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ICU Patients memory and experiences of moderate and severe delirium

A paradigm case study

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Jones et al. (2000) ICU memory tool

- Jones and her collaborators (2000) describes the patients' ICU memory as being

fragmentary, emotional and delusional

using the ICU memory tool, who even showed that some ICU patients developed a posttraumatic stress reaction after their discharge.

Granberg , Bergbom ,Lungberg (1998)

- “jigsaw puzzle memory”

Events are recalled as pieces of sequences, a sort of “jigsaw puzzle” memory. The patients could describe “events, happenings and sequences”, relating to particular things or people; which means their environment, different carers, nursing actions carried out; and important emotional experiences reflected in their daily care routine.

- “detail memory ,like a story “

But patients who had memories of acute confusion and the occurrence of so called “unreal experiences” could remember these in detail and describe their feelings and experiences as a narrative, like a story with a beginning , a middle and an end..

Definition, delirium

Lipowski (1990)

- Delirium is, by Lipowski (1990) defined as a mental disorder characterised by an acute onset, an altered level of consciousness, a fluctuating course, and disturbances in orientation, memory, thought, and behaviour.

Liptzin and Levkoff (1992) classified subtypes of delirium

- "hyperactive" (hyper-vigilance, restlessness, fast or loud speech, irritability, combativeness, impatience, swearing, singing, laughing uncooperativeness, euphoria, anger, wandering, easily startled, fast motor responses, distractibility, nightmares, and persistent thoughts)
- or "hypoactive" (unawareness, decreased alertness, sparse or low speech, lethargy, slow movements, staring, and apathy).

Ely et al. (2001) The Confusion Assessment Method” CAM ICU

- The Confusion Assessment Method” - CAM ICU developed by Ely et al (2001) uses DSM IV as a basis regarding the specific situation of the ICU patient.

From the analyses of the observations and interviews, based on the patients' descriptions of their experiences of acute confusion, dysfunctional speech and thought and their unreal experiences, they were classified into three groups: **Granberg et al. (2001)**

- Severe delirium (SD)
- Moderate delirium (MD)
- Mild/non delirium (ND)

The aim of this study

The aim of this study was to record, as paradigm cases, ICU patients recall and perspective of either moderate or severe delirium, and to compare the patients memory and experiences with the observations of the clinical signs of the ICU delirium.

Method

- **Method.** A total of 31 mechanically ventilated patients, having a stay of at least 36-hours at the ICU were observed: 19 of these patients were interviewed twice. Of these three study cases were collected, one was judged to be a typical example of a patient who had developed a severe, and two who had developed a moderate ICU delirium
- The paradigm case method used is the method of Benner's theories about paradigm cases.

Patient A with (having) moderate delirium "The abnormal becomes the normal"

- The patient, a 73 years old widowed man, was, before his retirement, a foreman at a chemical factory. He usually took care of himself, The patient was operated on for an aorta aneurysm without any intraoperative complications.

Postoperatively some complication appeared. His stay in the ICU, therefore, lasted about 5 days during which time he was mechanically ventilated for 22 hours.

**Table I. The process described by observations, data and by patient.
Patient A "the abnormal becomes the normal".**

	2 h after extubation	20 h (7 am - 10 am)	34 h (21 pm - 23 pm)	49 h (12 am - 1 pm)	73 h (12 am - 1 pm)
Nurse info	"Normal" extubation process. Satisfaction communication	Troublesome and uncomfortable night. Pain in chest, heavy breathing. Slept 5 h.	Chest pain. Diuresis decreased. Change of puml cath. Lying quiet and without movement.	Few h sleep. Clear sentences. Not so frightened anymore.	Slept between 1-6 am. Worried, irritated, wanted to be left alone. "He felt a sort of crawling and tingling sensations".
Environment	4 bed ward, close to the window. 3 other patients. (two of these were ventilated)	4 bed room. 3 other patients (one ventilated, one patient was disturbing and aggressive) 15 staff pass during 3 h.	4 bed ward. Loudly environment. Bright light. High activity. Lots of staff talking and joking.	4 bed ward.	4 bed ward.
Behaviour/ reactions/ clinical signs	Jokes, communicates, interested in surroundings, equipment and other patients.	Moves adequately. Afraid of falling out of bed, tense, heavy "traffic". Active participation in physiotherapy. Rests. Correct sentences. Not delay before replaying. Relaxed and calm.	Tells: do not feel well. Mumbling, sometimes incoherent speech. Uncoordinated movements. Holding the safety bars hard. Tells that he sees flies on the curtain.	Not holding safety bars. Both mumbling, incoherent and also complete sentences. Do not want to stand up on the floor.	Looking at TV. Some incoherent speech. Moves adequately. Seems relaxed.
OBS-scale		Disoriented to time, not knowing if it was night or day.	Disoriented to time.	Disoriented to time and date.	Disoriented to time.
Patients experiences	Calm, knows operation was OK. Suddenly frightened by hard noise.	Experienced that the clock had gone crazy. He felt a bit crazy.	A feeling of fear. He lost his ability to speak. He saw a lot o flies in the roof. The floor around his bed turned into a two metre deep trench.	The flies had grown to big and white. When moving to another room, the flies were still there. The perspective of the lamp above changed.	Felt tired, but almost normal again.

