their weight (Williams and Cash 2001). Sufferers typically display obsessiveness over the extent of their musculature (Mosley 2008), with a desire for “larger and more muscular” bodies (Mosley 2008, p. 192) and see themselves as un-muscular, regardless of the body bulk they possess (Lanz et al 2001)

Behavioural symptoms are also displayed. These include increased time spent in the gym, moneyspent on supplements, changed eating patterns, abuse of substances e. g. steroids. Sufferers also pay an excessive attention to diet, working out the nutritional content of all items eaten, and may experience difficulties eating outside the home. Other behavioural traits include appearance checking in mirror and impaired relationships (Murray et al 2010)

The condition was originally assumed to effect mainly men, in contrast with Anorexia Nervosa, which is more often associated with women, but this might be a function of the fact that more men than women are interested in body building. In the early days, women’s body ideal was assumed to be for a thin, toned shape, with men prefer heavier and muscular physiques.

Women were consequently assumed to be more focussed upon weight and weight loss (Gruber et al 1993). However, more recently, women involved in body building have also been noted to have exercise dependence (Fisher 2001; Choi et al 2002). Overall, the relationship of MD to gender seems complex: Smith and Hale’s (2004) study, for example, showed no difference <https://assignbuster.com/what-is-muscular-dysmorphia/>

between men and women body builders in terms of dependence on body building. However, others relate the higher incidence of MD amongst men to differences between men and women, for example suggesting that the difference between men and women in terms of eating disorders remain: women tend to follow restrictive diets, exercise to lose weight and sometimes vomit, with men overall preferring activity and exercise (Segura-Garcia et al 2010). Cohane and Pope suggest that while more girls than boys are dissatisfied with their body, but boys display dissatisfaction as well, which differs from that shown by girls. For example underweight boys are more dissatisfied with their body, compared with overweight girls. Folk et al (1993), for example, found that although no dissatisfaction with body image in boys was present in third grade, by the 6th grade it had emerged. Others point out that while women are under pressure to be slender, men see their body in a different way, and feel an increasing pressure to be muscular, which at the extreme can translate into Muscle Dysmorphia and a range of negative behaviour patterns (McCreary et al 1997).

Strangely, few studies so far have looked at incidence amongst gay and bisexual men, although this group seems to have a greater concern with body appearance and musculature than general population. Cheney (2009) has carried out a study looking at self-esteem, loneliness and MD amongst this population, finding that men with MD also had lower self-esteem and feel more lonely (Cheney 2009). However, McCreary et al (1997) suggest that gay men are more likely to be focussed upon thinness rather than muscle

The impact of MD is significant. The condition can be very distressing to sufferers as it interferes with their work and social life. Some have missed

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job interviews, or left jobs so they can work out more (Murray et al 2010). They may also spend large amounts of money on related equipment or take drugs some of which have been associated with numerous health problems (Mosley 2008), particularly steroids. Many of those who take steroids take higher doses, which can lead to conditions such as kidney failure (Leone et al 2005). Other problems include hypertension and atherosclerosis, alteration of blood lipid levels and coagulation factors, jaundice, hepatotoxicity, carcinoma, tendon damage, influence on insulin production, feedback inhibition of endogenous creatine synthesis, long-term renal damages and psychiatric and behavioral alterations” (Segura-Garcia et al 2010, p. 3103). One study found that 50% of men with MD also use steroids (Pope et al 2004) and suggested this might be an underestimate.

3. 2. 2 The Incidence of Muscle Dysmorphia

There is insufficient research about the incidence of Muscle Dysmorphia, particularly in the UK, for which there is no estimate of rates. Studies so far have suggested that the incidence of body dissatisfaction amongst men has increased over recent years, particularly MD (Olivardia et al 2000; Williams and Cash 2001). Grieve et al (2009) suggest that the rate might be equal to that of women with AN. It is also likely that the incidence of MD will increase further, as more men become involved in weight training. (Choi et al 2002). Some have estimated that the numbers of people with MD worldwide could be 100, 000, although many existing studies have looked at the incidence in the general population rather than athletes. Pope et al (2000b) however suggest that 10% of body builders suffer with the condition. Younger and younger people are being found to have MD (Leone et al 2005). The most

common age of onset is late adolescence (about 19 years) (Olivardia 2001). In addition, it is possible that the incidence has been underestimated as the condition is surrounded with shame and sufferers are likely to be under-represented in the research (Baghurst 2008).

