

Eating disordered patients: personality, alexithymia, and implications for primary care

DAVID L BEALES

ROS DOLTON

SUMMARY

Background. Eating disorders are becoming more apparent in primary care.¹ Descriptions of character traits related to people with eating disorders are rarely reported in the primary care literature and there is little awareness of the implications of alexithymia — a concept that defines the inability to identify or express emotion. We hypothesised that many individuals with active eating disorders have alexithymic traits and a tendency to somatise their distress.

Aim. To analyse the character traits and degree of alexithymia of a selected group of women with active eating disorders and in recovery, and to recommend responses by members of the primary care team that might meet the needs of such individuals.

Method. Letters were sent to 200 female members of the Eating Disorders Association who had agreed to participate in research. Seventy-nine women volunteered to complete four postal questionnaires. This gave a response rate of 38.5%. Responders were categorised into three groups — anorexic, bulimic, and recovered — using the criteria of the Eating Disorders Inventory (EDI-2). The results of the 16PF5 Personality Inventory (16PF5) and the Toronto Alexithymia Scale (TAS-20) were analysed using one-way analysis of variance (ANOVA) and correlated using Pearson's correlation. A biographical questionnaire was also completed.

Results. In all three subgroups, high scores were achieved on the 16PF5 on 'apprehension and social sensitivity', while there were significant differences in the scores for 'privacy': a scale that measures the ability to talk about feelings and confide in others. On the TAS-20, 65% of the anorexic and 83% of the bulimic group scored in the alexithymic range compared with 33% of the recovered group. There was a significant negative correlation between alexithymia and social skills such as 'social and emotional expressivity' on the 16PF5.

Conclusion. The results of this study emphasise the difference between those with active eating disorders who achieved high scores for privacy, introversion, and alexithymia, and those who have recovered. These character traits give potential helpers an important indication of the areas that can both block and facilitate recovery, and they act as a reminder that the presenting symptoms in eating disorders and other psychosomatic conditions are the outward presentation of internal conflict. It is suggested that effective screening and needs assessment will facilitate a more appropriate and prompt therapeutic response. This may be provided in the primary care setting where appropriate training has occurred.

Keywords: anorexia; bulimia; personality; alexithymia; primary care; therapy.

D L Beales, DCH, DRCOG, MRCP, MRCGP, general practitioner, Phoenix Surgery, Cirencester, Gloucestershire. R Dolton, MA, research assistant, University of Birmingham.

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Introduction

SOMATISATION — a tendency to experience and communicate psychological distress in the form of somatic symptoms and to seek medical help for them — accounts for 20% of all new presentations in primary care.²

Alexithymia is a syndrome that is defined by the inability to identify and express feelings, and the inability to distinguish between emotions and bodily sensations. It is common in patients who somatise. Individuals with alexithymia 'may not distinguish anxiety from depression or excitement from fatigue, or, indeed, anger from hunger'.³ The inability to articulate feelings prevents a healthy discharge of emotional stress. Instead, stress is contained within the body and ultimately manifests itself in physical ill-health.⁴ Inner distress is then expressed through physical pain and it may be the somatic symptoms that finally persuade the individual to visit the doctor.

Alexithymia is common in many syndromes where the physical symptoms are real and readily distinguished, but where the underlying causes are psychological and not organic. It is a common feature in patients with psychoactive abuse disorders,^{5,6} post-traumatic stress disorder,⁷ and classic psychosomatic disorders such as gastrointestinal complaints, migraine, dermatological symptoms, and irritable bowel syndrome.^{8,9} It is also common in eating disorders: various studies have used the Toronto Alexithymia Scale¹⁰ to measure the degree of alexithymia in patients with eating disorders. Results suggest that 40%¹¹ to 50%¹² of bulimic patients meet the threshold for alexithymia, and 56%¹² to 69%¹³ of restricting anorexic patients meet alexithymic criteria.

