

Risk of eating disorders among different dance majors at a dance conservatory

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Abstract:

Introduction: Dance is a high risk activity for eating disorders (Ed). It seems that there is a lack of studies focused on the analysis of Ed risk among dance genres. **Method:** 176 female dancers from different genres (aged 12-20) from a professional dance conservatoire take part in the study. The Eating Attitudes Test, 26 was administered. **Results:** ballet dancers showed higher scores in items related to eating problems compared to others genres. Contemporary dancers presented a low concern of having fat body areas and they scored the lowest in diet habits. Contrary to expectations, the most worried about having fat body parts were flamenco dancers. The vast majority of dancers with moderate and high risk of ED belonged to ballet and flamenco. **Discussion:** it is analysed the existence of risk and protective factors that makes certain genres likely to develop an ED.

Keywords: Dance genres. Risk factors. Eating disorders. Prevention.

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INTRODUCTION

Recent studies indicate that dancers are more likely to suffer from eating disorders (EDs) and dissatisfaction with their body image (BI) (Benn, 2001; Ribeiro & Da Veiga, 2010; Schluger, 2009). However, certain studies have shown that dance as an activity does not necessarily increase the likelihood of an ED (Toro, Guerrero, Sentis, Castro and Puértolas, 2009), but that certain environmental factors connected to dance are what make dancers a risk group for this type of disorder. Some of the most influential environmental risk factors in BI dissatisfaction include the frequent use of mirrors (Radell, Adame and Cole, 2004) and dance uniforms, leotards and tights (Price and Pettijohn, 2006). Given that each dance style has its own environmental factors (i.e. ballet is much stricter in terms of uniforms than modern dance), it is logical to suppose there would be differences in the risk of ED based on the dance style a person chooses to study. Recent studies have shown that ballet dancers are much more concerned with diet, displaying more bulimic behaviors and greater oral control than modern dancers (Schluger, 2009). However, given the fact that few studies have focused on other dance disciplines, Nordin-Bates, Walker and Redding (2011) suggest analyzing the possible discrepancies between different dance styles. The objective of this study is thus to examine the prevalence of eating-related problems and the risk of developing EDs within each dance major.

METHOD

Participants: A total of 176 dancers ages 12-20 ($X=15.25$; $DT=2.30$) at a professional dance conservatory participated in the study. Table 1 shows the distribution of participants by their major and by BMI and Table 2 provides a description of the features of each major.

Instruments: Eating Attitudes Test, EAT-26 (Garner, Olmsted, Bohr and Garfinkel, 1982; adapted by Gandarillas *et al.* 2002). Sub-scales on diet, bulimia and oral control (above 20, high risk; 10- 20, moderate risk; and under 10, slight risk).

Procedure: The instruments were administered according to the application and correction norms proposed by the original authors. Before taking the test, the participants signed an informed consent form in accordance with the recommendations of Del Río (2005). To corroborate the existence of differences on the EAT-26 scales among dancers with different majors, the Kruskal-Wallis test was used. This test, along with the Mann-Whitney U test, was used to corroborate the existence of significant differences among majors for each of the items on the EAT-26.

Results: No statistically significant differences were detected by major in any of the three original subscales of the EAT 26, although the percentage of girls at risk (slight, moderate and high) varied for each group. Table 3 shows the dance majors with significant differences.

Although few differences were found, it is interesting to see how the percentage of girls at risk varies from group to group (see Table 4).

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Table 1: Distribution of participants by major and by BMI

	Ballet	Modern Dance	Flamenco	Spanish Dance
N	48 (27.3%)	22 (12.5%)	57 (32.4%)	49 (27.8%)
% of girls with BMI of less than 17.5	20.8%	18.2%	8.8%	14.8%

Table 2: Description of the features unique to each of the four majors based on the information provided by the conservatories whose dancers participated in the study.

Ballet: More demanding in terms of uniform (leotard and tights). The pas de deux exercises require lifting and the current ideal aesthetic among ballet dancers is extreme thinness (Benn, 2001).

Modern dance: Teachers in this discipline are generally more flexible about what students wear. Creativity and the acceptance of different types of movement characterize this style. Improvisation is encouraged and the mirror is not used very often (in addition, modern dancers often are required to take ballet classes to improve their technique).

Flamenco: Shirts, shawls and accessories that cover the body are allowed. The demands of flamenco dance companies are apparently less rigorous in terms of the bodies of the dancers than other disciplines like ballet. At the conservatory, flamenco dancers often are required to take ballet classes to improve their technique.

Spanish dance: At the conservatories, the uniform was important for Spanish dance; girls wear leotards and tights to demonstrate the demanding bolera technique and jumps. Castanets are used and ballet techniques are also incorporated to this major.

Table 3: Significant differences among dancers with different majors based on the EAT-26 Items

Ítems EAT-26	Kruskal Wallis		Mann Whitney		
	c2(3)	p	U	p	z
(1) "Other people think that I am too thin." [13]	8.12	0.04*	974 (F y E)	0.008**	-2.65
(2) "I am preoccupied with the idea of having fat/cellulite on my body." [14]	7.84	0.049*	356.5 (B y C)	0.026*	-2.23
			395 (C y F)	0.009**	-2.61
			363 (C y E)	0.032*	-2.14
(3) "I eat diet foods." [17]	13.5	0.004**	977 (F y E)	0.005**	-2.79
			723.5 (B y E)	0.001**	-3.32
			334.5 (B y C)	0.007**	
(4) "I am dieting." [23]	16.4	0.001**	7.57 (B y E)	0.001**	-1.21
			433 (C y F)	0.018*	-2.87
			976 (F y E)	0.004**	
(5) "I enjoy trying new rich foods." [25]	7.91	0.049*	1086 (F y E)	0.043*	-2.02

*p ≤ 0.05 ** p ≤ 0.01 a 1 = Ballet; 2 = Modern dance; 3 = Flamenco; 4 = Spanish dance

Table 4: Percentage of students by major who had a high, moderate or slight risk based on the EAT-26

	Slight (<10)	Moderate(10-20)	High (>20)
Ballet	58.3%	31.3%	10.4%
Modern dance	72.7%	22.7%	4.5%
Flamenco	57.9%	29.8%	12.3%
Spanish dance	31.3%	16.3%	12.2%
Total	63.6%	25.6%	10.8%

DISCUSSION AND CONCLUSIONS

According to the results of the BMI, people majoring in modern dance and ballet were the least likely to maintain the right weight for their age and height. In terms of percentages, 18.2% of modern dancers and 20.5% of ballet dancers are underweight.

Although 10.2% of ballet dancers display behaviors indicating a risk of developing an ED, this percentage is slightly higher among those who are majoring in flamenco (12.3%) and Spanish dance (12.2%).

The results support those of previous studies that have indicated a high risk of ED among ballet dancers (Nordin-Bates, 2011; Schluger, 2009). The unexpected finding was the high risk of ED among flamenco dancers. Perhaps in the future, it would be interesting to study whether having a higher BMI increases the risk of anomalous and unhealthy behaviors among flamenco dancers.

When the EAT-26 items were analyzed individually, the following anomalous behaviors were detected among ballet dancers: *dieting, eating diet foods and the concern of having fat and/or cellulite on my body*. There were significant differences when these responses were compared with dancers majoring in modern dance and Spanish dance.

The high percentage of people with a moderate and high risk of developing an ED justifies the need to design programs to promote healthy eating habits.

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