3. 2. 3 Measurement

Given that MD has been defined, symptoms identified and criterion for assessing it established, it is unsurprising that a number of scales for measuring MD have been developed. These include a scale to estimate muscularity, the ' fat-free mass index' developed in 1995 by Kouri et al, using height weight and body fat percentage (Kouri et al 1995). In addition, the ' Body Building Dependency Scale', was developed by Smith et al (1998) to assess extent to which body builders are exercise-dependent. It consists of nine items with Likert scale answers. The scale's content was influenced by research into exercise dependency by Veale and others in terms of the official diagnostic criteria for mental disorders. The scale consists of three subscales for social dependence (a need to be in the bodybuilding ' world'), training dependence (a need to take part in lifting weights) and mastery dependence (a need to be in control). The scale was validated and correlations have been found with other measures (Smith and Hale 2004). Other tests include the ' Body Uneasiness Test' consisting of 34 items to assesses weight phobia, worries about physical appearance, avoidance of body, self-monitoring, depersonalisation (Cuzzolaro et al 2006), the Muscle Dysmorphia Inventory (Rhea et al 2004) which includes 6 dimensions (size and symmetry, protection of physique, dependence on exercise, use of supplements, diet and use of pharmaceutical products) and the Multi-

Dimensional Body-Self Relations Questionnaire, which attempts to evaluate the attitudes of subjects towards their dispositions surrounding their body, particularly behavioural, belief related and evaluative. It consists of 69 items and has seven subscales, which assess appearance evaluation and orientation, fitness evaluation and orientation, health evaluation and orientation and illness orientation, as well as other areas. While high scores on evaluative measures express confidence in appearance, health and fitness, high scores on orientation express high levels of investment in notions of appearance, health and fitness. (Choi et al 2002).

3. 2. 4 Treatment Options for MD

Much research so far has concentrated on describing the disease. This has helped raise awareness of the condition, but it is still little understood, and there are still problems recognising it as the sufferer looks ‘ healthy’ from the outside. The causes are also not understood, although it might be associated with increased social pressure to ‘ look good’, and athletes also feel pressure to compete and succeed (Leone et al 2005). Others suggest it has to do with the way masculinity is perceived in our culture (Olivardia et al 2000), or that the media creates an ideal body shape and size for men, which is culturally contextualised, and which in turn leads to a pressure to conform to this ideal, a pressure which is compounded by peer-pressure (Grieve and Truba 2009). The possible explanations for MD will be discussed in more detail below. Perhaps because of this lack of explanatory models, there are only limited treatments for the condition, but both therapy and drug treatment seem effective. Drug treatments are typically antidepressants, either alone or combined with cognitive behavioural

therapy (Leone et al 2005). Research so far has hardly looked at intervention or treatment plans (Thomas et al 2011), and additionally, many people with MD do not want to be treated. As well as existing treatment, there is a need for positive interventions by those involved in healthcare, to approach the sufferer and convince them they need help. Approaches might include helping sufferer to recognise problem through discussions of body image, group discussions or bringing in support staff. As MD does not have the associated critical health problems of Anorexia Nervosa for example, can be harder to detect, and sufferers might try to hide the condition. Wider social issues also need to be tackled, and it is not just a case of treating symptoms but also looking at wider social, gender and cultural issues (Leone et al 2005)

3.3 The Causes of Muscle Dysmorphia

From the above it is clear that much progress has been made in defining the condition of Muscle Dysmorphia, assessing the symptoms which evidence its occurrence and developing scales for assessment. However, the causes of the condition are much less clear. While there has been research into associated lifestyle factors, psychological traits and the influence of the media, there are few explanatory models as yet, the link with other health conditions (particularly eating disorders and BDD) have to be clarified, and whether the condition should be seen as a ‘trait’ or a ‘state’ has not been fully established. The following section will look at what has been established so far, and where further research is needed.

