Static and dynamic body image in anorexia and bulimia nervosa

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Background: Besides pathological eating behaviour, body image disturbances are a main characteristic of anorexia and bulimia nervosa. In the past, only static body image was examined; dynamic aspects as perception and evaluation of one's own motion patterns have not been studied yet in eating disorders.

Method: To assess static body image, patients with anorexia and bulimia nervosa (n=22) and a healthy control group (n=58) estimated their 'real', 'felt' and 'ideal' figure with a digital distortion technique. Assessment of the dynamic body image was realized by a computer programme based on the 'Biomotion Technique' (Troje, 2002). Patients were asked to adjust motion patterns shown on the screen along the body mass index axis, representing at best their 'real', 'felt' and 'ideal' motions.

Results: Concerning static body image, patients with eating disorders show a significantly stronger overestimation of their 'real' (p=.014) and 'felt' (p>.001) body dimensions than control subjects, while for 'ideal' body image, no differences were found. Additionally, for dynamic body image, there was a trend to significant group difference with respect to the estimation of 'real' (p=.077) and a highly significant difference for the estimation of 'felt' (p>.001) motions. Patients estimated their motion patterns in the direction of a higher body mass index. Again, the 'ideal' motion pattern was not different in both groups.

Discussion: It was demonstrated for the first time that in patients with anorexia and bulimia nervosa, the body image disturbances includes, in addition to the static aspect, a dynamic component, too.