Recent studies suggest that the incidence of anorexia presenting to primary care has stabilised at a rate of 4.2 per 100 000, with a ratio of women to men of 40:1.¹ A threefold increase in the incidence of bulimia was recorded between 1988–1993, and the current rate has been recorded as 12.2 per 100 000, with a sex ratio of females to males of 47:1.¹ However, it is common for many cases of eating disorder to go undetected by the general practitioner, even when a patient has been consulting their doctor for secondary complications of the disorder and sometimes for many years.¹⁴

The cost implications of anorexia, bulimia, and other somatoform disorders are enormous. These illnesses run a protracted course: those with anorexia have a mean duration of illness of six years, and it is the third most chronic illness in teenage girls, resulting in a standardised mortality rate between 12 to 15 times that of the general population.¹⁵ Within Europe, hospital admission rates are rising with approximately 80% of patients with anorexia and 60% with bulimia referred to secondary care,¹ although it is debatable whether hospitalisation is an effective form of treatment.¹⁶ Of those who are admitted to hospital, less than 50% will recover fully.^{17,18} However, the prognosis does improve where there is early intervention and remedial action.^{17,19}

In this study, we assess the alexithymic characteristics that are present in patients with eating disorders and consider the possible implications for primary care. Our hypothesis was that patients with eating disorders demonstrate deficits in a wide range of social skills. We wanted to know whether improved understanding of the patients could be used to develop models of care that might lead to improved outcomes.

Method

Design

All the responders were volunteers. Letters were sent to 200 female members of the Eating Disorders Association (EDA) who had given their names as potential contacts for research. Ethical approval was given by the EDA. Seventy-nine women completed four questionnaires: a biographical questionnaire, the 16PF5,²⁰ the Eating Disorders Inventory (EDI-2),²¹ and The Toronto Alexithymic Scale (TAS-20).¹⁰

Responders

The sample group provides illustrative cases from the eating disorder population with a variety of treatment experiences: the responders came from 40 different health authorities in mainland Britain; they ranged from 17 to 46 years of age, the mean age being 27.9 years; the mean age of onset of the eating disorder was 16.3 years (SD = 4). A total of 46% had been ill for three to 10 years, 35% had been ill for over 10 years, and 19% had been ill for less than three years. The fact that 67% had been hospitalised suggests that the sample is biased towards severe and chronic illness, and this may correlate with a high incidence of alexithymia.

Three sub-groups were formed using the EDI-2. Thirty-three per cent ($n = 26$) were shown to be still suffering from restricting anorexia, 37% ($n = 29$) were suffering from bulimia, and 30% ($n = 24$) were recovered. Two of the recovered group had developed bulimia after suffering from anorexia; 22 had suffered from anorexia only.

Instruments

The *biographical questionnaire* asked about age of onset, details about weight loss, experience of treatment, family background, and precipitating factors.

The *EDI-2*²¹ is a widely used self-report measure of symptoms commonly associated with anorexia and bulimia. It provides standardised sub-scale scores on 11 dimensions that are clinically relevant to eating disorders (Table 1).

The *TAS-20*¹⁰ is a 20-item self-report questionnaire measuring alexithymia: a construct denoting an inability to identify or express emotions, an inability to distinguish between different emotional states and physical sensations, and a cognitive style that shows a preference for concrete and external details, rather than feelings, fantasies, and inner experience.²² The TAS-20 takes about 30 minutes to complete, is user-friendly and easy to interpret, enabling useful feedback to patients. It measures three scales: difficulty identifying feelings, difficulty describing feelings, and externally oriented (concrete) thinking.

The *16PF5*²⁰ assesses the individual personality against 16 primary personality factor scales that reflect behaviour (Table 2). The broad personality domains under which primary factors cluster are also measured as 'Global Factors' (Table 3). The norms used for comparative purposes are females, all ages: British General Population (sample size 661). The 16PF5 uses 'standardised ten' (Sten) score scales, with a norm of 5.5 and a standard deviation of 2. Scores that fall farther from the norm are considered more extreme. Theoretically, about 68% of the population obtain a score within plus or minus one standard deviation from the norm.

