

EMOTIONAL ABUSE AND DELAY IN GROWTH

David H Skuse

Better is a dinner of herbs where love is than
a stalled ox and hatred therewith
Proverbs xv, 17

Many exceptionally short children with no detectable organic disorder to account for their condition are that way because they have been—and are usually continuing to be—abused within their families. There may be no other physical evidence of the abuse. The underlying aetiology is probably always dysfunctional secretion of growth hormone, but conventional endocrinological studies may give misleading results. The key to the diagnosis is a good history. Failure to recognise this condition may imperil not only the children's future physical development but also their intelligence, their social adjustment, and their emotional wellbeing. Appreciable numbers of children newly referred to specialist growth clinics have this seriously underdiagnosed disorder, which is often known as psychosocial dwarfism.

Defining features

The syndrome has no pathognomonic signs or symptoms. It is the combination of current and historical features that is characteristic. Some aspects (such as behaviour around food) are fairly easy to elicit at interview. Others, such as sexual abuse, require skilled assessment by appropriately trained staff. Not all features are present in all children. The diagnosis is confirmed by showing deficient secretion of growth hormone and an abnormally low rate of linear growth, both of which rapidly resolve when the child is removed from the abusive environment.

Anthropometry

A history of failure to thrive in infancy is common. Height is usually far below the third centile, although the child may be growing at a low normal rate parallel to the centile line. Occasionally the condition presents with a variable and inconsistent growth trajectory. Weight for height is appropriate and head circumference and skinfold thickness are both below average. Body proportions are immature with comparatively short legs (figure). Siblings and parents are often of average stature.

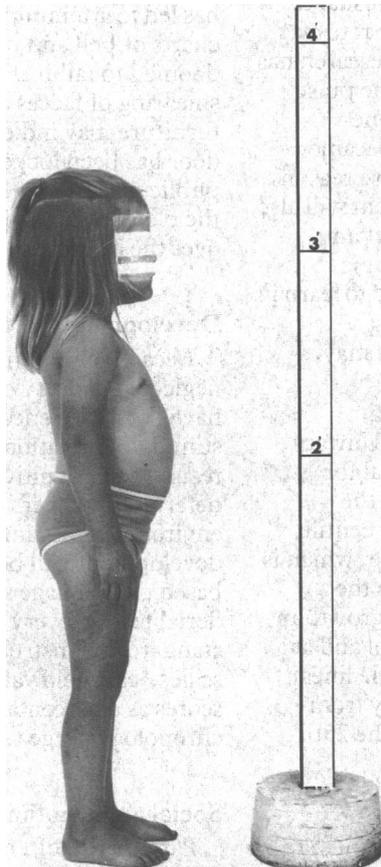
Feeding behaviour

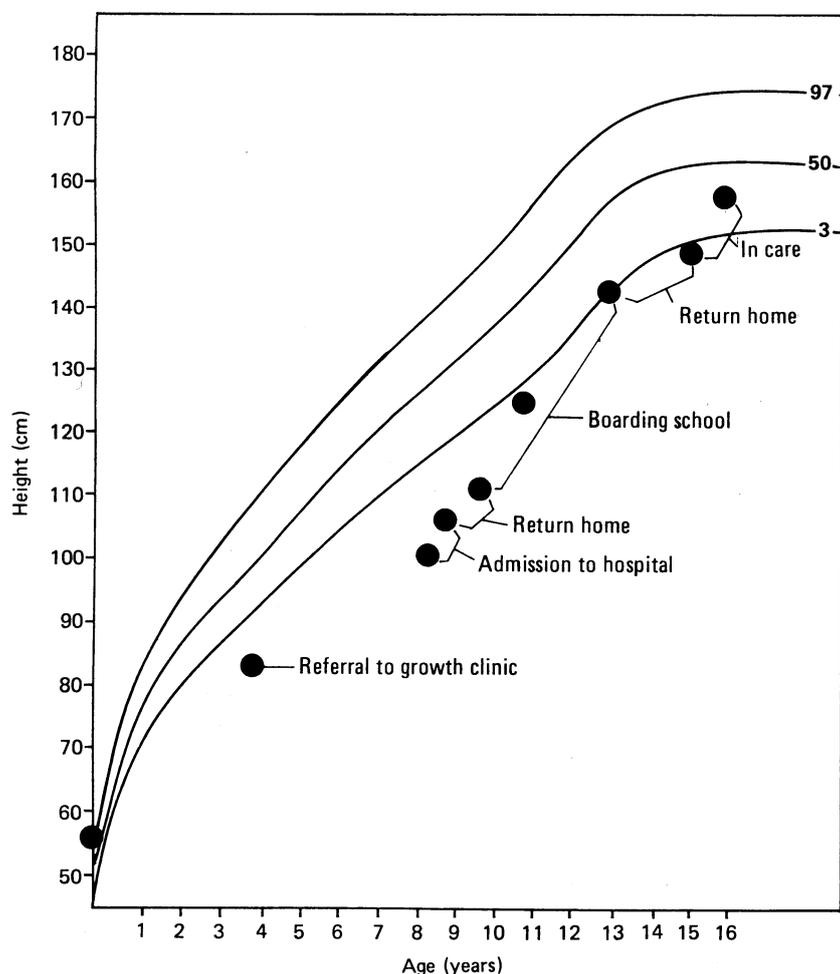
A long history of disordered behaviour around food is characteristic. Ask whether food is "stolen" at home and preventive measures have been taken—for example, locks on bedroom, kitchen, and cupboard doors. Have there been nocturnal forays in search of food to hoard in the child's bedroom? Pica and the consumption of discarded food found in street or wastebins can lead to gastrointestinal disturbances (for which specialist opinion may be sought). Are there special arrangements to feed the child at home—for example, separately from other family members? Schoolteachers can often provide valuable information. Ask parents what would happen if they let the child eat as much as he or she wanted in the expectation that you would be told that the child would gorge until he or she vomited.