3.3.1 Link with body building

It became clear quite quickly that there is a link between Muscle Dysmorphia and bodybuilding, but it is not as clear whether the growth of bodybuilding

as a culture has led to a growth in MD, or whether individuals with a tendency towards unhealthy interest in size and body image rather drawn towards body building (Mosley 2008). Olivardia et al (2000) have suggested that those with MD are drawn to bodybuilding (Olivardia et al 2000).

Smith and Hale (2004) looked at the differences between men and women in terms of bodybuilding dependence, and also tested the 150 participants (63 women, 87 men) in terms of the Muscle Dysmorphia Inventory (MDI) (Smith and Hale 2004). The results suggest that there is a correlation between dependence on bodybuilding and Muscle Dysmorphia, although interestingly they found no significant differences between the sexes in this case. Other researchers explored the link between MD and weightlifting, for example Olivardia et al (2000) looked at 24 men with Dysmorphia and 30 weightlifters who did not have the disorder, and found that the men with the condition differed from the control group in a number of ways including steroid use, dissatisfaction with body, attitudes towards eating and depressed mood. They also reported that their condition caused them social shame and embarrassment. Discoveries such as these helped define the condition (Olivardia et al 2000).

Others tried to compare professional with non-professional body builders, to see if there was a difference in incidence of MD between them. Pickett et al (2005) found that professional body builders were not more likely to develop MD, despite spending more time overall in the gym. The authors suggest this might be because competitive body builders may take advantage of positive feedback from trainers and peers to boost their self-image: this is supported by Finkenberg and Teper (1991) who found that competitive body builders
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were significantly more satisfied with their personal and social lives, had higher self esteem and lower levels of self-criticism (Pickett et al 2005). This area would benefit from more investigation, however (Smith and Hale 2004).

More recently, Davies et al (2011) carried out a recent study looking at the incidence of Muscle Dysmorphia amongst bodybuilders who had also used, or currently used, steroids. They also looked at the experience of the disorder for the subjects. Their study involved assessing 60 respondents in terms of the ' Muscle Dysmorphia Inventory', and also 9 in-depth qualitative interviews with selected respondents. Their results were mixed: the quantitative data found no difference between current steroid users and former users in terms of how they experienced Muscle Dysmorphia, however the in-depth interviews revealed that former users were " more susceptible to some of the characteristics of Muscle Dysmorphia" (Davies et al 2011, p. 77), for example tendency to distort body image or be dissatisfied with body image. They suggested that there is a need for more diagnostic tools to help isolate the condition. Thomas et al found that weight training sessions influenced the occurrence of MD symptoms, with regular sessions increasing factors assessed by the Muscle Dysmorphic Disorder Inventory. They suggested there is a need for professionals to take situational variables into account, and observe clients over time before deciding if the disorder is present (Thomas et al 2011). Paul Russell, of Bolton University, has also investigated the relationship between the pressure on professional sportspeople and the incidence of the disorder. (Russell 2010). He has extended the field of interest from body building to other sports, for example professional rugby, where there is an emphasis on size and fitness as well as

a highly competitive atmosphere. Russell's project, starting in 2010, will run for 3 years and aims to extend current research into MD to the UK (Russell 2010). Another recent study by Thomas et al (2011) looked at the impact of weight training on MD symptoms to see if it exacerbated them in people susceptible to condition. They looked at how the degree to which people focused upon getting bigger and more muscular, were unhappy with how they look and suffer negative emotions when miss workout and diet targets and missing work or social commitments related to the extent to which they adhere to training and diet rituals. They found that immediately after a training session symptoms were reduced, with drive for size having the highest correlation followed by appearance intolerance and functional impairment. This suggests that MD is thus subject to change as results of environmental variables. This finding adds weight to the recent idea that MD is a state, rather than a trait, a distinction which will be discussed below.

