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ORIGINAL ARTICLE

Patients' dreams in ICU: Recall at two years post discharge and comparison to delirium status during ICU admission
A multicentre cohort study

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Summary Discharged intensive care unit (ICU) patients often recall experience vivid dreams, hallucinations or delusions. These may be persecutory in nature and are sometimes very frightening. It is possible that these memories stem from times when the patient was experiencing delirium, a common syndrome in the critically ill. Routine screening for delirium in ICU is becoming more prevalent, however, little has been published comparing the objective development of delirium (patient observations using screening tools) and patients' subjective recollection of dreams and unreal experiences in the ICU.

This study describes the relationship between observed behaviour during ICU admission and the subjective memories of ICU experiences amongst 41 participants in three ICUs up to 24 months post discharge. Overall, 44% of patients ($n = 18$) recalled dreams during their ICU admission. There was a trend to increased prevalence of dreaming (50% versus 39%) amongst the 18 patients who were delirious during their ICU admission than in the 23 non-delirious patients. Dreaming was significantly associated on logistic regression with increased length of stay (OR 1.39, 95% CI 1.08—1.79, $p = 0.01$), but not delirium status (OR 1.56, 95% CI 0.45—5.41, $p = 0.49$).

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A longer ICU stay was significantly associated with the experience of ICU dreaming. As many dreams are disturbing, we suggest providing information and counselling about delirium to patients who remain in ICU for longer periods.

Introduction

Delirium

Delirium in the intensive care unit (ICU) is now well documented in the literature to occur in 20–85% of patients (Ely et al., 2004a). Incidence may rise even further in the future as increasingly older people with more complex morbidity are admitted to ICU. Many ICU patients display signs of agitation, bizarre or out of character behaviour. Most health care workers in ICU are able to identify an agitated and restless patient as delirious, but to recognise the patient with the lethargic variant of delirium is extremely difficult (Roberts, 2001). Hence, symptoms in this group of patients are often overlooked, and indeed delirium is reported to be under-diagnosed or unrecognised in 70% of cases (Ely et al., 2004b). Delirious and agitated patients pose a particular problem in the ICU setting because they are often attached to life-saving devices such as endo-tracheal tubes, inter-costal catheters and central venous lines where accidental removal of these devices may have detrimental effects to their safety. Delirious patients have increased morbidity and mortality, and are often linked to an increased length of both ICU and hospital stay (Ely et al., 2001a).

Dreams and hallucinations

Physical outcomes from ICU are well documented but the psychological effect of an ICU stay has attracted interest in the literature only in recent years (Cuthbertson et al., 2004; Schragg et al., 2001). Delirious ICU patients (whether agitated or lethargic) may experience vivid dreams, hallucinations or delusions, which can be persecutory in nature and are sometimes very frightening for patients, who may believe that they are ''going crazy'' (Griffith and Jones, 2001). Granberg et al. (1998) likens the experience to a state of chaos and further in 1999 described it as an ''unreal experience''. The authors defined this as ''visual and/or auditory phenomena which appear in a condition experienced as totally wakeful or in a condition between wakefulness and sleep'' (Granberg et al., 1999, p. 29). Some patients may choose ''not to remember anything'', because they feel ashamed of not remembering properly, or scared of being labelled ''mentally unstable'' (Griffith and Jones, 1999).

Jones et al. (2001) divide memories into four different categories (1) no factual, with some delusional recall; (2) factual and delusional recall; (3) factual, with no delusional recall and (4) no factual and no delusional recall. Delusional memories are the commonest in ICU patients and often associated with lack of factual memories of ICU (Capuzzo et al., 2004). Roberts and Chaboyer (2004) reported mixed experiences from a follow-up study of 31 patients with 14 patients recalling nightmares whilst in ICU and nine classifying the dreams as either good or indifferent. Papathanassoglou and Patiraki (2003) interviewed eight survivors of ICU, who described themes associated with ICU dreams such as transformation of perception, distortion of body and bodily sensations with an emphasised feeling of heightened spirituality, personal rebirth and awe at the wonders of life.

Delirium assessment in ICU

The incidence and circumstances of the development of delirium are rapidly gaining interest in the professional literature (Dubois et al., 2001; Skrobik, 2003; Truman and Ely, 2003). Delirium screening tools have been developed specifically for critically ill patients considering their inability to verbalise whilst intubated (Bergeron et al., 2001; Ely et al., 2001b,c). Similarly, a growing body of literature examining the neuropsychological outcome from ICU has emerged. These studies describe patients' memories and experiences as well as the extent of their psychological recovery (Cuthbertson et al., 2004; Jackson et al., 2003; Jones et al., 2003; Kapfhammer et al., 2004).

Nevertheless, little has been published on the relationship between the objective development of delirium (patient observations using screening tools) and the patients subjective recollections of memories, dreams and unreal experiences. Searching MEDLINE and CINAHL using MeSH-terms including delirium, screening, follow-up, memories and dreams revealed only two previous studies, one