Nutrition and disordered eating in dance: Artistry, athleticism and the role of the multidisciplinary support team

A one-day symposium organised by Dance UK

Monday 30th April 2012

Abstracts
An introduction to the prevention and early intervention of disordered eating and eating disorders
Dr Huw Goodwin

Eating, weight, and shape concerns lie on a continuum from mild concerns through disordered eating behaviours and thoughts, to their most severe end point: clinical eating disorders. The risk factors for such problems within the dance community include personality characteristics (e.g., perfectionism) and environmental factors (e.g., the demands of dance training). The available literature is still relatively scarce on dance-specific prevention and intervention work. However, common prevention and intervention from the eating disorder literature would suggest creating a safe and supportive environment around body weight and shape, as well as having effective early identification policies and procedures that increase the chances of picking up any problems early. When an issue does arise, the matter should be handled in a supportive fashion to increase the student’s motivation to seek care and support.

What are the eating disorder / disordered eating warning signs to look out for?
Answer: They may include the following:

Psychological signs
- Over-emphasis on the importance of weight and diet to performance
- Extreme focus on diet and weight to the point of preoccupation (including diet obsessions)
- Intense fear of gaining weight
- Changes in personality / mood swings / anger outbursts
- Setting unrealistic high standards
- Distorted perception of body shape / weight
- Anxiety, depression, low self-esteem, guilt
- Isolation and withdrawal

Physical signs
- Female Athlete Triad (Disordered eating, amenorrhea and osteoporosis)
- Recurrent injury
- Dizzy spells and fainting
- Difficulty sleeping
- Swollen stomach, face and ankles
- Downy hair on the body
- Poor circulation and feeling cold
- Dry, rough skin
- Frequent weight change
- Sore throat, tooth decay & damaged knuckles
- Swollen salivary glands

Behavioural signs
- Trips to toilet post-eating
- Eating rituals (tiny pieces; eating alone, secret eating)
- Big, baggy clothes
- Periods of fasting
- Extreme compulsive exercise (rigidity, compulsivity, lack of enjoyment, secrecy) – exercise as an end in itself
- Reluctance to socialise
- Evidence of weight control behaviours (diuretics, laxatives, self-induced vomiting, diet pills, stimulants)
Beat
Louise Dunne

A brief outline of Eating Disorders and Beat’s work; the importance of ‘First Contact’ with treatment services and the impact of stigma on how and when people initially access support and treatment.

Motivational processes and the prevention of disordered eating and diminished functioning in dancers: Research findings and implications for practice
Professor Joan L. Duda, PhD

Research, grounded in contemporary theories of motivation and optimal functioning, indicate that individuals are more likely to thrive and experience well-being when they participate in a social environment which is task-involving, autonomy supportive, and caring. In contrast, settings marked by an ego-involving atmosphere and controlling behaviours are linked to indicators of diminished functioning and compromised mental and physical health (such as negative body image, perfectionism, poor self esteem, and disordered eating). The relevant literature is comprised of investigations that have been conducted in a number of performance-related contexts (such as education, sport, the workplace), including dance. In my presentation, I will provide a brief review of the principles of quality motivation and the role of the environment created by significant others in supporting adaptive engagement in dance. Research findings, from studies conducted on dancers in particular, will be highlighted. Examples will also be provided from my more than 10 years of experience working with vocational and professional dancers as a performance psychology consultant. The presentation will conclude with some evidence-based strategies that dance teachers, artistic directors and health care professionals working with dancers can employ to set the stage for healthier participation in dance.

Applied nutrition for maintaining health and ensuring performance for young dancers
Jacqueline Birtwisle, BSc, MA, RD

It has been suggested that nutrition counselling is eclectic in that it employs cognitive behavioural, interactional, relational and educational techniques (Herrin 2003). My experience as a dietician working with many talented young people in elite sport and dance over the years would support this view. I would like to share my recommendations for healthy eating practices using the Swiss Food Guide Pyramids for Athletes (Mettler et al, 2009) – an old concept revisited and expanded for athletes to provide a valuable, visual, educational tool for male and female students and how it fits in with healthy weight control and with nutrition intervention when over-coming disordered eating. The role of, and where to find, useful nutritional supplements will also be discussed, with particular reference to Iron, Calcium and Vitamin D. Finally I will talk about assessment of ‘reasonable weight’ and nutritional health for students and professionals drawing upon experiences within elite sport. Throughout my presentation I hope the audience hears frequent reference to working within a multidisciplinary team.