3.3.2 Psychological Factors

A number of researchers have isolated psychological factors that seem to be involved in causing and maintaining MD. For example, some have suggested that people who are generally unhappy with their appearance, or who have self-esteem issues may migrate towards bodybuilding (Goldfield et al 1998). A number of other studies have found that low-self esteem was associated with body dissatisfaction (McCreary and Sasse 2000).

Tod et al (2010) looked at the relationship between MD and a range of psychological conditions including satisfaction with genitals, sexual self-esteem and depression, and preoccupation with sexuality. They carried out a quantitative study with 79 young adult males who took part in sports and

exercise, finding that there is some indication of reduced levels of genital satisfaction and sexual self esteem, and higher levels of sexual depression correlating with symptoms of MD. (Tod et al 2010).

The internally held body image is central: Choi et al (2002) found that people with MD have less positive body image than is the norm, as well as with their muscle tone, they are significantly more dissatisfied with appearance overall, particularly the lower torso areas. They also (though less significantly) view themselves as less healthy (Choi et al 2002) Tod et al (2008) found that individuals with MD display coping strategies related to body image, and also hold that their body image has an impact negatively on their quality of life (Tod et al 2008). More recently, a UK study looked at the responses of over 500 participants on a number of measures including the Situational Inventory of Body-Image Dysmorphia Short form, the Appearance Schemas Inventory-Revised (looking at self-evaluation of image in terms of self worth and time spent on appearance, The Body Image Disturbance Questionnaire and the The Muscle Dysmorphia Disorder Inventory. They found that “ individuals who had high scores with appearance intolerance, drive for size, and functional impairment tended to score highly on appearance schema self-evaluation, appearance motivation, body image disturbance, and situational body image disturbance” (Jones-Williams 2010, p. 1), and that men’s responses were more strongly correlated than women, suggesting that men place more importance on muscularity (Jones-Williams, 2010). Body image is a complex notion: although it is a subjective factor, it can be heavily influenced by external factors particularly media images: this will be discussed below.

3.3.3 Media Pressure

Muscle Dysmorphia therefore seems to link to an internally held poor body image and low self-esteem in the sufferer. This in turn is linked to the way that masculinity and ideals for the male body are portrayed in the mass media. Being exposed to idealised images of muscles and body can influence the development of body image problems in general (Blond 2008) and MD in particular (Leit et al 2002). MD therefore may link to contemporary culture, in which increasing numbers of images bombarding children and adolescents with images of the 'desirable' body, and corporations targeting men with marketing and advertising in the way women have been targeted for some years (Mosley 2008). Pope et al's (1999) study also showed how cultural ideals of body image for men are changing with a greater than ever public exposure to images of male perfection (Pope et al 1999). More widely, MD may also link to changing gender roles, increasing role of women in work place, men becoming more narcissistic and aware of female gaze (Mosley 2008). Historically, a concern with body image was viewed as exclusively female, more recently studies have shown that men also suffer from body image issues (Cohane and Pope, 2001). Other studies have related that the numbers of men with body dissatisfaction disorders is growing (Olivardia, Pope, Mangweth and Hudson 1995; Andersen 1990)

The media increasingly show images of masculinity unobtainable for the average man, This is reflected in cultural products (Pickett et al 2005), for example Pope et al looked at the changing nature of 'action' figures over the years. Assuming that these figures might reflect changing perceptions of the masculine idea, they found that modern figures are significantly more

developed and muscular (Pope et al 1999). If such images are impossible to attain in practice, it is likely that men will be increasingly dissatisfied with their appearance (Davis et al 1993), and embrace body building as a way to address the gap between cultural images of male desirability and the actuality (Pickett et al 2005).