Procedure

The responses to the 16PF5 were analysed using one-way analy-

sis of variance (ANOVA) for unrelated designs, and, where the results were found to be significant, the Scheffé Multiple Range Test for use with one-way ANOVA was applied to determine the degree of difference between each group. The results of both the EDI-2 and the 16PF5 were correlated with the results of the TAS-20, using Pearson's correlation to clarify the relationship between the personality traits and to increase understanding of the alexithymia construct.

Results

Fifty-three (67%) responders had been hospitalised for eating disorders and 33 had been re-admitted at least once. Twenty-six found the treatment totally unsuccessful, while just six found it beneficial. Only one of these six has now recovered. Of the 57 (72%) who received one-to-one therapy, 15 found it unhelpful, while 30 found it very beneficial. The main reason given for the success of therapy was rapport with the therapist, characterised by features such as warmth, a non-judgemental attitude, and continuing contact.

The time lapse between onset of the illness and the provision of treatment outside primary care varied for the three groups: the average waiting time for the anorexic group was five years (SD = 6.3); for the bulimic group, 4.7 years (SD = 5); and for the recovered group, 3.4 years (SD = 4.2).

The TAS-20

Sixty-five per cent ($n = 17$) of the anorexic group, 83% ($n = 24$) of the bulimic group, and 33% ($n = 8$) of the recovered group scored above the cut-off point for alexithymia. There was a significant positive correlation between alexithymia and 'interpersonal distrust', 'interoceptive awareness', and 'social insecurity' (EDI-2).

The 16PF5

All three sub-groups had high mean scores on 'abstract reasoning', 'apprehension', and 'social sensitivity', but the recovered group was closer to the norm on other factors. There was a significant difference between the recovered and clinical groups on 'emotional stability' ($P < 0.001$), 'liveliness' ($P < 0.01$), 'privateness' ($P < 0.001$), 'self reliance' ($P < 0.01$), 'extroversion' ($P < 0.001$), 'anxiety' ($P < 0.025$), 'emotional and social adjustment' ($P < 0.001$), 'emotional and social expressivity' ($P < 0.001$), and 'empathy' ($P < 0.001$). There was a significant negative correlation in all three groups between alexithymia and 'social boldness', 'sensitivity', 'openness to change', 'extroversion', 'social adjustment', 'emotional expressivity', 'emotional sensitivity', 'social expressivity', 'social control', and 'empathy'. There was a significant positive correlation between alexithymia and 'vigilance' and 'privateness'.

Discussion

This study indicates that alexithymia is a very common feature of both bulimia and anorexia in these patients, and more common than previous research has suggested. However, the 79 responders represent only 40% of the sampled group and are not representative of the whole eating disordered population. The scores on the TAS-20 were high for the two clinical groups: 65% of the anorexic group and 83% of the bulimic group scored within the alexithymic range, while just 33% of the recovered group were alexithymic. This suggests that a lower alexithymic score may be a factor in recovery. This study does not demonstrate whether fewer recovered individuals were alexithymic before their illness or whether they changed as a result of treatment. More research

Table 1. Correlation of theTAS-20 and EDI-2.

EDI-2	Drive for thinness	Bulimia	Body dissatisfaction	Ineffectiveness	Perfectionism	Inter-personal distrust	Intero-ceptive awareness	Maturity fears	Ascet-icism	Impulse regulation	Social insecurity
Anorexic	-0.12	0.12	0.06	0.37	0	0.53	0.79	0.01	0.14	0.38	0.46
Bulimic	-0.32	0.14	0	0.33	0.1	0.44	0.44	0.14	0.1	0.18	0.32
Recovered	0.06	-0.01	0.02	0.13	0.24	0.73	0.7	0.34	0.36	0.19	0.47

Figures in bold are correlation significant at P<0.05.