Change of environment

Absolutely characteristic of the syndrome is the observation that affected children show a dramatic increase in linear growth once they have

Girl aged 8 years 2½
months measuring 3' 4"
(102 cm), a height age
of 4 years





Growth curve of girl in figure on previous page related to events in her life. Her mother's height was 158 cm (25th centile) and her father's 178 cm (50th centile)

been removed from home. It is not unusual to find a sixfold to tenfold increase in the rate of growth within a few months. Recent research has shown that on admission to hospital the pulse amplitude of nocturnal growth hormone secretion, which had been deficient, became normal within three weeks. The precise reasons for this are unclear. Mental development will also accelerate within months provided that an appropriate child-caregiver attachment is established and the child is encouraged to learn in a comparatively structured stimulating environment. Odd behaviour patterns may, however, persist.

Should the child be returned home a diminution in growth rate will ensue. Unwary doctors may conclude that the potential for growth has been fulfilled, especially if the subsequent trajectory is parallel to the centile lines. Consider the growth curve above, which is the growth record of the girl shown on the previous page. Rapid increases in the growth in height during her admission to hospital and at boarding school were followed by stable linear growth. When she was 15 she ran away from home, and her height nearly reached the 25th centile.

Management

When a diagnosis of emotional abuse leading to a delay in growth is suspected a coordinated

response with the local social services department is necessary. A case conference will be held and the services of other experts such as a child psychiatrist and paediatric endocrinologist may be deemed necessary. Legal proceedings are likely to be forthcoming to protect the child because it is unfortunately rare for the intrafamilial interactions to be amenable to treatment. If in court abuse is strenuously denied by the parents the case may be notoriously difficult to prove. Evidence of accelerated linear growth in another environment, either in the past or since the intervention of the social services department, is then extremely valuable. Substantial growth away from home indicates that a child should not be returned, for obvious reasons.

Prevention

Although primary prevention may be impossible, increased vigilance by school doctors, general practitioners, and paediatricians should lead to an increased rate of diagnosis. So called deprivation dwarfism is no respecter of social or cultural boundaries. Although the consequences of acting on suspicions may be traumatic and far reaching, the consequence of turning a blind eye to the condition is often the stunting not only of growth but also of personality and intellect.

Urination and defecation

Unhappy, rejected and abused children may use urination and defecation as aggressive acts. All too often inappropriate professional advice has led to attempts at managing behaviour by star charts or bell and pad devices; such efforts are doomed to failure. Deliberate urination and the smearing of faeces at night over beds, toys, and furniture may indicate that the child's bedroom door has been locked. Defecation may occur in public places—for example in school corridors or the playground; soiled pants may be hidden all over the house.

Developmental attainments

Because children with this condition are at best neglected and at worst rejected and unloved they have not experienced a close reciprocal and stimulating relationship with their parents. As a result their cognitive attainments show a deterioration over time as the impact of their environment assumes greater significance. Motor development will be less affected than skills based on language such as practical reasoning. Serial testing every six months or so, with a standardised instrument such as the Griffiths scales,¹ can yield valuable information. (Calculate scores as a percentage of mental age divided by chronological age to view trends).

Social and emotional adjustment

Parents will often tell you that the child had a difficult temperament from the earliest days, would not settle into routines, was irritable, and

Key features

- Age range toddlers to adolescents
- Proportionate stunting
- Feeding behaviour grossly disturbed
- Unusual patterns of urination and defecation
- Mental development delayed
- Poor social adjustment
- Unhappy, irritable, defiant
- Antisocial behaviour
- Parents' attitude critical or belittling, or both
- Associated abuse, especially sexual abuse
- Accelerated growth away from family
- Rapidly reversible growth hormone deficiency

disliked close physical contact. Relationships with parents and siblings are marked by sullen withdrawal or defiant hostility. At home and school an unhappy mood predominates. There are no close friends and self esteem is poor. Parental efforts at controlling undesirable behaviour are met with defiance and a seeming tolerance to most physical punishments. Some parents resort to bizarre techniques, often with sadistic overtones—for example, shutting fingers in drawers, beating the soles of the feet, making the child stand for prolonged periods with hands on head, and withdrawing food. Antisocial behaviours may be habitual, especially petty pilfering at school. In younger children apparently senseless destructive acts (smashing new toys) are indicative of inner turmoil and distress.