Issues with body image are also linked with tendencies to perfectionism. Russell (2010) has started to investigate links with perfectionism, and there is a well-documented cultural link between perfectionism and sport (Carson et al 2004). A study by Pope et al (1993) also points out that a high interest in bodybuilding is associated with steroid use, lack of self-esteem, perfectionism and poor body image (Pope et al 1993). This was later confirmed by a study (Pope et al 1997) which found MD associated with unusual attitudes towards exercise and food. Some have argued (Kanayama et al 2006) that perfectionism is exacerbated by steroid use, as initial results are achieved rapidly and according to predicted standards. Later, steroid use contributes to increasing dissatisfaction with the body. In addition, a link between Muscle Dysmorphia and various forms of social pressure has been documented. Grieve (2007), for example, proposes a model to show the factors influencing the disorder. Media influences are one of the causes he proposes, as well as low self-esteem, dissatisfaction with body, and perfectionism. Looking at adolescent boys, Ricciardelli and McCabe also suggests that low-self esteem and perfectionism can contribute to MD, and also suggests pressure from peers and family, as well as taking part in sports, can be involved (Ricciardelli and McCabe, , 2004)

In addition, the bulk of the research so far has been carried out within the USA. More recently, there has been some attempt to address this, with new studies in the UK. Russell (2010), for example, is working on a three-year study of sportspeople, perfectionism and Muscle Dysmorphia at Bolton University, while Thomas et al's (2011) study which looked at the impact of weight training on the condition was carried out at Aberystwyth University. Todd and Lavalley, who were authors in this study, reviewed existing literature in 2010 and proposed a framework to understand the condition which underlined the importance of how the condition develops and is maintained (Todd and Lavalley 2010). At Manchester Metropolitan University Davies, Smith and Collier have been actively studying the condition, looking at Muscle Dysmorphia amongst steroid users (2009; 2011) an area also investigated by Rohmana (2009) who looks at the relationship between MD and anabolic steroid use, suggesting that it may be a factor which leads to the continuation of the condition. Greenwood (2010), also at MMU, looked at the relationship between media images and the desire for muscularity. Other UK writers have explored areas first investigated by USA researchers: Wolke and Sapouna (2007) carried out a study of 100 body builders and found a number of factors in their background associated with the disorder including bullying in childhood and self-esteem. Mosley (2008), on the other hand, takes a different approach, using an account of a bodybuilder with MD as a way of exploring similarities of the disorder with other eating conditions. Though research such as the above has successfully established the existence of Muscle Dysmorphia as a psychopathological condition, and suggested a link between the condition and factors such as perfectionism,

there is still much to discover about mediating and causal factors of the disorder (Bennett, 2006; Olivardia et al, 2000).

3.3.4 Relationship of Muscle Dysmorphia with Other Conditions

There has been considerable debate regarding how Muscle Dysmorphia relates to other eating disorders and conditions related to body awareness. Pope et al (1995) originally suggested that MD be called 'reverse anorexia', thus suggesting a link with eating disorders overall. In Anorexia, the main focus is upon disorders of eating pattern, to which excessive exercising may be added; by contrast with MD the focus is upon excessive exercising (Olivardia 2001). There is evidence that men with MD are similar to men with EDs in terms of their scores on Eating Disorder Inventory Subscales, and they also share disordered eating symptoms (Olivardia 2001). Many studies on men with eating disorders (EDs) were carried out from the 1990's, finding few differences between men and women (Bramon-Bosch et al 2000; Woodside et al 2001) overall. Where differences are found, they suggest that men have a higher incidence of alcohol abuse (Woodside et al 2001), higher levels of personality disorders (Garvin et al 1999) and higher levels of homosexuality (Carlat et al 1997) and perfectionism (Joiner et al 2000). Fernandez-Aranda et al (2004) carried out a study of 40 patients with eating disorders (20 men and 20 women), and found that pre-morbid obesity or being overweight were more common features in men than women. Some also point out that the role played by exercise in AN has been underestimated (Meyer et al 2005; Touyz et al 1993). In addition, nearly 1/3 of men with MD have suffered from another ED at one time, this rate is higher than that in the general population. Twin studies have also suggested

that “ Muscle Dysmorphia may be an alternative phenotype of eating disorders in men” (Murray et al 2010, p. 487). However, very few studies have directly compared AN with MD, and those that have have been flawed for example only using tools designed for eating disorders in women (Murray et al 2010).