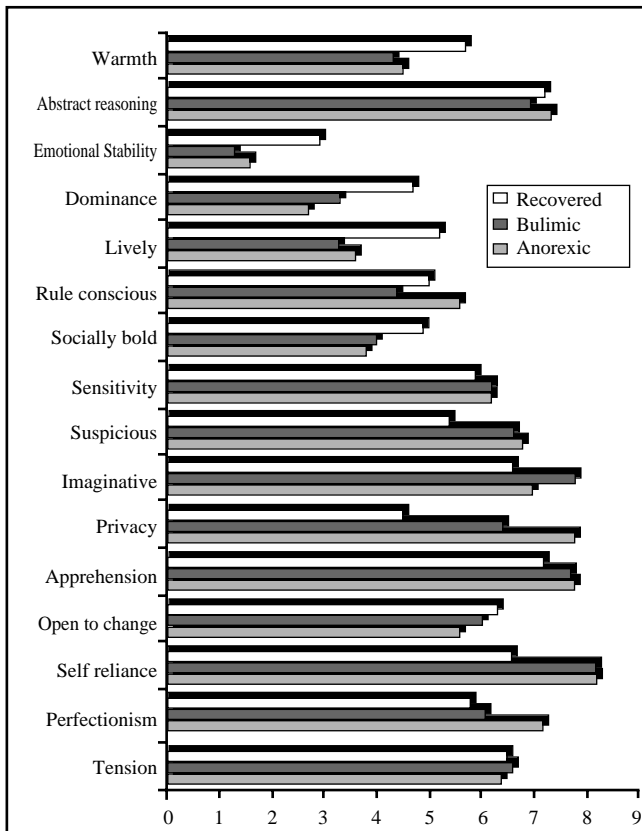


Figure 1. 16PF5: primary factors mean scores.

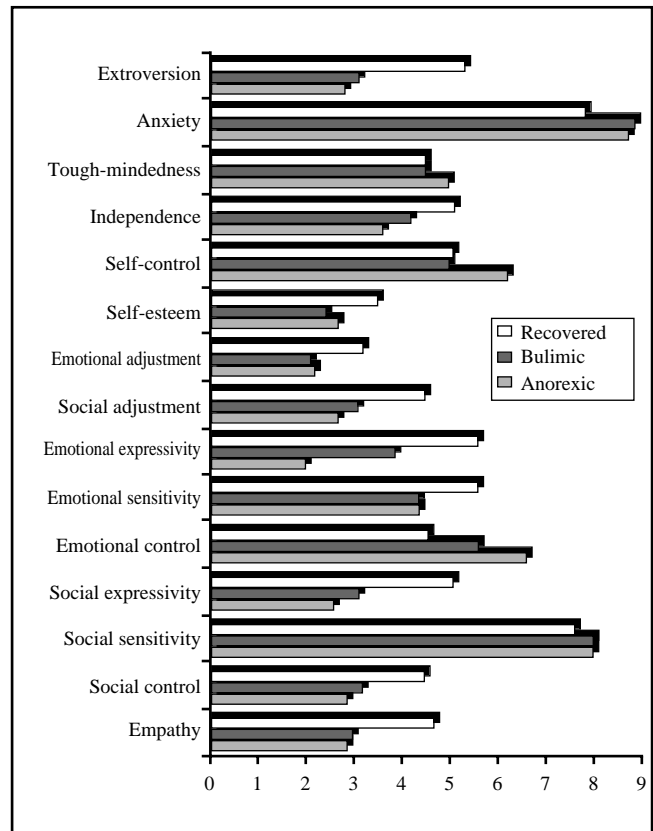


Figure 2. 16PF5: global factors mean scores.

is needed in this area.

It is important to note that, in many of these patients, the problem of alexithymia still exists after years with the disorder and of treatment, suggesting that the therapy has often been ineffective. This supports the hypothesis that the early administration of a measure, such as the TAS-20, would enhance understanding of the individual patient and facilitate an appropriate therapeutic response. There is, as yet, little evidence-based research on alexithymia and none that examines eating disorders and alexithymia.²² However, evidence-based strategies using self-completion questionnaires and brief interventions have resulted in favourable outcomes for eating disorders within primary care settings.²³⁻²⁵ This study is not advocating a particular therapeutic approach, but concentrating on the nature of the patient.

