Proneness to eating disorders in high level climbers: Psychological determinants

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Introduction
An upsurge in eating problems among elite athletes has been noticed recently in certain sports. Rock climbing, which necessitates moving in a vertical direction, is one such discipline. Indeed, this activity requires an extremely high strength/weight ratio, and although muscular development increases strength it also adds weight. In our study we explore the psychological determinants which influence eating disorders in rock climbers. Body image (physical self-concept) is moreover considered to be a key factor in the emergence of eating problems. By body image we mean the multidimensional evaluation which an individual makes of his or her body (Deusinger, 1998). Self-esteem is also fed by body image. It ought to be possible to observe this link, particularly in elite athletes for whom the body plays an essential role. Perfectionism also plays an important role in the onset and establishment of eating disorders. The central question of this research concerns the psychological factors linked to eating problems in the best Swiss rock climbers.

Methods
Elite Swiss rock climbers (17 women and 24 men) participated in the study on a voluntary basis. The population was then placed in two groups, the normal group (N = 29, age M = 16.98, SD = 3.49) and the at-risk group (N = 12, age M = 16.96, SD = 3.53). The groups were classified according to the following criteria: current BMI < 18.5 in individuals aged over 18 years and BMI < third percentile in younger subjects; clear decrease in BMI in the past two years; and anxiety about putting on weight. The at-risk group consisted of subjects who fulfil at least one of these criteria. They completed the Rosenberg self-esteem scale and the Frankfurt self-concept scales (FSNK) to measure body image and perfectionism.

Results
In the at-risk group more women than men were affected ($\chi^2 = 4.44, df = 1, p<.05$).

Perfectionism. The at-risk group presented a significantly more perfectionist attitude ($F = 14.62, p<0.001$). This was particularly evident on the personal standards scale ($F = 12.59, p<0.001$) and the scale measuring parental expectations and criticism ($F = 7.18, p = 0.01$). Both groups recorded fairly low scores on the scale measuring doubts about actions, but no significant difference was noted.

Body image. On average the athletes interviewed had a very positive body image. Physical efficiency was regarded most positively, and body acceptance by others least so. The only significant difference between the two groups appeared on the self-acceptance scale, where the at-risk group recorded lower average scores ($F = 6.98, p = 0.01$). It could also be established that the at-risk group tended to have a less positive perception of most of the dimensions measured.

Self-esteem. The at-risk group had significantly lower self-esteem ($F = 4.43, p < .05$). Nevertheless, it was found that the at-risk group’s scores for self-esteem still fell within the positive range.

Discussion
The present study confirms the view put forward in the literature (Turnbull, Ward, Treasure, Jick & Derby, 1996), namely that women are more affected by anorexia than men. The at-risk group presents a greater tendency towards perfectionism, which agrees with the literature showing that individuals suffering from eating disorders score highly on this scale (Sundgot-Borgen, 2002). The normal group demonstrates significantly higher self-esteem than the at-risk group. Similarly, the at-risk group’s perfectionist attitude is also reflected in the lower degree of acceptance shown by its members towards their own bodies. An interesting finding is that they view their own physical efficiency slightly less critically than their physical attractiveness.

Even if it is granted that practising a sport has a direct influence on body image by leading to a reassessment of self-image, and that an improvement in body image translates into stronger self-esteem which in turn has positive repercussions on self-concept as a whole, we must nevertheless emphasise that little is yet known about the role played by body image in elite sports.

In conclusion, the part played by psychological variables seems to be a good indicator for the identification of athletes susceptible to eating disorders, and thus merits further investigation.

References