However, in their later work Pope et al (1997) see MD rather as a subtype of Body Dysmorphic Disorder (BDD) or a preoccupation with real or imagined facet of appearance (Pope 1997), and indeed the MD sufferer does have a clearly disturbed body image (Mosley 2008). The move from the term ‘ reverse anorexia’ to ‘ Muscle Dysmorphia’ marked a conceptual shift: a change from the notion that MD is an eating disorder, to the idea that it is to do with an exercise behaviour being disturbed (Murray et al 2010). Pope et al (2005) carried out a study of 63 men who had BDD, of which 14 had MD. They found that there were some areas of similarity, for example in regards to severity of condition, extent of delusion, and demographics. However, they also found that those with MD had higher rates of attempted suicide, poorer life quality, and more likely to have abused substances, particularly steroids. MD also seems to share both obsessional preoccupations and impulsive behaviours with OCD (Pope et al 1999). Others have argued, however, that MD is not a form of BDD (Chung 2001) at all, or that it occupies a midpoint between anxiety and eating disorders, with similarities between both (Grieve 2007).

In addition, it has also been argued that MD is more related to obsessive-compulsive disorders (OCD) as they share an “ overlapping pathology – namely intrusive, obsessional fears and compulsive rituals” (Mosley 2008, p. <https://assignbuster.com/what-is-muscular-dysmorphia/>

195). MD includes features more commonly associated with OCD, for example obsessive diet-watching and training, features not found in BDD (Grieve et al 2009). Others have investigated this link, for example Chung (2001) who found that both MD and AN are associated with OC features. A study found that OC features are the best predictor of MD (Maida and Armstrong 2005). Perhaps the condition combines aspects of both types: Maida and Armstrong (2005) found that MD relates both to eating disorders generally and to OCD. OCD features are also found in many EDs (Murray et al 2010). Segura-Garcia et al (2010) also see MD as part of a continuum of eating and OCD disorders, associated with range of psychological conditions “ inducing behavioral disorders and increasing obsessive-compulsive mechanisms for self-control, through extreme physical exercise in men oriented toward a pathological “ body construction”” (Segura-Garcia et al 2010, p. 3104).

Murray et al (2010) suggest that there may have been too much concern over how to classify the disorder, and that this approach is not helpful for research or treatment. They suggest a new criteria defining MD as a “ preoccupation with the idea that one’s body is not sufficiently lean and muscular. Characteristic associated behaviours include long hours of lifting weights and excessive attention to diet.” (Murray et al, p. 485). They also suggest four diagnostic criteria (discussed above). They point out that the focus is upon being too small, rather than a dread of gaining weight (as in EDs) or preoccupation with only one feature of the body (seen in BDD) (Murray et al 2010).

3.3.5 Muscle Dysmorphia: State or Trait?

It has been seen above that understanding of how MD relates to other conditions has shifted since its early conception as an ED, and continues to provoke debate. A further debate regarding whether MD is a 'trait' or a 'state' has implications for possible treatment and further understanding. If MD is a trait, it is an inherent part of the sufferer's make-up, is stable, and is less open to treatment. If however it is a state, the symptoms can fluctuate as a result of changes in variables in the environment. Early research tended to see MD as a static condition, explained by a 'trait' model and concentrating upon the symptoms of the conditions and how it is experienced by the sufferer. There has been little attempt so far to look at the day-to-day variations in the symptoms, nor at the contextual situation which helps condition develop, nor at the ways in which it is maintained (Thomas et al 2011). New research has started to investigate the extent to which MD varies between individuals, finding that variations have been correlated with investment in appearance, distorted perceptions of body image, and high levels of perfectionism (Rudiger et al 2007). Such investigations pave the way for new treatment plans, as if the symptoms of MD can vary, so might interventions help to alleviate the condition (Thomas et al 2011). Tod and Lavalley (2010) also propose a new framework for understanding MD, particularly how the condition is developed and maintained. They point out that existing research has concentrated on social support and the range of emotional attitudes and behaviours of sufferers. They suggest that too little attention has been paid to the development of the condition, and how it continues to be sustained. To address this they suggest a model based on learning theory (Tod and Lavalley 2010). As such, this

approach also offers a 'state' type approach, which can help develop treatments and interventions.