The high mean scores on ‘anxiety and social sensitivity’ suggest that those who suffer from eating disorders may be astute observers of others and inordinately sensitive to external cues. However, the significant negative correlation between alexithymia and the social skills traits on the 16PF5 reflects individuals who have severe problems with communicating feelings and needs. Their verbal and non-verbal skills are equally restricted.

The significant positive correlation between alexithymia, ‘privateness’ (16PF5), ‘interpersonal distrust’, ‘interoceptive awareness’, and ‘social insecurity’ (EDI-2) also portrays individuals who are likely to be shy and withdrawn, personally guarded and self-conscious. They will tend to be apprehensive and insecure in social situations, including therapeutic relationships. This has four specific implications for treatment by the primary care team:

- non-presentation,
- lack of trust,
- poor communication of needs, and
- inability to articulate the problem.

Implications for primary care

These personality characteristics suggest that such patients may benefit from an early intervention in a familiar setting and by a doctor whom they already know. Primary care teams that establish a protocol for responding to patients with eating disorders and other psychosomatic problems where alexithymia might be present, may thus be able to provide effective interventions.

Table 2. The results of the 16PF5: primary factors.

16PF5 primary factors	Anorexic mean (n = 26)	SD	Bulimic mean (n = 26)	SD	Recovered mean (n = 24)	SD	16PF5 norm	ANOVA	Scheffe AN/Rec	Scheffe BN/Rec	TAS AN	correlation BN	Rec.
Warmth	4.5	1.6	4.3	1.9	5.7	1.5	5.5	P<0.05	-	P<0.05	-0.6	-0.3	-0.3
Abstract reasoning	7.3	1.8	6.9	2.0	7.2	1.9	5.5	-	-	-	-0.4	0.1	0.0
Emotional stability	1.6	0.8	1.3	0.7	2.9	1.5	5.5	P<0.001	P<0.01	P<0.001	-0.2	-0.2	-0.3
Dominance	2.7	1.6	3.3	2.2	4.7	2.5	5.5	P<0.01	P<0.01	-	0	-0.2	-0.2
Liveliness	3.6	1.5	3.3	2.0	5.2	2.0	5.5	P<0.01	P<0.025	P<0.025	-0.2	-0.1	-0.3
Rule consciousness	5.6	1.9	4.4	2.3	5.0	1.6	5.5	-	-	-	0.1	-0.3	0.1
Social boldness	3.8	1.9	4.0	1.3	4.9	1.5	5.5	P<0.025	P<0.025	-	-0.5	-0.4	-0.4
Sensitivity	6.2	1.9	6.2	1.7	5.9	2.0	5.5	-	-	-	-0.5	-0.4	-0.4
Vigilance	6.8	1.8	6.6	1.8	5.4	2.7	5.5	-	-	-	0.4	0.2	0.3
Abstractedness	7.0	1.7	7.8	1.5	6.6	1.6	5.5	-	-	-	0.1	-0.2	-0.1
Privateness	7.8	1.5	6.4	2.2	4.5	2.5	5.5	P<0.001	P<0.001	P<0.025	0.5	0.1	0.9
Apprehension	7.8	0.6	7.7	0.7	7.2	0.7	5.5	-	-	-	0.5	-0.3	0.2
Openness to change	5.6	0.7	6.0	2.0	6.3	2.1	5.5	-	-	-	-0.4	-0.4	-0.5
Self-reliance	8.2	1.9	8.2	1.4	6.6	1.8	5.5	P<0.01	P<0.01	P<0.025	0.3	0.1	0.3
Perfectionism	7.2	1.4	6.1	1.6	5.8	1.9	5.5	P<0.01	P<0.025	-	0.1	0.0	-0.2
Tension	6.4	1.9	6.6	1.9	6.5	1.6	5.5	-	-	-	0.1	-0.1	-0.2

Figures in bold are correlation significant at P<0.05. AN = anorexia nervosa; BN = bulimia nervosa; rec. = recovered.

Table 3. Results of the 16PF5: global factors.

