# Affect-Group Intervention for Alexithymia in Eating Disorders

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**ABSTRACT:** The purpose of this study is to describe a treatment intervention to alleviate eating disturbance and alexithymia symptoms in thirty patients diagnosed with anorexia nervosa and/or bulimia nervosa. The method consists of teaching and coaching about the emotional/affective status of individuals and incorporates both written and oral sessions. The treatment is presented within groups on one occasion (90 min) each week over eight-week periods. The results indicated that the intervention treatment reduced significantly the extent of alexithymia, as measured using the Toronto Alexithymia Scale, expressed by the patients. This implies that the teaching-coaching episodes affected their ability to cope with feelings thereby expressing improved insights concerning self-awareness and an understanding of themselves and others.

Key words: Alexithymia, affect regulation, eating disorder, affect-group, intervention

### INTRODUCTION

Patients presenting eating disorders often report alexithymia, an inability to identify and describe their emotions and affective status (Guillen et al., 2014). They show a paucity of words expressing feelings and demonstrate difficulties in identifying and distinguishing feeling of physical sensations. Alexithymia, a psychological construct with cognitive and emotional dimensions, is regarded to be an impairment of emotional regulation (Aleman, 2005; Wingbermuhle et al., 2012). The processing of emotions may be considered tri-phasic: (i) identification of the emotional significance of event, experience or situation, (ii) generation of an affective state, whether positive or negative, and (iii) emotional regulation (Phillips et al., 2003). Alexithymia core characteristics consist of severe dysfunctions in emotional awareness, social attachment, and interpersonal attachment (Sifneos, 1973; Sifneos et al., 1977). It has been implied that the disorder involves the 1<sup>st</sup> two phases (Grynberg et al., 2012), with altered physiological and neuroimaging responses to emotional stimuli (Bermond et al., 2010; Pouga et al., 2010). The cognitive style of these patients is characterized by details of the surrounding environment rather than their own feeling and fantasies. Cognitive failure and alexithymia are associated in the appearance and reinforcement of high-risk behaviors of young adults (Abbasi et al., 2014). Alexithymia and personal distress seem to predict the vulnerability features of Anorexia Nervosa (AN) with higher levels of personal distress in the latter linked to poor self-regulation and emotional awareness (Beadle et al., 2013).

There is a 13% incidence of alexithymia in the general population (Saminen et al., 1999), with a 77% incidence of the disorder in AN and a 61% incidence in Bulimia Nervosa (BN, Jimmerson et al., 1994; Bourke et al., 1992). It is likely that the disorder elevates anxiety, depression with stress presenting a predisposing factor to poorer health-related quality-of-life and social support (Nekouei et al., 2014). It was observed that patients presenting eating disorders, AN and BN, showed markedly more alexithymia and a comparable group of female students (Lundblad et al., 2003). Clinical evidence indicates that these patients have major problems with attachment anxiety and negative affect (Harney et al., 2014; Keating et al., 2013).

Neuroanatomically, alexithymia is associated with reduced gray matter volume in the dorsal anterior cingulate cortex with "difficulties identifying feelings" (DIF) suggesting a major involvement of left temporal regions linked to language and semantic import thereby mediating the cognitive processing of emotions and conscious identification of feelings (Grabe et al., 2014).

The purpose of the present study was to derive a psychological teaching method for the treatment of patients presenting eating disorders with alexithymia through more appropriate coping with feeling. The procedure involved the coaching of strategies for improving the identification and verbalization of feelings and negative affect, learn to distinguish feelings from bodily sensations and reduce the tendency to 'fasten' upon the perception of details and instead attend to considerations of their own affective status by caring for their feelings and fantasies. It was developed from notions emerging from Tomkins affect theory, i.e. the existence of 'hearwired', preprogrammed and genetically-transmitted mechanisms precipitating known patterns of biological events (Tomkins, 1962), and Pennebaker's notions on the long-term benefits of expressive writing for emotional health outcomes, including mood and affect (Baikie and Wilhelm, 2005; Pennebaker, 1997), as developed and outlined for Swedish patients at the Affect School, Umea University (Umea, Sweden). It was expected that improvements in the symptoms of alexithymia may alleviate the symptoms of AN and BN, binge eating and vomiting, through facilitation of the regulation of affective status.

