

An investigation into eating attitudes, body image satisfaction and nutritional status of dance and non-dance students

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Dancers undergo huge pressure from the industry to adhere to a specific body shape; therefore, studies have demonstrated a high prevalence of eating disorders and body image dissatisfaction in comparison to non-dancers^(1,2,3). Despite previous studies focusing on dancers, there is limited research in the area of university dance students. Commonly accompanied with disordered eating behaviours and body image dissatisfaction is a failure to meet nutritional requirements; however, except for the examination of calorie intake⁽⁴⁾, investigation into the nutritional status of dancers is scarce. The aim of this study was to investigate the differences between dance students and non-dance students in terms of eating attitudes, body image satisfaction and nutritional status.

After gaining ethical approval, female dance students ($n = 15$) and non-dance students ($n = 14$) were recruited. Anthropometric measures including height, weight and body fat percentage were conducted using standardised procedures and participants completed a three day validated food diary. Eating attitudes and body image satisfaction were assessed using the EAT-26 questionnaire⁽⁵⁾ and Stunkard Figure Rating Scale, respectively. The dietary intake data was analysed using Microdiet software (v3) and statistical analysis was conducted using SPSS Statistics (v22). Statistical significance was set at 0.05. Normal distribution was investigated using the Kolmogorov-Smirnov test of normality and because the main variables were not normally distributed ($P < 0.05$), they were investigated using the nonparametric Mann Whitney U Test.

Dance students scored significantly higher than non-dance students on the total EAT-26 and on the EAT-26 subscales of dieting and oral control (Table 1). Five dance students, as opposed to zero non-dance students, scored above the EAT-26 cut-off for being at risk of an eating disorder. There were no significant differences in nutrient intake, anthropometric measures or body image satisfaction between dance and non-dance students (Table 1).

Table 1. Median, 25th percentile and 75th percentile of parameters measured in dance students and non-dance students (* $p < 0.05$, ** $p < 0.01$).

Parameter	Dance students (N = 15)			Non-dance students (N = 14)		
	Median	Quartiles		Median	Quartiles	
		P25	P75		P25	P75
Weight (kg)	64.9	59.3	67.6	67.6	56.2	77.3
Body mass index (kg/m ²)	24.2	22.3	24.8	24.3	22.2	27.5
Body fat (%)	27.6	24.0	33.3	31.5	25.0	36.9
Calorie intake (Kcal/day)	1699.9	1077.1	1931.9	1811.0	1336.3	2003.9
Protein intake (g/day)	76.2	59.7	93.7	70.8	65.2	78.7
Carbohydrate intake (g/day)	224.1	140.8	233.5	210.0	149.9	272.4
Fat intake (g/day)	63.0	35.2	73.3	77.5	55.3	81.0
Total EAT-26 score	14.0*	11.0	21.0	6.0*	3.0	15.5
EAT-26 subscales:						
Bulimia and food preoccupation	2.0	0.0	3.0	0.0	0.0	1.25
Oral control	2.0*	1.0	4.0	1.0*	0.0	2.25
Dieting	12.0**	7.0	15.0	5.0**	3.0	9.25
Body image dissatisfaction	1.0	1.0	2.0	1.0	1.0	2.0

Results from the EAT-26 questionnaire support previous studies and show that students studying dance are at higher risk of developing an eating disorder and are more likely to partake in dieting practices than non-dance students. These findings suggest negative eating behaviours are present within Higher Education; therefore, an intervention at this level may be necessary and beneficial.

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