Global factors	Anorexic mean (n = 26)	SD	Bulimic mean (n = 26)	SD	Recovered mean (n = 24)	SD	16PF5 norm	ANOVA	Scheffe AN/Rec	Scheffe BN/Rec	TAS AN	correlation BN	Rec.
Extroversion	2.8	1.4	3.1	1.9	5.3	1.8	5.5	P<0.001	P<0.001	P<0.01	-0.59	-0.24	-0.64
Anxiety	8.7	1.3	8.8	0.9	7.8	1.6	5.5	P<0.025	P<0.05	P<0.05	0.31	0.07	0.25
Tough-mindedness	5.0	1.6	4.5	2.0	4.5	1.8	5.5	-	-	-	0.50	0.42	0.56
Independence	3.6	1.5	4.2	1.6	5.1	1.9	5.5	P<0.025	P<0.025	-	-0.19	-0.36	-0.39
Self-control	6.2	1.6	5.0	1.5	5.1	1.7	5.5	P<0.05	-	-	0.10	0.06	0.23
Self-esteem	2.7	1.1	2.4	1.1	3.5	1.2	5.5	P<0.01	-	P<0.01	-0.57	-0.19	-0.14
Emotional adjustment	2.2	0.7	2.1	0.5	3.2	1.0	5.5	P<0.001	P<0.001	P<0.001	-0.43	-0.07	-0.31
Social adjustment	2.7	1.2	3.1	1.6	4.5	1.7	5.5	P<0.001	P<0.001	P<0.05	-0.56	-0.35	-0.50
Emotional expressivity	2.0	1.5	3.9	2.6	5.6	2.7	5.5	P<0.001	P<0.01	P<0.05	-0.4	-0.23	-0.69
Emotional sensitivity	4.4	1.7	4.4	2.1	5.6	1.6	5.5	-	-	-	-0.62	-0.37	-0.48
Emotional control	6.6	1.2	5.6	2.0	4.6	2.2	5.5	P<0.001	P<0.001	-	0.00	0.12	0.75
Social expressivity	2.6	1.3	3.1	1.9	5.1	1.9	5.5	P<0.001	P<0.001	P<0.01	-0.52	-0.22	-0.57
Social sensitivity	8.0	0.9	8.0	0.9	7.6	1.2	5.5	-	-	-	0.06	-0.10	0.25
Social control	2.9	1.3	3.2	1.6	4.5	1.8	5.5	P<0.01	P<0.01	-	-0.61	-0.38	-0.51
Empathy	2.9	1.3	3.0	1.7	4.7	1.7	5.5	P<0.001	P<0.01	P<0.01	-0.60	-0.32	-0.50

Figures in bold are correlation significant at P<0.05. On all 16PF5 factors, the descriptive label reflects the right (high score) end of a bi-polar scale.

Screening and assessment

The provision of effective treatment is dependent upon accurate diagnosis and assessment,²⁶ but this can be impeded by the resistance, ambivalence, impaired trust, and denial that is typical of patients with eating disorders and alexithymia.^{22,27} In this sample, the variations in time lapse before treatment outside primary care are not statistically significant, but the results do suggest a delay before therapeutic help is provided and would seem to have implications for the task of the primary care team. We therefore recommend that a diagnostic pathway is used by administering a common checklist²⁸ or a computer-aided diagnostic instrument such as PRIME-MD.²⁹ Detection can be further enhanced by the routine inclusion in *all* consultations, for whatever cause, of questions that have a high sensitivity and specificity regarding weight history, body image, dieting history, bingeing and purging activity, and exercise.³⁰ Identification and grading of the severity of the alexithymia through a screening process can be aided by the routine use of assessment tools such as the TAS-20.