Parent-child relationship

The depth of the alienation in family relationships may not be gauged by a casual observer in the surgery or outpatient clinic. An abused child may nevertheless be brought for medical attention and investigations. You must not be deflected from a penetrating inquiry by the parents' seeming concern for the child's welfare. It is naive to imagine that emotional rejection and abuse are easily resolved by persuading the parents to give the child up to alternative caretakers. Quite apart from the possible role of that child as a focus for broader discontent within the family, parents may be exquisitely sensitive to the opinions of relatives and neighbours. They may fear the attentions of the police.

In addition to the emotional rejection and criticism—for example, telling an 8 year old child, "You've got custard for brains"—and the physical abuse to which I have alluded, doctors are becoming increasingly aware of the extent to which sexual abuse is a part of this syndrome. Sexual assaults may be incorporated into the regimen of punishments. Children may be subjected to a lifestyle that holds to few norms of socially acceptable behaviour. Both girls and boys are equally vulnerable.

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The ABC of Clinical Genetics will continue next week. The 10th article in this series, which has been edited by Professor Roy Meadow, will appear on 22 July.

1 Griffiths R. *The abilities of babies*. London: London University Press, 1954.

MATERIA PARAMEDICA

Halitosis: what, me?

It is axiomatic that one cannot smell one's own breath—fortunately. This inability could be due to the rapid accommodation of olfactory perception to a persistent odour. Those of my patients who complained of being aware of their own persistent foetor oris were invited to exhale while I and my staff nurse sniffed their breath. In no case was there any odour. The obsession of an imagined halitosis is a neurosis that resists persuasion and is, I suspect, allied to the hand washing syndrome. As to those whose breath has a persistently disagreeable odour, they are mercifully unaware of it unless informed of the fact. When the cause is not to be found in defective oral hygiene, bronchiectasis, or a penchant for certain notorious foods and beverages, then I suspect a hypothetical metabolic variant that yields a volatile substance to the breath. After all, acetone can be smelt in the breath of untreated diabetics and during starvation.

I had two colleagues whose breath stank, and it was particularly interesting that the odour was identical in both. This caused me to postulate a specific, but unknown, metabolic variant. They were, and have remained, in excellent health after many years. I was puzzled by the tolerance of their spouses. There was, however, a report in this journal from an Israeli group describing persons who lacked the capacity to detect the characteristic odour of urine secreted after eating asparagus. So perhaps there are other anosmias specific to certain odours. That might have been a saving grace to the above mentioned spouses. Alternatively, *omnia vincit amor*.

Animals, too, may exhale odoriferous substances. This subject lies largely outside my ken. The tsetse fly *Glossina morsitans*, vector of sleeping sickness (African trypanosomiasis) is attracted to the cattle it bites by the odour of acetone and octenol in the cattle's breath. These two substances are easy to synthesise and are successfully used in tsetse fly traps, increasing the catch by up to 10-fold.¹

Talk about breath odour seems always to be pejorative. There is no antithetical term to halitosis. Is the breath of mankind never agreeably aromatic? Apparently not. In health it is devoid of detectable aroma. In all probability your dog detects a rich mixture of smells reflecting the content of recent meals and your emotional state: if so, the human nose by contrast perceives nothing.

Those old enough to remember the Austrian Jewish tenor Richard Tauber will know that, despite his having a fine repertoire of operatic arias and lieder, such was his popularity that at concerts he was virtually obliged to yield to the audience's cries for encore with what became his unofficial signature tune, "You are my heart's delight," from *The Land of Smiles* by Lehár. There is nothing about breath in the English version, but in translations of the words of songs the translated version inevitably differs from the original because of the impossibility of getting the scansion right in a literal sense.

In the original, the second verse reads:

Ich möchte deinen Atem trinken
Und betend dir zu Füßen sinken
Dir, dir allein!

which may be translated:

I want to drink in your breath
And kneel before your feet
Praying to you, to you alone!

The notion of inhaling the breath of a loved one is an unusual expression of physical intimacy. Perhaps Lehár's librettists, Ludwig Herzer and Fritz Löhner, knew something that I don't. —BERNARD J FREEDMAN

1 Minter DM, White GB. Medical entomology. In: *Manson's tropical diseases*. 19th ed. London: Baillière Tindall, 1987:1461.