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## Dimensions of locus of control and the role of anger expression & anger control in women diagnosed with eating disorders: a pilot study

Anna Brytek-Matera

### Summary

**Aim.** The present study was aimed at examining the evaluation of locus of control and anger in Polish and French populations with eating disorders.

**Material and method.** The clinical participants comprised 30 Polish patients and 14 French patients suffering from bulimia nervosa. The control group consisted of 107 randomly selected students. Measures included the Internal Powerful Others and Chance Scale and the Self-Expression and Control Scale.

**Results.** The results revealed significant differences between the experimental groups and control groups.

**Conclusion:** The results indicate that locus of control, anger expression and anger control appear to be useful variables for understanding eating disorder symptoms.

**bulimia nervosa / control / anger expression / anger control**

### INTRODUCTION

Locus of control (LOC) is regarded as one of the personality dimensions contributing to functioning of an individual both in different areas of activity and social life. It is related to the influence of the human being on the result of one's activities, which is based on perception. A sense of locus control can be internal (internal steering) or external (external steering). When an individual controls his activities, he or she interprets the causes of his behaviour through inner factors and he or she has an influence on reinforcement i.e. he or she has an internal sense of

focus. However, in the situation when the results of activities are interpreted by an individual as dependent on coincidental factors (other people, belief in luck, coincidence, destiny) but not on one's own predispositions, it is referred to as an external locus of control.

The research conducted by Adame and Johnson [1] proved that women with an external LOC are less satisfied with their body and appearance than people with an internal LOC. Fouts and Vaughan [2] suggest that having an external LOC may lead to concentrating only on information related to body image that comes from outside, comparing it with the socially acceptable picture, and as a result may lead to dissatisfaction with one's own appearance. According to Silverstein et al. [3] the bulimic individual's desire to be slim is not as much connected with a search for one's own femininity (this is what girls with bulimia do in their opinion) as with aspirations to prove one's self-esteem in social, professional and intellectual dimensions.

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Anger is regarded as a fundamental emotion. It is present in different cultures, always expressed and experienced in the same way. Angry emotions usually arise when one's activities are blocked or when someone or something makes it impossible for an individual to achieve a specific purpose. Frustration then arises which leads to emotional agitation. Physically, the shape of anger is expressed through aggressive and self-aggressive behaviour.

Wade et al. [4] claim that emotional instability and impulsions should be treated as characteristic elements of bulimia.

## AIM OF THE STUDY

The purpose of the conducted research was to assess a sense of LOC and expression of anger in Polish and French women with bulimia. In the research the following questions were put forth: (1) Are there any differences in the sense of the LOC and expression in people with bulimia of different nationalities? (2) Do women with bulimia have higher or lower self-control in comparison with healthy women? (3) Do the results in the examined groups with bulimia differ in terms of the range of anger expression from the results of controls in the same age?

## MATERIAL AND METHODS

### Material

The research group consisted of 30 Polish girls and 14 French girls with the diagnosis of bulimia nervosa according to the ICD-10 criteria and French criteria. [5] The average age of patients was 21.2 years (SD  $\pm$  2.3) in the Polish group and 22.9 (SD  $\pm$  8.6) in the French group. The disease duration was 31.2 months (SD  $\pm$  14.3) in the Polish patients, whereas it was 52.4 months (SD  $\pm$  53.5) in French patients. Mean weight and height coefficient (BMI) in the Polish girls was 21.0 (SD  $\pm$  1.2) while in the French 24.7 (SD  $\pm$  4.3).

A control group consisted of 60 Polish students and 57 French girls chosen at random who agreed to take part in the research. They underwent the same research procedure as the girls from the clinic group. In the control groups, the

mean age of Polish students was 20.5 (SD  $\pm$  1.8), while in the French group it was 20.8 years (SD  $\pm$  1.9). Average BMI value was 20.6 (SD  $\pm$  2.4) in the Polish group and 21.4 (SD  $\pm$  2.8) for the French one.

The group of French girls with bulimia had markedly higher BMI value ( $p < 0.001$ ) and also significantly longer disease duration in comparison with the Polish patients ( $p < 0.05$ ). The French were also much older than the control group ( $p < 0.01$ ).

