

COMPARISON OF SENSITIVITY TO FACIAL EMOTIONS BETWEEN PATIENTS WITH ANOREXIA NERVOSA AND MATCHED CONTROLS USING A MORPHING TEST (MULTIMORPH): A PROSPECTIVE STUDY

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Introduction

In patients with Anorexia Nervosa (AN), troubles in facial emotion recognition (FER) have been reported using methodologies relying mainly on static tests. The morphing technique allows new perspectives in experimentation, by using dynamic expressions of emotions.

Objectives/ Aims

To compare prospectively FER using Multimorph, a morphing technique previously described (Robin, 2012) in anorexic patients and matched controls.

Methods

Population: 27 female patients with DSM-IV criteria for AN and 27 healthy individually matched controls were prospectively studied.

Multimorph protocol: Participants had to identify as rapidly as possible the 6 basic emotions. Emotions were displayed progressively by 2.5% incremental stages from neutral (0 %) to a full-blend (100 %) facial emotion (40 stages were displayed by trial). Each subject completed 36 trials (6 face x 6 emotions). Results are expressed as mean number of stages until the first correct response. Data were analyzed with a 2 (AN versus control) x 6 (anger, disgust, fear, happiness, sadness and surprise) factorial design. Comparisons were made with ANOVA for repeated measurements using Generalized Estimating Equations approach (Lipsitz, 1994). A p value < 0.05 was considered as significant.

Results

	AN Patients (n=27)	Controls (n=27)	Mean difference	Std Err	p value
Anger	28.8	30.3	-1.4245	1.0016	0.1609
Disgust	29.2	28.9	0.3228	0.9818	0.7437
Sadness	29.0	30.0	-0.9854	0.9274	0.2929
Fear	31.8	31.2	0.6057	0.8024	0.4538
Surprise	25.9	27.5	-1.6409	0.9578	0.0926
Happiness	18.7	21.4	-2.7248	0.8690	0.0028
ALL	27.0	28.0	-1.0266	0.3768	0.0088

Conclusion

Anorexic patients have an increased sensitivity to facial emotions, compared to controls.