While we recognise the differences in expertise and training between practices, we feel it is important that each primary care team adopts certain strategies for responding to patients with alexithymic traits. Because these patients experience confusion in recognising and accurately responding to emotional states and will not be able to interpret bodily sensations or to distinguish these from emotions, the first task of the general practitioner may be to give reassurance that there is no organic disease. This then allows for a new focus on the intrinsic problem. However, fear about the consequences of emaciation may cause a preoccupation with the physical status of the patient, and the general practitioner needs to recognise that focusing on the outward symptoms of distress fails to deal with the underlying emotional disconnection between the symptom and the meaning of that symptom. Furthermore, an earlier response from the primary care team could prevent progression to the severe, often unremitting, course seen in hospital practice and experienced by many patients in this sample.

It is helpful if more than one member of the team is involved: the practice nurse or dietician may provide nutritional counselling and a non-alarmist monitoring of weight, body mass index, and medical symptoms to prevent deterioration of the disorder, while another member of the team provides support for a guided self-help regime and counselling. What is important is that the person who adopts the therapeutic role should be able to provide continuity, have good inter-personal skills, and be empathetic, sensitive to hidden messages, and able to interpret often obscure and indirect behavioural clues. Where the appropriate expertise is lacking, training should be given; the effectiveness of the programme should be carefully monitored.

Therapy

From the results of this study and other research,^{22,27} alexithymia seems to be a key construct determining the therapeutic response and outcome. We therefore suggest that the general philosophy of the therapeutic contract should be open and collaborative, giving maximum autonomy and responsibility for eating and other behaviours to the patient.³¹ The aims of therapy^{22,27} would be to:

- explain to the patient that they tend to experience their emotions as physical reactions rather than as feelings,
- help them to understand their lack of empathy,
- help them overcome inhibitions in self-care,
- encourage them to identify, differentiate, and manage their emotions,
- enable them to acquire the vocabulary to express feelings accurately and appropriately,

- empower them to act effectively in social situations, and to
- build self-esteem.

Conclusion

It is shown, in this sample, that alexithymia is a common feature of eating disorders and that it is allied to considerable social skills deficits. The results also suggest that the symptoms in eating disorders, and other psychosomatic conditions, are the outward presentation of internal conflict and the physical expression of unidentified emotion. We postulate that a primary care team, which is trained to recognise alexithymia and uses evidence-based strategies, is more likely to manage these distressing and potentially life-threatening disorders more effectively. Such strategies may be an interim measure while the patient awaits hospitalisation, but may prove sufficient to avert the need for secondary care. This study provides recommendations based on illustrative cases and further research is needed to evaluate the benefits of the approach.

