

No Risk of Anorexia Nervosa in Young Rhythmic Gymnasts: What are the Practical Implications of what is Already Know?

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Abstract

In aesthetic sports success is strongly influenced by body appearance and eating disorder risks prevail in aesthetic athletes. Previous studies demonstrated that rhythmic gymnasts showed a "lean, almost anorexic-like physique" but no psychological distress. Recently, researchers used body image perception and dissatisfaction to detect gymnast eating disorders. The results showed that elite rhythmic gymnasts are very thin but have a precise estimation of their body image, and this condition leads to hypothesize that they are not at risk for eating disorders development. A correct evaluation of one's own body image is essential in prevention of pathological eating behaviours.

Keywords: Body image; Leanness; Eating disorders; Gymnastics

Introduction

Background

In the last few decades woman participation in sport is largely increased. However significant problems with eating disorders were identified in female athletes and several of them were deemed to be at risk for anorexia nervosa and bulimia nervosa. More specifically, the prevalence of eating disorder risk has been found in aesthetic sports and those in weight-restricted sports [1]. In rhythmic gymnastics success is strongly influenced by visual appeal, and body aesthetic appearance, and leanness have particular relevance both in performance and appearance the combination of excessive exercise, reduced food intake, and the high level of stress in training and competition, determine a lean, almost anorexic-like physique of elite rhythmic gymnasts. The technical team pressure, put on athletes, in order to maintain weight levels, is an important risk factor [2]. In addition, the lack of medical control and coach organization, especially on sub-elite gymnasts, may be a further important risk factor, and the special clothing, used during competitions, can even whet the problem of weight control [3]. Previous studies conducted on international level gymnasts and sub elite Italian gymnasts stated that dietary intake was relatively low in calories but had a correct distribution of daily energy intake among the macronutrients, an high intake of vitamin A, and fibres [4,5]. Reviewing the pertinent literature, we may deduce that the elite rhythmic gymnasts did not present problems related to attitudinal aspects of anorexia nervosa [6]. Bacner-Melman et al. [7] demonstrated that aesthetical athletes appear to enjoy excellent psychological health. Klinkowski et al. [8], relieved that the rhythmic gymnasts showed a "lean, almost anorexic-like physique" but no psychological distress, comparing to anorexic patients of the same age. These results lead to the conclusion that elite rhythmic gymnasts may not be receiving a psychological treatment to meliorate their eating behaviours.

The role of body image

To better understand and investigate the causes of eating disorders, the body image could be a simple tool used by researchers and professionals, working with young athletes. A lack of satisfaction regarding one's own appearance seems to be linked with other disturbances such as anxiety, depression, low self-esteem, and self-confidence, especially amongst adolescents. Theorists agree that perceptions, such as body image distortion and dissatisfaction, could be associated to the development of disordered eating and symptoms of unhealthy weight control. A practical methodology to estimate body image perception, and consequently eating disorder risks, is

the Stunkard Figural Rating Scale [9]. The Figure Rating Scale was introduced as a self-evaluation of the personal body size. It consists in a series of nine Body Mass Index (BMI)-based silhouettes, sex-specific and ordered from extremely thin to very obese in appearance. These pictorial images of body shapes are associated with 9 specific BMI increments. First, participants were required to rate how they perceive the current figure of their physiques and then their desired physique perceptions.

The magnitude of body image dissatisfaction is calculated as follows: Perceived current figure – Desired physique perceptions. Before 2001, it was hypothesized that athletes of aesthetic sports and non-athletes differ in body image disturbances. The risks of body image disturbance were linked to performance advantages and contextual pressures, and the term of "anorexia athletica" has been proposed to describe a subclinical anorexia form affecting athletes.

Body image and rhythmic gymnastics

Elite rhythmic gymnasts wish to achieve long-term high results maintaining a specific somatotype. In a recent study [10] 81 rhythmic gymnasts were interweaved (age range 13 to 20) and a control group of 80 other sport athletes of the same age. They were requested to fill the Figure Rating Scale, introduced as a self-evaluation of the personal body size, compared with their BMI (Body Mass Index). Gymnasts had a BMI value of 17 ± 1.8 (underweight), whereas the control group had a BMI of 20.8 ± 1.1 (normal weight). The highest level gymnasts had a realistic image of their own body, corresponding to their BMI. An adequate perception of body image must correspond to their BMI. Rhythmic gymnastics may exert a general effect of enhancement of the accuracy of body measurement esteem. The lower level gymnasts perceived themselves significantly fatter than the real size. In control group, range differences between the perceived body image and the real body size were revealed. The overall sample, wished to be more

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Received November 08, 2013; Accepted November 11, 2013; Published November 14, 2013

Citation: Borrione P, Battaglia C, Di Cagno A (2013) No Risk of Anorexia Nervosa in Young Rhythmic Gymnasts: What are the Practical Implications of what is Already Know? J Nutr Disorders Ther 3: e115. doi:10.4172/2161-0509.1000e115

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slender. Elite gymnast perfectionism and self-awareness could increase obsessiveness, similar to anorexic-like symptoms [7]. Nevertheless, the gymnasts are more satisfied with their body than general people and had high self esteem, which supports the general wellbeing and the firm belief that sport may contribute to their psychological health.

In conclusion, the elite rhythmic gymnasts are very thin but they have a more a precise estimation of their body image than the other sport athletes, and this condition leads to hypothesize that they are not at risk for eating disorders development. A correct evaluation of one's own body image is essential in the prevention of pathological eating behaviours [8]. Even if gymnasts pay particular attention to the weight control, this discipline offers a variety of opportunities for supporting a correct physical control and development.

What are the Practical Implications?

Adolescent athletes engaged in "lean sports", are required to be lightweight and slender. However they should be encouraged to become responsible regarding their healthy eating behaviours and their nutrition. Interventions of those working with athletes could reduce female athletes' risk of developing eating disorders. The use of Figure Rating Scale could be a simple tool to supervise the potential risk for the development of eating disorders, in adolescents in general and in this particular population. This self-report questionnaire, about gymnast's perception and gratification of their own body image, could be administered in sporting events or during training sections, giving the chance for quick and simple answers, in order to favour the immediate and correct eating disorder identification.

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