3.3.6 Model of Muscle Dysmorphia

As the research into Muscle Dysmorphia is relatively recent, and has concentrated on describing and defining the condition rather than explaining it and assessing treatment plans, there are relatively few models of the condition. However, as early as 2001 Olivardia suggested a biopsychosocial model which postulated genetic conditions, low self-esteem and a desire to be more muscular as causal factors. In addition, Rhea and Mayhew (2001) suggested a model with causal variables of self-esteem and dissatisfaction with body, as well as psycho-behavioural causal and associated factors including diet, use of supplements, exercise dependence, and body size) together leading to a range of negative outcomes. For Rhea and Mayhew, the development of MD is a direct outcome of dissatisfaction with the body. Cafri et al (2005) also proposed a model plotting a relationship between biological and social factors, psychological function and participation in sport. However, the model which seems to be most comprehensive so far is that of Grieves (2007). He identifies 9 variables, which consist of four different types (social and environmental, emotional, internalised ideal body images and physiological factors). The variables are:

Body mass

Media influence

The internalisation of ideal body image

Low self-esteem

Body dissatisfaction

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Body distortion

Negative affect

Perfectionism

Health Locus of control

The relationship between the factors is complex (see appendix for illustration): perfectionism, for example (trying to achieve unrealistic goals) influences the development of MD both directly and indirectly. Body distortion (seeing oneself as different to how one actually is) is both influenced by and has an influence upon body dissatisfaction, and through this upon the development of MD. Low self-esteem leads to behavioural MD symptoms, as people with low self esteem tend to spend more time on behaviours to do with how they look. Low self esteem is influenced by ideal body internalization and dissatisfaction with body, and has an impact upon body dissatisfaction. The media and its influence has a particularly strong role in Grieve's model. The ideal portrayed in media is also reinforced by family, peers and healthcare experts. Most studies of the media influence have concentrated on visual depictions of men's bodies. Individuals are often aware of media pressure to conform. Grieve, following Shaw and Waller (1995) suggest that Festinger's social comparison theory can be used to understand how the media impact upon self-evaluation and eating disorders, suggesting that the process by which people evaluate themselves is based on comparing themselves with others. Media impact directly upon another of Grieve's variables, the internalisation of ideal body image. This relationship is based upon Higgin's ' Self-discrepancy theory', the idea that people have different domains of self which interact. This interaction brings

about different behaviours, and when there is a mismatch between the domains negative emotional and motivational states result, including MD. Media influences also influence body dissatisfaction, the difference between how the perfect body and one's own body are perceived. This is related to current cultural standards. Men have generally been less dissatisfied, but this is changing (Grieve 2007).

So far, Grieve's model seems to be the most developed model, and the one with the most potential for influencing treatment and intervention for MD.

3. 4 Discussion

The areas the study set out to investigate were as follows:

The current incidence of MD

Current research on the causes of the condition

The role played by personality traits in the condition

The role played by media and peer pressure in causing the condition

The literature review has slightly altered the initial focus. There was found to be very little information on the incidence of the condition. Further, in order to investigate the causes of MD, it was necessary to look in detail at the nature of the disorder. It also became apparent that while it is possible to separate out 'internal' and 'external' traits in the causes of the disorder, and while both media and other factors play a role, it needs to be understood in a more complex way, by taking into account its relationship with other disorders, by assessing whether it is a 'state' or a 'trait', and by understanding the models which have been proposed to explain the

condition. The following discussion will bear in mind these revisions to the aims for the research.

There is a clear need to investigate this area, as there are many gaps in the current research. For example, there is little information about the incidence of the disorder, particularly within the UK, and research has tended to look at the way the disorder should be classified and discovered, rather than into treatment options or explanations of how it occurs and how it is maintained. As it has been shown that interest in physical exercise is increasing, that men are increasingly subject to pressures to conform to certain ideals of physical attractiveness, and that MD is also increasing, the present study aims to provide more information on the area to inform future studies, particularly primary studies.