## Methods

The Internal Powerful Others and Chance Scale by Levenson, in the French adaptation by Loas et al. [6], and Self-Expression and Control Scale by Van Van Elderen et al [7], in the Polish translation by Brytek [8], were used. For reliability check of the IPC and SECS questionnaires the author applied the factor analysis. Calculation of the consistency of each factor was made by means of Cronbach's alpha coefficient. Due to the factor analysis for the Internal Powerful Others and Chance Scale the following distinction was made: (1) belief in an internal LOC with scale inner consistency  $\alpha = 0.58$ ; (2) belief in an external LOC (belief in being controlled by important people) with scale inner consistency  $\alpha = 0.69$ ; and (3) belief in luck / coincidence with scale inner consistency  $\alpha = 0.68$ . Due to the factor analysis for Self-expression and Control Scale, four sub-scales were distinguished: (1) anger-out ( $\alpha = 0.81$ ), (2) anger-in ( $\alpha = 0.65$ ), (3) control anger-out ( $\alpha = 0.75$ ) and (4) control anger-in ( $\alpha = 0.73$ ).

## Statistical analysis

All the calculations were conducted by means of SPSS statistics software, version 12.0 (2004). The analysis of a sense of LOC and expression of anger was conducted in the examined groups with psychological bulimia as well as in the control groups by means of ANOVA analysis of variance. The comparisons were of intergroup and cross-group character.

**RESULTS**

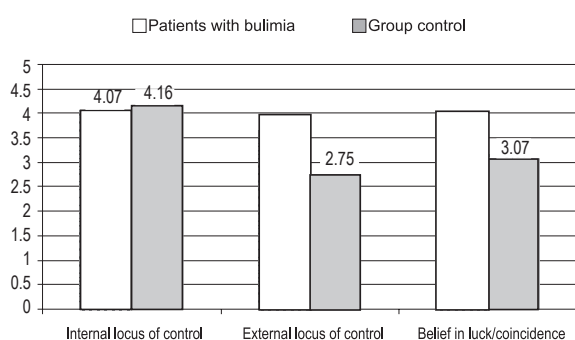
Owing to the ANOVA analysis of variance, statistically significant differences between the examined groups and mean values of a sense of LOC were shown (Tab. 1).

Polish bulimic individuals achieved higher values in the external LOC category in comparison with the French girls. Furthermore, the Polish girls have lower internal LOC in comparison with the healthy group of their age. However, as far as their external LOC and belief in luck / coincidence are concerned, they scored higher than healthy controls (Fig. 1).

**Table 1.** Mean values in SECS questionnaire achieved by the women with bulimia and the control groups

Anger	Research in Poland				Research in France				Comparison of groups			Research in Poland	Research in France	
	Bulimia nervosa n = 30		Control group n = 60		Bulimia nervosa n = 14		Control group N = 57		ANOVA			Bulimia versus control group	Bulimia versus control group	
	M	SD	M	SD	M	SD	M	SD	F	df	p	p	p	p
Anger-out	2.85	0.72	2.16	0.67	1.90	0.77	2.19	0.73	8.61	3	0.001	0.001	0.001	NS
Anger-in	2.33	0.81	2.04	0.58	2.69	0.85	2.08	0.68	4.14	3	0.01	NS	NS	0.01
Control anger-out	2.72	0.97	2.54	0.49	2.38	0.55	2.67	0.76	1.08	3	NS	NS	NS	NS
Control anger-in	3.64	0.60	2.84	0.64	2.90	0.75	2.81	0.76	0.70	3	NS	NS	NS	NS

**Fig. 1.** Comparison of mean values of dimensions in IPC questionnaire achieved by the group of Polish women with bulimia and the Polish control group



While interpreting the results achieved on the SECS scale it can be claimed that statistically significant differences are related to anger externalisation and internalisation (Tab. 2 on the next page).

In the group of Polish girls with psychological bulimia the level of anger externalisation was markedly higher ( $p < 0.001$ ) than in the French patients and the control group, whereas in the French group, patients with bulimia achieved

significantly higher results in the scale of anger internalisation ( $p < 0,01$ ) than the healthy students.

**DISCUSSION**

In the conducted research, the Polish group of girls with bulimia was characterised by significantly higher external LOC in comparison with the group of French patients and the control group. Literature presents numerous research studies which revealed that the lack of control over one's own life needs and desires and, as a result, a belief in being controlled by important people occurs more frequently in patients with bulimia than in control groups [4, 9, 10, 11].