#### METHOD AND MATERIALS

#### Participants

Thirty female patients (age range: 25 to 40 years) presenting eating disorders, AN and/or BN, with a history of unsuccessful interventions and referred from the Department of General Psychiatry, Sahlgrenska University Hospital (Gothenburg, Sweden), all showed severe alexithymia symptoms. They were all ethnic Scandinavians from higher socioeconomic groups and well-educated. They had all undergone further education, following high-school graduation, for at least 3 years, had affluent-level economic status and middleupper social-family backgrounds. They had all been afflicted with the

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symptoms for over five years on arrival at the Anorexia & Bulimia Clinic for Adults (Sahlgrenska University Hospital), and described themselves as "well-behaved girls". The Swedish expression, "wellbehaved girl", implies that these they hid much of their emotional upheaval and problems from their social environment. They were highly functional despite much suffering. They tended to handle the emotional upheaval by 'compensatory' behaviors, e.g. washing the floor or vacuuming, etc. Without exception, all expressed a marked external locus of control, as indicated by the TAS-20. The ethics protocol of the University Hospital Sahlgrenska was maintained. All the patients had experienced event-related emotional upheaval. Pseudo-names were provided. All the patients approached agreed to participate but four of them only complied on the 1st two occasions and were deleted from the study. None of the patients underwent any other form of treatment at that time. On arrival at the clinic, patients described their type of eating disorder and completed the EDI-2 questionnaire that estimates symptoms of eating disorder and were then given their diagnosis by the presiding medical staff.

## Intervention

The Anorexia & Bulimia Clinic for Adults has developed a psycho-pedagogic method that facilitates the ability of patients' coping with negative feelings. It was reasoned that an adequate coping strategy for negative feelings may interfere with or even block the tendencies towards self-starvation and/or 'binge-eating', vomiting, and over-exercising. An adequate coping strategy facilitates the capacity of patients for handling negative feelings since alexithymia implies an inability to handle negative feelings thereby requiring a 'protective' or 'blocking' ingredient.

Each therapy group consisted of 10 patients and two group-leaders (one general practitioner (GP) cum psychiatrist, and one clinical psychologist, both registered psychotherapists); thus, three groups of 10 patients are described in the present study. Each group assembled once each week for 90 min over an eight-week period. During the first assembly, the method, based on the Tomkins-Pennebaker notions, was described using examples taken from Pennebaker and his research group and from the Umea Affect School. Also, the distinctions between affect and feelings (Pennebaker, 1997) were indicated. Thus, the utility of expressing in writing traumatic events and experiences in their lives together with the feelings associated with them was established (Tomkins, 1963, 1991). Each group therapy period (90 min) was initiated with the group leaders' presentation of short lecture on any special aspect, as well as general aspects, of feelings/affect. Following the lecture on that day's aspect of feelings/affect (Persson & Armelius, 2003; Simonson-Sarneki, 2001), the participating patients were instructed to recall an event where had felt terrified (if indeed that was the aspect for that day, i.e. "fear"). They were instructed also to describe the occasion in written form and in particular the feelings that were evoked. They were encouraged to apply all their perceptual senses when describing the affect/feeling. Writing paper and pens were distributed with each patient instructed to perform her writing assignment in complete privacy with confidentially rigidly guaranteed. No other person had access to each patient's paper which was collected in a file and stored in a locked and secure filing cabinet. Each patient's paper was stored only so that patient may have access to what she had written at any time after the conclusion of that session or the eight-week program. As soon as each of the patients had begun their writing assignment, the group leaders left the room and they were all left undisturbed and in silence for 20 min. When the 20-min writing period had elapsed, the group leaders returned and posed the question: "How did it feel to write about fear (assuming that "fear" was the aspect covered on that occasion)?" No enquiries whatsoever were made regarding what they had written about. The patients were not required to relate or discuss their trauma. Nevertheless, they were asked whether or not they had been able to 're-awaken' the experience of their respective

trauma. Most often, the patients' comments occurred spontaneously with short discussions regarding feelings and the patients' reactions, with both physical and subjective experiences of feelings and how they had reacted in each case. On the rare occasions when none of the patients responded, one of the group leaders would take the initiative by asking one of the patients, for example, "What do you say, Sara, could you write about fear (or anger, or, etc.)?"