In terms of the incidence of MD, the study has shown that there is very little information available about this. Some US studies estimate the worldwide incidence may approach 100, 000, but no information has been found for the UK. There is also a need for more investigation about the demographics of sufferers (their age, social status, family background etc.). The nature of the disorder is complex, and sufferers display a wide range of symptoms including behavioural ones (diet-related changes, mirror-checking, self-destructive behaviours) and mental ones (belief that one is thinner and less muscular than one actually is, perfectionism, obsession about muscle size)

In terms of research into the causes of the condition, there has been, to some extent, a move from seeing the disorder as a form of eating disorder, and akin to Anorexia Nervosa for example, to seeing it as a disorder related

to the body dysmorphic disorders. However, there is still debate on this issue, as well as discussion regarding how MD relates to obsessive-compulsive disorder. Research into the condition has only been carried out since the 1990's, and early studies were more concerned with identifying the associated factors and symptoms than in looking into causal mechanisms. This has meant that treatment for the disorder has also been overlooked.

Causes of the condition seem to cover both 'internal' or psychological factors, primarily low-self esteem and obsessive traits, and 'external' ones, particularly the role of the media in portraying unrealistic images of men. While objectification of the body in the media was initially associated with women, over the past 30 years or so there has been a vast growth in idealised images of men in magazines, films and on TV. This is partly associated with a growing emancipation of women, who typically earn more and wield more power, with more men taking a 'feminised' role. Not only are there more idealised images of men, the images are becoming more extreme and unrealisable, with heavier musculature. This change is even reflected in children's toys. In addition, one of the factors most associated with the condition is an interest in bodybuilding, strength and fitness, and to a lesser extent other competitive sports. Not all weightlifters and sportsmen (or women) go on to develop MD, but a large proportion of those with MD are involved in the bodybuilding or sports world (although not necessarily professionally involved).

While associated factors can be separated into the subjective or internal and more external cultural and social conditions, the relationship between these factors and their role in causing and maintaining the condition is complex.

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Media images can effect internalised images of the ideal body shape, and a pre-disposition to perfectionism can both feed MD and be exacerbated by peer pressure. There seems to be a need for a model to explain the complexities of this relationship, and the best model for this purpose seems to be Grieve's (2007), with its 9 interconnected variables. There also seems to be a need for research to move focus from looking at the symptoms of the disorder to investigating how best to prevent and cure it. This can only be done with a cohesive and comprehensive model of the sort proposed by Grieve. While some work has already been done on treatments for the disorder, there is also a need to look at wider options, not merely drug and CBT treatments but educational and other interventions which can be incorporated into a wider public health programme and which take into account the complex nature of this disorder and the links with social and cultural factors.

4. Conclusions and recommendations

The above study has looked in detail at the disorder Muscle Dysmorphia. It has traced the history of research into the disorder, which became apparent only in the 1990's, following the discovery of eating disorders in women and body dysmorphic disorder. The study has looked at the nature of the disorder, covering measurement, symptoms, incidence and treatment, before moving on to look at the causes of the disorder. While a distinction can be made between psychological factors such as low self-esteem associated with the condition and external, social or cultural factors including media and social influence and the role played by participation in bodybuilding and other sports, the causal mechanisms behind the disorder

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are complex and still little-understood. There is a need for further research both into the incidence of MD and into the causal mechanisms, although Grieve's 9 variable model suggests a way to understand the complexities of the situation. There is also a need for research into interventions that might help stop sufferers developing the condition, and help them recover when they have it. Although treatment options in the form of drugs and CBT have been used, there is scope for wider educational interventions for example targeted at schools or gyms in the community.

A number of areas for future research are suggested, which are summarised as follows (There is a particular need for research within the UK, as the bulk of studies have taken place in the USA so far):

What is the incidence of MD within the UK, both within the general population and sub-populations

Is MD found in other sports as well as bodybuilding, and if so, which

The relationship between images of ideal male bodies in the media and the internalised mental images, and how both relate to MD

What is the most effective type of treatment for MD (drug based, CBT or other 'talking' therapies, or educational interventions)

What is the nature of MD in women

To what extent are gay men more or less susceptible to the condition

What role does peer pressure and influence play in the creation of the condition

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