

**Identifizierung von Risikofaktoren für die Entwicklung von Essstörungen – eine Längsschnittuntersuchung an der Hochrisikogruppe Leistungssportlerinnen**  
(project no. 03-09)

**Authors**

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***Introduction***

Eating disorder pathology is more common in elite athletes than in the general population. Female athletes who compete in sports emphasizing leanness, such as aesthetic sports, are at particularly high risk of developing eating disorder attitudes and behaviours. Empirical evidence regarding disordered eating among German female elite athletes is inconclusive. Overall, studies have mainly investigated whether athletes are at risk for eating disorder pathology rather than what determines their vulnerability. An accepted view is that the increased prevalence of eating disorder problems amongst athletes is attributed to their exposure to sport-specific in addition to general risk factors. Sports pressure regarding weight and body size is considered to be of significant importance in this context. Although well received, these opinions have not been rigorously proven empirically, primarily due to a lack of longitudinal studies and considerable methodological limitations of previous research. As eating disorder pathology can have serious health consequences and negative effects on performance, further aetiological knowledge is needed.

***Objectives***

This project aimed to expand the aetiological understanding of eating disorder pathology in female elite athletes by investigating both sport-specific and general putative risk factors. Sports pressure regarding weight, size and appearance, societal pressure to be thin, the internalisation of the thin ideal and body dissatisfaction were examined. The detailed objectives of this project were:

- (1) Development and validation of a German version of the ATHLETE, a questionnaire designed to capture sport-specific psychosocial risk factors for disordered eating behaviours in female athletes.

- (2) Assessment of prevalence rates of eating disorders among German female aesthetic sport and ball game sport athlete and age-matched non-athletes by using clinical interviews.
- (3) Assessment of the presence of putative risk factors for eating disorders among aesthetic sport athletes (high risk group) in comparison with ball game sport and age-matched non-athletes.
- (4) Assessment of the association of sport-specific and general putative risk factors and disordered eating among athletes in a cross-sectional design.
- (5) Assessment how putative risk factors and disordered eating develop over a period of 12 months' time.
- (6) Assessment of the risk factors status of sports pressure regarding weight, size and appearance, societal pressure to be thin, the internalisation of the thin ideal and body dissatisfaction in a longitudinal study.

### ***Methods***

A two wave panel study with a 12 months interval was conducted. 108 German female elite athletes from aesthetic sports (n = 46) and ball game sports (n = 62) participated in the study. In addition data from 108 aged matched non-athletes were assessed at the first time point. Study method included interviews and questionnaires and participants' height and weight were measured.

### ***Results***

At the initial assessment point all contacted athletes participated. At the second time point the response rate was 96%. In the following the results of each research question is presented:

- (1) The validation of the German ATHLETE version only partially verified the original 6 factors of the American measure. Three of the initial factors were confirmed and 3 new factors emerged. Of all six factors of the German ATHLETE only the new factor "Body and Sport", comprising items assessing pressure regarding weight, size and appearance provided satisfactory criterion validity. Therefore only this subscale was considered in the subsequent analyses.
- (2) As expected proportionately more athletes from aesthetic sports (17%) compared to those from ball game sports (3%) and non-athletes (2%) suffered from eating disorders. Their high-risk status of aesthetic sports athletes was in line with results of international large-scale studies.
- (3) Group comparisons regarding putative risk factors, which accounted for age and BMI differences revealed that aesthetic sports athletes obtained significantly higher scores

on all putative risk factors than ball game sport athletes, with the exception of body dissatisfaction. In comparison to aged-matched non-athlete controls, aesthetic sports athletes did not differ in terms of general putative risk factors.

- (4) At both time points, all putative risk factors were positively associated with eating pathology measures in the total sample as well as in the subgroups of aesthetic and ball game sports.
- (5) Sports pressure regarding weight, size and appearance, societal pressure to be thin, the internalisation of the thin ideal and body dissatisfaction as putative risk factors, together with eating disorder pathology, remained stable over a 12 month' period.
- (6) Although all investigated factors were positively associated with disordered eating at both time points only sports pressure and young age were significant predictors for subsequent disordered eating.

### ***Conclusions***

The findings of this project provide empirical support for the assumption that sports pressure regarding weight, body size and appearance is a risk factor for disordered eating among female elite athletes. The results therefore support the well-received assumption that the elevated risk for eating disturbance of female elite athletes is related to their exposure to sport-specific factors. The risk factor status of the investigated general putative risk factors societal pressure to be thin, thin ideal internalisation and body dissatisfaction could not be confirmed in the scope of this project although robust association between eating pathology and these factors were found. Whilst it should be acknowledged that the development of an eating disorder cannot be attributed solely to sport participation, the findings highlight the possible negative influence of professional sports on eating behaviour and attitudes of athletes.

The high prevalence of eating disorders pathology among aesthetic athletes and its stability over time make an active approach to treat and prevent these problems necessary. Efforts from the sports environment should be directed towards reducing sports pressure.

**The project was funded by the Swiss Anorexia Nervosa Foundation.**