During the following seven treatment sessions, the group leaders started by asking the participating patients if they had any comments to make about particular reflections upon the feeling (e.g. fear, anger) that had been written about during the preceding session. An example of the type of response that may occur would be: "Yes, I was angry with my neighbor because...... and then I thought about what you said last week regarding the importance of distancing oneself; I did not succeed too well. I shall do better next time". Or, another response may be: "I have not thought about anger. I think it is a feeling that is too difficult for me to consider, I'm never angry, only sad". None of the participating patients were given any forehand information about the order in which the 'feelings' would be treated. Patients were encouraged to identify their emotions and channel them appropriately. This procedure was established in order to avoid any performance anxiety being generated by the patients, allowing them to experience a "take things as they come" attitude. Throughout, the group leaders explicit in their instructions and questions with marked structural stringency. It was emphasized that one ought to say what one intends to without any 'pressurizing', i.e. coercion, whatsoever. They were allowed to remain silent if they chose to do so. Sometimes, a direct question would be addressed to them if they had remained silent; in this instance, they were at liberty to answer: "I have nothing to say". Nevertheless, the group leaders avoided any tendency to pursue that question with the other patients in the group while, concurrently, long pauses were avoided; these procedures were adopted in order to avoid the induction of any further anxiety. Each of the groups differed in this regard: certain groups contributed lively discussions whereas other groups were more quiet and would terminate a discussion sooner when the participating patients had nothing to say. However, all sessions were maintained strictly at 90 min, and no longer.

The distinction between feeling and affect applied here was as follows: 'feeling' referred to the occurrence of subject experiences, such as fear or anger whereas 'affect' referred to a whole range of feelings, responses and their somatic manifestations, such as positive or negation affect. Tomkins' notion of affect is rooted in the biological inheritance with relatively similar expression among different individuals. During infancy, childhood and adolescence, episodic memories of events, experiences and situations shape the affective status of each individual. Nine basic affective states are described: (i and ii) "feeling good" - interest/enthusiasm, joy/excitement, (iii) "a neutral affect" - surprise/startle, (iv, v, vi, vii, viii and ix) "feeling bad" - anger/rage, fear/terror, distress/anguish, shame/humiliation, disgust/contempt, and 'dissmell'. These affective states were viewed as motors that drive individual development. Positive affect (PA) and feelings plays a central role for adequate psychological development (Davis & Suveg, 2014; Huang et al., 2014), whereas negative affect (NA) and emotions hinder developmental progress (Koizumi & Takagishi, 2014). Nevertheless, the suppression of negative affect may be problematic, and that awareness and regulation of all affect is important (Gratz & Roemer, 2004). The 'neutral' affect, surprise/wonder, is linked to an affective state of constant awareness (Maresh et al., 2014). Neutral affect seems colored by indifference; individuals realize that their feelings influence their thoughts, decisions, and actions and may try to place themselves into a more neutral affective state in order to avoid any undue affective biases, a possible advantage in cases referring to problems of affect (Park et al., 2005). According to Tomkins (1962), a central characteristic of affect is 'affective resonance', i.e. the notion that individual's

#### Table 1.

Effect of the Writing Assignment and Discussion Intervention upon TAS-20 Estimates of Alexithymia in Patients Presenting Eating Disorder. Values are Expressed as Means ± SD Pre- Vs Post-Intervention Correlation.

	Pre-intervention	Post-intervention	Correlation
Alexithymia group	67.7 ± 3.1	61.2 ± 2.9*	0.759**
*tue tailed t test (t df 1 20 = 5.22 p.c.0.01)			

\*two-tailed t-test, (t, df 1, 29,=5.32, p<0.01). \*\*two-tailed t-test, df=30, p<0.000002

tendency to resonate and experience the same affect in response to viewing a display of that affect by another person, also referred to as "contagion." Affective resonance was viewed as offering the original basis for the basic communication that was neglected, seemingly, in alexithymia. Affective resonance provides the progression of social interaction processes modulated through 'moving' and 'being-moved', 'affecting' and 'being-affected' (Muhlhoff, 2014). Interventions that reduce alexithymia reinstate neural activity in the anterior cingulate cortex thereby opening the possibility of improved social functioning (Chester et al., 2014). The specific aspects of the intervention appear to encompass a form of 'desensitization' and 'openness' for a dialogue.