The belief in being controlled by important people may result from the lack of trust in one's own abilities. Research by Dalglish [12] conducted on 15 patients with bulimia proved that eating-disordered people think that they have a lower sense of self-control than the healthy population. Lack of self-control may result from in-

**Table 2.** Mean values in IPC questionnaire achieved by the women with bulimia and the control groups

Locus of control	Research in Poland				Research in France				Comparison of groups				Research in Poland	Research in France
	Bulimia nervosa n = 30		Control group n = 60		Bulimia nervosa N = 14		Control group n = 57		ANOVA			Polish patients with bulimia versus French patients	Bulimia versus control group	Bulimia versus control group
	M	SD	M	SD	M	SD	M	SD	F	df	p	p	p	p
Internal locus of control	4.07	0.86	4.16	0.64	4.10	0.58	4.46	0.60	3.23	3	0.01	NS	0.01	NS
External locus of control	3.65	0.89	2.75	0.91	2.80	1.05	2.61	0.88	9.39	3	0.001	0.01	0.001	NS
Belief in luck / coincidence	3.18	0.81	3.07	0.74	2.78	0.69	2.74	0.84	2.83	3	0.05	NS	0.01	NS

ability to control impulses or lack of adaptation of undertaken activities to reality (emotional and motivational factors distort cognitive activities). At the onset of bulimia, girls frequently experience a complete lack of control over the course of event. What they feel is an inability to stop eating. As the onset passes, they feel a kind of relief, which is caused by the decrease of initial tension and guilt due to their frustrating loss of control. Bulimia nervosa is the opposite of anorexia when it comes to stiff control over one's own and others' behaviour. The disease develops in the atmosphere of a lack of control (loss of self-control). The feeling of helplessness and lack of control contributes to creating a very low self-esteem (vicious circle mechanism). According to some researchers [4], an external LOC and a sense of ineffectiveness are risk factors for bulimia occurrence.

Research by Claest [13] indicate that people with bulimia tend to have lower self-control and physical activity (aggressive or sexual behaviour) than the control group. Authors also postulate that the behaviour of the bulimic individuals is characterised by higher impulsiveness (as a feature and a state) in comparison with people with anorexia nervosa (restrictive type).

The group of Polish patients with bulimia externalised their anger with higher intensity than the French group or the control group. The results of the previous research [14, 15] showed a significantly higher level of anger externalisation in people with bulimia in comparison with the healthy population. While comparing the two

examined groups with bulimia, it should be noted that anger expression was different in comparison with the control group; the examined French girls externalised their anger more than the control group. The research conducted by Waller [16] proved that women suffering from eating disorders have a higher level of anger as a state and they suppress their anger to a greater degree. The internalization of negative emotions in the examined group of French patients may be explained by family factors, eg. disadvantageous family situations. In the research conducted by the author [8], the girls achieved low scores in the area of family life. Disorders related to bonds with the closest people (blurring borders inside the family, stiff patterns of functioning, weak autonomy of family members) cause that the girls do not express their feelings and emotional states because they are afraid that revealing them may cause a lack of understanding (including neglect) in part of their family. It may be claimed that anger expression in French patients was poorer due to the lack of such behaviour in the family.

Differences in a sense of control and anger expression in the examined patients with bulimia may result from a different style of upbringing in Poland compared to France. Factors related to a later separation from parents, a dependent style of upbringing in Polish families, as well as economic factors may influence the presence of higher emotional instability, (characterised by escalation of negative feelings-anger externalisation) a sense of submission, as well as a lack of



responsibility for one's behaviour and activities (a belief in being controlled by important people). French girls are brought up in conditions that facilitate separation from the family. Apart from social and cultural factors, an important role may be played by the duration of the disorder (in the Polish group 31.2 months while in the French group 52.4 months).

Due to the fact that the presented research is a pilot study, it requires further examination. The basic problem in the research was the small size of the French group and varied character of clinical groups. It may be supposed that the data collected might, in the future, contribute to the understanding of bulimic individuals' functioning at the social, individual and emotional levels in people from Poland as well as France, and also show the role of cultural factors in bulimia (if they differentiate chosen personality variables in patients of different nationalities).

## CONCLUSIONS

The conducted research shows a significantly higher outer LOC in the group of Polish girls with bulimia in comparison with the French patients as well as the control group.

The research results reveal different methods of expressing negative feelings by patients with bulimia in comparison with control groups: the Polish group externalises anger whereas the French group internalises it.

The examined Polish group with bulimia is characterised by significantly higher intensification of behaviour expressed through anger externalisation than in the French patients.

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