Food Pyramid for Athletes

For athletes exercising ≥5 hours per week

Based on the Food Pyramid for healthy adults of the Swiss Society for Nutrition

<table>
<thead>
<tr>
<th>Category</th>
<th>Basic</th>
<th>Sport</th>
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<tbody>
<tr>
<td>Sweets, salty snacks and sweetened drinks</td>
<td></td>
<td>The same applies to the athlete. However, it should be considered that alcoholic beverages or low sodium drinks may delay recovery after exercise. For each additional hour of exercise, add 1 serving. The additional 1 serving can be chosen from any of the foods listed.</td>
</tr>
<tr>
<td>Oils, fats, and nuts</td>
<td></td>
<td>For each additional hour of exercise, add 1 serving. The additional 1 serving can be chosen from any of the foods listed. The basic pyramid provides enough protein and calcium for the athlete too, so no additional servings are necessary.</td>
</tr>
<tr>
<td>Milk, dairy products, meat, fish, and eggs</td>
<td></td>
<td>The same applies to the athlete. The basic pyramid provides enough protein and calcium for the athlete too, so no additional servings are necessary. For each additional hour of exercise, add 1 serving. The additional 1 serving can be chosen from any of the foods listed.</td>
</tr>
<tr>
<td>Whole grain products and legumes...</td>
<td></td>
<td>The same applies to the athlete. The basic pyramid provides enough protein and calcium for the athlete too, so no additional servings are necessary. For each additional hour of exercise, add 1 serving. The additional 1 serving can be chosen from any of the foods listed.</td>
</tr>
<tr>
<td>Vegetables and Fruit</td>
<td></td>
<td>The same applies to the athlete. It is also accepted to eat more than 3 servings of vegetables and 2 servings of fruits if tolerated without gastrointestinal issues. For each additional hour of exercise, add 1 serving. The additional 1 serving can be chosen from any of the foods listed.</td>
</tr>
<tr>
<td>Beverages</td>
<td></td>
<td>The same applies to the athlete. The basic pyramid provides enough protein and calcium for the athlete too, so no additional servings are necessary. For each additional hour of exercise, add 1 serving. The additional 1 serving can be chosen from any of the foods listed.</td>
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Servings from the basic pyramid

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The Food Pyramid for Athletes is based on the Food Pyramid designed and developed by the Swiss Society for Nutrition (Schweizerische Gesellschaft für Ernährung) for healthy adults, which will be referred to as the Basic Food Pyramid. The Basic Food Pyramid has been expanded to cover energy and nutrient needs for daily exercise typically performed by athletes and active individuals.

The Food Pyramid for Athletes is aimed at healthy adults exercising on most days of the week for at least one hour or more per day at moderate intensity, totaling at least 5 hours of exercise per week.

Moderate intensity represents continuous activities such as swimming (2.5km/h), running (8km/h), or cycling (2 watts per kg body mass) or the “stop and go” of most intermittent and team sports such as an ice hockey match, a soccer game, or tennis match. The Basic Food Pyramid reflects balance in food choice, and the same applies to the recommendations for athletes. Both pyramids ensure sufficient energy and nutrient supply for the target population. All foods are allowed, but it is important that a variety of foods are chosen from each section, that produce is chosen seasonally, and all foods are prepared and processed with care. The regular intake of vitamin and/or mineral-fortified foods and beverages or the use of dietary supplements may exceed the upper tolerable intake level for micronutrients.

Adherence to the Food Pyramid for Athletes offers a solid foundation for long-term, successful performance capability. In contrast to the Basic Food Pyramid, where the recommendations do not have to be followed strictly on a daily basis, it is suggested that athletes meet the guidelines consistently to ensure optimal regeneration and performance capability. The additional requirement to cover exercise training includes a volume of 1 to 4 hours of moderate intensity exercise per day. For high-intensity exercise and/or greater volumes, the energy and nutrient requirements will be higher. An experienced sports dietitian may help with adjusting food selection and serving size to individual needs.

**Serving size selection:** From the serving size range given in the pyramid, small athletes of about 50kg body mass should choose the smallest serving size, whereas the largest serving size applies to athletes weighing about 85kg. Intermediate serving sizes apply to athletes of corresponding intermediate body mass (eg. medium serving size for 67.5kg).
The role of nutrition in dance performance
Mhairi Keil, BSc (Hons), MSc, PG Dip Sp Nut, RNut.

The prevalent phenotype for professional dance is one that must be lean and, in many cases low in body mass, yet robust to withstand the demands placed on the body. Such a physique must be sustained from a young age and maintained year in, year out, throughout a dancer’s career. In order to achieve the desired body composition, nutrient intake is often compromised and disordered eating patterns develop, increasing the risk of poor bone health, the (female) athlete triad, nutrient deficiencies and increased susceptibility to illness and infection. This talk will focus on the impact of low energy intakes on metabolic rate and fat storage, whilst also addressing the role of calcium in fat utilisation. The role of nutrient timings in optimising nutrient intake, whilst assisting the maintenance of a lean physique, and the appropriate means of assessing of body composition in this cohort will also be considered.

Foundations for success: creating and utilising a multidisciplinary team
Nicola Stephens MSc, MCSP, MMACP

This final session of the day will commence with a short presentation discussing the importance of multidisciplinary team (MDT) working in the management of the dancer with disordered eating. The decision as to who should make up the MDT will be discussed in terms of organisation type and size, from the large professional dance company to the single teacher dance school and practicalities of forming a MDT will be discussed. Differences between MDT working with the child dancer versus the adult dancer will be suggested.

The importance of confidentiality in the management of the dancer with disordered eating will be highlighted. Suggestions as to how the MDT can help maintain confidentiality, yet still facilitate trust and openness within an organisation with the aim of supporting the dancer concerned, their peers and the staff within the organisation will be offered. The concept of having a policy or guidelines as to how best to deal with the dancer with disordered eating will be proposed and suggestions will be made as to how best to communicate with the individual dancer concerned.

The importance of team education for the whole organisation will be highlighted so that all members are aware of how to recognise when a problem occurs, where to seek advice or help when required, why dancing or physical activity sometimes needs to be stopped for health and how to manage a graduated return to dance when appropriate. A panel discussion will conclude this session where representatives from a variety of organisations will share their experiences of MDT working in the care of the dancer with disordered eating.