References

1. Turnbull S, Ward A, Treasure J, *et al.* The demand for eating disorder care: an epidemiological study using the general practice database. *Br J Psychiatry* 1996; **169**: 705-712.
2. Kellner R. Somatisation: theories and research. *Journal of Nervous and Mental Disease* 1990; **178**: 150-160.
3. McDougall J. *Theatres of the body: a psychoanalytical approach to psychosomatic illness*. London: Free Association Books, 1989.
4. Martin JB, Pihl RO. The stress-alexithymia hypothesis: theoretical and empirical considerations. *Psychother Psychosom* 1985; **43**: 169-176.
5. Haviland MG, Shaw DG, MacMurray JP, Cummings MA. Validation of the Toronto Alexithymia Scale with substance abusers. *Psychother Psychosom* 1988; **50**: 81-87.
6. Taylor GJ, Parker JDA, Bagby RM. A preliminary investigation of alexithymia in men with psychoactive substance dependence. *Am J Psychiatry* 1990; **147**: 1228-1230.
7. Krystal JH, Giller EL, Cicchetti DV. Assessment of alexithymia in post-traumatic stress disorder and somatic illness: Introduction of a reliable measure. *Psychosom Med* 1986; **48**: 84-94.
8. Acklin MW, Alexander G. Alexithymia and somatisation. *J Nerv Ment Dis* 1988; **176**(6): 343-350.
9. Taylor GJ, Doody K, Newman A. Alexithymic characteristics in patients with inflammatory bowel disease. *Can J Psychiatry* 1981; **26**: 470-474.
10. Taylor GJ, Bagby RM, Parker JDA. *Disorders of affect regulation*. Cambridge: CUP, 1997.
11. Jimerson DC, Wolfe B, Franko D, *et al.* Alexithymia ratings in bulimia nervosa: clinical correlates. *Psychosom Med* 1994; **56**: 90-93.
12. Schmidt U, Jiwany A, Treasure J. A controlled study of alexithymia in eating disorders. *Compr Psychiatry* 1993; **34**(1): 54-58.
13. Bourke MP, Taylor GJ, Parker JDA, Bagby RM. Alexithymia in women with anorexia. *Br J Psychiatry* 1992; **161**: 240-243.
14. Whitehouse AM, Cooper PJ, Vise CV, *et al.* Prevalence of eating disorders in three Cambridge general practices: hidden and conspicuous morbidity. *Br J Gen Pract* 1992; **42**: 57-60.
15. Treasure J, Kordy H. Evidence based care of eating disorders: beware of the glitter of the randomised controlled trial. *European Eating Disorders Review* 1998; **6**(2): 85-95.
16. Morgan H, Purgold J, Welbourne J. Management and outcome in anorexia nervosa. *Br J Psychiatry* 1983; **143**: 282-287.
17. Rosenvinge J, Moulund SO. Outcome and prognosis of anorexia nervosa: A retrospective study of forty-one subjects. *Br J Psychiatry* 1990; **163**: 195-200.
18. Deter H-C, Herzog W. Anorexia nervosa in a long-term perspective: results of the Heidelberg-Mannheim study. *Psychosom Med* 1994; **56**: 20-27.
19. Gowers S, Norton K, Halek C, Crisp A. Outcome of outpatient psychotherapy in a random allocation treatment study of anorexia nervosa. *Int J Eat Disord* 1994; **15**(2): 165-177.
20. Cattell RB, Cattell AKS, Cattell HEP. *16PF5 Questionnaire*. Windsor: English Edition NFER Nelson Publishing Co. Ltd., 1993.
21. Garner DM. *Eating Disorder Inventory - 2*. Odessa: Psychological Assessment Resources Inc., 1991.

22. Taylor GJ, Bagby RM, Parker JDA. *Disorders of affect regulation: alexithymia in medical and psychiatric illness*. Cambridge: Cambridge University Press, 1997.
23. Cooper PJ, Coker S, Fleming C. An evaluation of the efficacy of supervised cognitive behavioural self-help for bulimia nervosa. *European Eating Disorders Review* 1997; **5(3)**: 145-148.
24. Waller D, Fairburn CG, McPherson A, *et al*. Treating bulimia nervosa in primary care: a pilot study. *Int J Eat Disord* 1996; **19**: 99-103.
25. Fairburn CG. Towards evidence-based treatments and cost-effective treatment for bulimia nervosa. *European Eating Disorders Review* 1997; **5(3)**: 145-148.
26. Yager J. Psychosocial treatments for eating disorders. *Psychiatry* 1994; **57**: 153-164.
27. Krystal H. Alexithymia and the effectiveness of psychoanalytic treatment. *Int J Psychoanal Psychother* 1982/3; **9**: 353-88.
28. Maradiegue A, Cecelic EK, Bozzelli MJ, Frances G. Do primary care providers screen for eating disorders? *Gastroenterology Nursing* 1994; **19(2)**: 65-69.
29. Kobak KA, Taylor L, Dottl S, *et al*. A computer-administered telephone interview to identify mental disorders. *JAMA* 1997; **278(11)**: 905-910.
30. Muscari ME. The role of the nurse practitioner in the diagnosis and management of bulimia nervosa, Part 1: diagnosis. *Journal of the American Academy of Nurse Practitioners* 1993; **5(4)**: 151-157.
31. Taylor GJ, Bagby RM, Ryan DP, Parker JDA. Validation of the alexithymia construct: a measurement-based approach. *Can J Psychiatry* 1990; **35**: 290-296.

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Address for Correspondence

Dr D L Beales, Phoenix Surgery, 9 Chesterton Lane, Cirencester, Gloucestershire GL7 1XG. E-mail: springbank@tunley95.freeserve.co.uk.