

CASE REPORT

Psychological management of two cases of self injury on the paediatric intensive care unit

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Self injury has not been previously reported in an intensive care setting. Two cases are presented of ventilator dependent children with high spinal cord lesions who exhibited an unusual form of self mutilation, namely lip biting. The key to extinguishing this behaviour was to address the children's psychological needs.

The British Paediatric Association¹ has recommended that the psychosocial needs of children on paediatric intensive care units (PICU) be addressed, but only a minority of units in the UK have a child psychologist attached to their team.² Although case reports indicate that psychological intervention alleviates post-traumatic stress after intubation in paediatric patients,^{3,4} little is documented on children's direct experience in this setting.⁵ Adult ICU survivors retrospectively report being distressed by communication difficulties and their lack of control over what is happening to them. They describe the inability to speak, with an endotracheal tube in situ, as being particularly isolating and frightening.^{6,7}

In this paper, two cases are presented of children of normal intelligence, with spinal cord injuries, who exhibited a particular form of self injurious behaviour (lip mutilation by biting) during admission to PICU. This behaviour is rare and usually associated with severe brain damage,^{8,9} but, as is the case with other forms of self injury, it is amenable to behavioural treatment. Management involves selective attention to the child when they are not exhibiting the behaviour and the provision of more appropriate forms of stimulation¹⁰

CASE 1

A 6 year old girl was admitted to the PICU after she sustained a shrapnel injury during a shelling incident, in which her mother was killed. She required neurosurgical and general surgical intervention to remove the embedded shrapnel and repair the damage caused to her small and large intestines. It became apparent subsequently that she had also sustained a high spinal cord injury and could not be weaned from ventilatory support following the initial operation. A magnetic resonance scan of her spine confirmed changes in the cervical spinal cord compatible with irreversible injury. She required a tracheostomy and long term ventilatory support.

The child was withdrawn and anxious, and repeatedly asked about her mother. Her relatives were initially reluctant to tell her that her mother had died, fearing the effect on her unstable medical condition. The child, further isolated by the fact that she spoke very little English, subsequently began to bite her lips and tongue. The use of physical restraints (gumshields) limited tissue damage in the short term but the behaviour only abated with increased psychosocial input. Management included direct involvement of a child psychologist who advised on emotional issues and behaviour

modification, and facilitated regular multidisciplinary psychosocial meetings. Play therapy support and advice on communication aids from a speech therapist were also instrumental in improving the patient's quality of life.

The behaviour reappeared a year later, immediately following the child's first visit to a rehabilitation facility. On this occasion the lip biting was quickly extinguished with a combination of reassurance, further information about discharge plans, and a behavioural programme whereby the patient was rewarded for not biting herself by being allowed to watch her favourite videotapes.

CASE 2

A 12 year old girl, admitted for spinal fusion, required halo traction for three months to stabilise her neck postoperatively. She developed persistent left lower lobe consolidation, complicating her respiratory weaning. This was unresponsive to conventional intravenous antibiotics and chest physiotherapy. Mycobacterium tuberculosis was subsequently isolated from the endotracheal aspirates. She remained on ventilatory support until her pulmonary tuberculosis was adequately treated, and required a tracheostomy to facilitate this. During the weaning process attempts were made to reduce ventilatory support during the day, in order to build up her respiratory muscles.

Following the operation, the child frequently appeared angry and distressed, on several occasions spitting at nurses caring for her. She also exhibited lip biting and was referred to the psychologist who, with the help of an interpreter, established that the girl had a number of fears about death, not least because the hospital sheets reminded her of her dead grandmother's shroud. It emerged that the girl was especially fearful that she would die in the night if she forgot to breathe. She was consequently trying to fight sleep and in doing so becoming increasingly tired and anxious. She was reassured by staff who were able to explain that the ventilator was turned up at night and the lip biting behaviour diminished, although the child remained difficult to manage and failed to form attachments to the ward staff before discharge.

DISCUSSION

These case histories are significant in that (a) they are examples of the development of a very rare form of disturbed behaviour in children in the absence of mental handicap, and (b) they provide a harrowing illustration of psychological distress in ventilator dependent children, being cared for in an acute medical setting.

The fact that such children are often more aware of what is going on around them than other patients on the PICU means that they are more likely to be affected emotionally by separations from family and by having multiple carers, as well as being at much greater risk of witnessing untoward events.¹¹ Sadly an increasing number of these patients are spending long periods in intensive care because of practical problems arranging discharge.¹² A recent study exploring the hospital

experiences of a group of ventilator dependent children, has concluded that prolonged PICU admission has a "profound and negative impact" on the child's quality of life and argued that technically some of the basic human rights of these children are not being upheld.¹³ This paper highlights the importance of attending to the psychological needs of this vulnerable group.

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REFERENCES

- 1 **British Paediatric Association**. *The care of critically ill children. Report of a multidisciplinary working party on intensive care*. London: British Paediatric Association, 1993.
- 2 **Colville G**. Psychosocial support on the paediatric intensive care unit: a UK survey. *Care of the Critically Ill* 1998;**14**:25–8.
- 3 **Gavin LA**, Roesler TA. Posttraumatic distress in children and families after intubation. *Pediatr Emerg Care* 1997;**13**:222–4.
- 4 **Colville G**. The role of a psychologist on the paediatric intensive care unit. *Child Psychol Psychiatry Rev* 2001;**6**:102–9.
- 5 **Playfor S**, Thomas D, Choonara I. Recollection of children following intensive care. *Arch Dis Child* 2000;**83**:445–8.
- 6 **Menzel LK**. Factors related to the emotional responses of intubated patients to being unable to speak. *Heart Lung* 1998;**27**:245–52.
- 7 **Hafsteindottir TB**. Patients' experiences of communication during the respirator treatment period. *Intensive Crit Care Nurs* 1996;**12**:261–71.
- 8 **Nyhan WL**. Clinical features of the Lesch-Nyhan syndrome. *Arch Intern Med* 1972;**130**:186–92.
- 9 **Bryson Y**, Sakati N, Nyhan WL, et al. Self-mutilative behavior in the Cornelia de Lange syndrome. *Am J Ment Defic* 1971;**76**:319–24.
- 10 **Carr EG**. The motivation of self-injurious behavior: a review of some hypotheses. *Psychol Bull* 1977;**84**:800–16.
- 11 **Gemke R**, van Bonsel G, Vaught J. Long term survival and state of health after paediatric intensive care. *Arch Dis Child* 1995;**73**:196–201.
- 12 **Fraser J**, Mok Q, Tasker R. Survey of occupancy of paediatric intensive care units by children who are dependent on ventilators. *BMJ* 1997;**315**:347–8.
- 13 **Noyes J**. Enabling young "ventilator-dependent" people to express their views and experiences of their care in hospital. *J Adv Nurs* 2000;**31**:1206–15.

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