Patient with a severe delirium

Patient C : Struggle, decisions and survival

- The patient was a married man, 82 years of age. Before retirement he had been the manager of a company.

The patient underwent an extensive throat operation, which necessitated a complicated care and treatment procedure because of massive bleeding. The stay in the ICU lasted for 11 days, and he was mechanically ventilated for 9, days.

Struggling, decisions and survival

- *“just like beads spaced on a necklace”.*
- “You are just going on when suddenly the ground disappears from under your feet and you seem to enter a sort of total darkness.
I know, and can remember what had happened up to this point, but after that I was engulfed by this ‘darkness’.
When I came round, I felt as if reality had disappeared, and the only things that existed for me were these strange fantasies”

Table 3. The process illustrated by observation data and described by the patient.

Patient C: "struggling, decisions, survival"

	2 h after extubation	10 h after extubation	24 h after extubation
Nurse info	No sleep because of noisy other patient. Sedation withdrawn. Wanted to sit up and does so.	During afternoon temporarily clear and sometimes disoriented. Hallucinations, plucking, worried. Wanted to go home.	Only a few h sleep. Worried. Wanted to go home. He thought he was in a hotel.
Environment	Two bed ward. Wife present.	It was quiet in the room. Only one patient.	The ventian were down. Peaceful atmosphere, minimum of equipment.
Behaviour/ reactions/ clinical signs	He wanted to go home. Expressed that he has been disturbed by other patient. Constantly talking. Complete sentences. Temporarily mumbling. Nurse could not understand. Worried, do not remember sitting on the edge of bed. Mumbles about worms etc. Wants to get up. Uncoordinated movements. Talks and moves continously, watchful.	Tired, holding safety bars. Wanted to go home - tried to get out of bed. Was in "lounge". Some mixing of reality. Afraid of dark horried eyes. Called everyone by the same name and everybody came from the same village. He said "is it necessary to have so many guards here?"	Reality mixing. Partly carries out personal hygien. Wanted to go home. He said "I am three persons, one of them was sick. The sick person was in a bad hotell in Norrköping without any toiletts. I am paralysed in my arms and legs"
OBS scale	Disoriented to time, day and place. Disoriented to clock/morning/evening.		
Patients experiences	Ongoing "unreal experiences", stories, "out of control", about struggle, choises, final desicions about living or die. The pictures/dreams replace each other. No idea of time, no beginning, no end.		

The variety and extent of the ICU delirium

Severe Delirium

- The patients with SD reported that their unreal experiences were already present when they returned to consciousness/wakefulness, and that they were disturbed by the recurrence of these, which could last for several days.

These patients related, in addition to disorientation, difficulties in speaking, sleeping disturbances and severe chaotic feelings of being out of control, and that they were engaged in a fight for survival. Patients often described their unreal experiences as being bizarre.

These patients could not distinguish between periods of being awake or asleep, and their day rhythm disappeared because their ongoing unreal experiences precluded any possibility of separating night from day, of distinguishing being asleep or being awake.

Moderate delirium

- The group of patients classified as having MD described and reported a few unreal experiences which often returned for a couple of hours, usually occurring or developing during the days following extubation.

They felt emotionally vulnerable, sometimes in combination with a disordered state. As a rule, they believed that they were in control of themselves, and could understand and remember information. However, patients also stated that they experienced some degree of fear and uneasiness all the time, and that anything, even apparently small and unimportant events, could trigger unreal experiences.

Some patients said that unreal experiences occurred when they tried to get to sleep, or when they were falling asleep.

The qualitative research

- The qualitative research, from the patients' perspective of experienced ICU delirium, is still of great value. The insight and understanding of ICU patients' reports are today of significant importance for giving the patient a focused care and treatment, and a professional ICU follow –up.