#### Instrument

The Toronto Alexithymia Scale (TAS-20, Bagby et al., 1986; Taylor et al., 1985) offers a self-report instrument that estimates deficiencies in understanding, processing, or describing emotions. The version applied here presents a 20-item (statements) questionnaire on a five-point likert scale. An example of a statement would be: e.g. "When asked which emotion I'm feeling, I frequently don't know the answer", or "I am unsure of which words to use when describing my feelings". The cut-off point for severe alexithymia was 61 points and above. This instrument has been shown to possess a high level of reliability and validity (Bagby et al., 1994a, 1994b).

#### RESULTS

It was observed in the 30 patients with eating disorders studied here that the writing assignment and discussion intervention reduced significantly the extent of alexithymia, as measured using the Toronto Alexithymia Scale (Table 1). Correlational analysis indicated a highly significant correlation between pre- and post-interventional self-report of alexithymia (Table 1).

Nevertheless, the 'protective' or 'blocking' aspect of the intervention was not tested for.

#### DISCUSSION

The results of this study indicate: (i) that the writing-discussion intervention reduced successfully levels of alexithymia, as measured by TAS-20, in patients presenting eating disorders, and (ii) that the expression of alexithymia was associated markedly pre- and post-intervention. Thus, the hypothesis that the intervention would alleviate alexithymia was substantiated. There was an explicit link between the present study and that of Bourke et al. (1992) showed that in 48 female AN patients the prevalence of alexithymia was 77.1% whereas in in 30 age- and education-matched healthy controls it was 6.7%. Alexithymia correlated negatively with education in the AN patients but was unrelated to duration-of-illness, amount of weight loss, levels of depression and general psychoneurotic pathology. In a study examining the effects of a psychoeducational training program intervention for affect regulation for patients with eating disorders, Storch et al. (2011) obtained a statistically significant improvement in the skill of down-regulating negative affect and with a tendency towards less dietary restraint; alexithymia was improved only marginally.

Affect, a powerful source of motivation, endowers a sense of urgency to the less powerful drives, rendering 'good things better and bad things worse'. Under conditions of NA, alexithymic individuals suppress themselves consciously, to avoid thinking, feeling or acting (e.g. Aldinger et al., 2013; Zijlstra et al., 2012). In the short term, this tendency induces increased sweating, pulse and elevated blood pressure (Neumann et al., 2004). Alexithymia has been discussed from a perspective of cognitive and emotional domains (Bermond et al., 2010). Van der Velde et al. (2014) have shown that cognitive alexithymia, but not affective alexithymia, was associated with lower activation in emotional attention and recognition networks during emotion perception. Bemond et al. (2010) have defined alexithymia on the basis of emotion-affective and emotion-cognitive deficits thereby suggesting the classification of the disorder through affective and cognitive components. High alexithymia scores were linked to increased autonomic arousal at the onset of emotional stimulation (Bogdanov et al., 2013). Finally, Walker et al. (2011) have shown an inverse relationship between TAS-20 scores and emotion-related, event-related potential activity during 'expressive suppression' but not during a 'reappraisal' phase or a control "attend" condition. Taken together and particularly in the context of eating disorders, alexithymia presents a multi-dimension, multi-phasic condition. Nevertheless, the present application of a writing-discussion intervention, focusing on cognitive-affective domains, offers some promise for symptom improvements.

## LIMITATIONS

There are certain limitations of this study, despite the encouraging results: (i) the sample size is rather small, (ii) some measure of patients' compliance/performance during the intervention treatment would have provided valuable ancilliary data to the TAS-20 results, and (iii) there was no comparable control group, instead a repeated measures design that compared each patient to herself was employed. Future studies ought to focus upon other personal profiles, such as affective status, self-regulation, etc., in order to assess how these variables may vary with levels of alexithymia.

Several studies of affective conditions have shown that pre- vs post-interventional analyses may be usefully applied (Moore et al., 2013; Wagner et al., 2014). The marked correlation between preand post-intervention self-report of alexithymia implies that the expression of the disorder is relatively constant over both treatment and environmental conditions. The result suggests that even a moderate level of writing-discussion intervention may improve the alexithymia reported by patients with eating disorders. Whether or not this improvement is a step towards the alleviation of anorexia/ bulimia nervosa should be addressed eventually.

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