

# Muscle Dysmorphia and Use of Ergogenic Products: Methodological Aspects

## Letter to the Editor

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## DEAR EXECUTIVE EDITOR OF RBME

The article entitled: “Muscle Dysmorphia and the Use of Ergogenic Supplements in Athletes” (vol. 16, # 6 – Nov/Dec, 2010), presents important results concerning the correlation between the presence of “muscle dysmorphia risk” and the use of ergogenic products. However, some methodological aspects deserve further discussion.

The identification of the patients with muscle dysmorphia occurs through the observation behavior basically in three aspects: exercises of muscle strengthening, eating habits or diet and social relations<sup>(1)</sup>. Regarding the practice of muscle strengthening exercise, the training sessions of these individuals are usually long, and missing one session is a reason for great anxiety or sadness. In the diet, excessive concern with the quantity of fat and calories ingested as well as the frequent use of ergogenic substances and anabolic steroids, are their main characteristics. Socially speaking, the individual acts with difficult relationships with other people, since he/she prefers keeping his/her diet than going to any social event.

Therefore, the used instrument MASS (*Muscle Appearance Satisfaction Scale*), when carefully contemplating all the symptomatology becomes a diagnostic scale for muscle dysmorphia<sup>(2)</sup> and not as an identification instrument for ‘risk of muscle dysmorphia’, as the authors have suggested. Nevertheless, the absence of further studies which investigated important aspects of the scale such as sensitivity and specificity minimize the power of the MASS as a diagnostic instrument. Thus, a way of optimizing the use of MASS would be the use of fraction sums, a strategy used in a previous investigation<sup>(3)</sup>, by the five dimensions of MASS: satisfaction with self-image, exercise dependence, checking, use of ergogenic substances and physical damage. This way, it would be possible to investigate whether the use of ergogenic products would be related to other aspects of the symptomatology of the muscle dysmorphia. It is important to highlight that the use of ergogenic products is part of the disease’s symptomatology and therefore, is included in the MASS so that the individuals users of ergogenic products would have an increased chance to reach the cohort point and be classified as under ‘risk of muscle dysmorphia’, which, could have somehow compromised the comparability between the two groups (with risk and without risk of muscle dysmorphia).

Concerning the use of ergogenic products, an observation should be made. The limited number of participants, due to the resistance of these individuals in participating in the study for being afraid to declare the use of ergogenic substances reported by the authors, besides decreasing the statistical power, may have underestimated the prevalence of muscle dysmorphia in the target population. In order to avoid this obstacle, a methodological alternative is to work with the diagnostic suspicion through anthropometric indices proposed by Oliveira and Araújo<sup>(4)</sup> and/or with monitoring of risk behavior in the training sessions.

In short, the present text has the aim to contribute to the methodological discussion on the investigations on muscle dysmorphia, suggesting bolder investigation strategies.

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## REFERENCES

1. Pope HGJ, Gruber AJ, Choi P, Olivardia R, Phillips KA. Muscle Dysmorphia. An Underrecognized Form of Body Dysmorphic Disorder. *Psychosomatics* 1997;38:548-56.
2. Mayville SB, Williamson DA, White MA, Netemeyer RG, Drab DL. Development of the Muscle Appearance Satisfaction Scale: A self-report measure of the assessment of muscle dysmorphia symptoms. *Assesm* 2002;9:351-60.
3. Sardinha AO, Oliveira AJ, Araújo CG. Dismorfia muscular: análise comparativa entre um critério antropométrico e um instrumento psicológico. *Rev Bras Med Esporte* 2008;14:387-92.
4. Oliveira AJ, Araújo CG. Proposição de um critério antropométrico para suspeita diagnóstica de Dismorfia Muscular. *Rev Bras Med Esporte* 2004;10:187-90.