

was used as method of analysis. Four main themes emerged from the data:

- i. emotional landscapes,
- ii. adaptation to a new situation (with subthemes: creating control, external and internal support in a difficult situation, normalizing the abnormal and reconciliation to uncertainty),
- iii. moments of rebirth and
- iv. transformation of attitudes towards life and the existence.

### 31 CRANIAL NEUROSURGERY WITHOUT HAIR REMOVAL AND SHAMPOO CARE: RETROSPECTIVE ANALYSIS OF 450 CASES

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**Background** Trichotomy is a standard procedure in neurosurgery that aims at reducing infection rates. In children, psychological consequences associated to the whole head's hair removal are remarkable. Over the past twenty years the risk of infection associated to neurosurgical procedures has been thoroughly analyzed. Two negative consequences are associated to trichotomy: the loss of the natural defences offered by hair, and multiple skin lesions that increase bacterial growth. Our hospital established a protocol consisting of head washes before and after cranial neurosurgery with antiseptic shampoo, followed by daily washes with neutrum soap when the patient is discharged ("shampoo care").

**Goal.** To assess infection rate in a population of children who underwent cranial neurosurgery without hair removal.

**Methods** Retrospective analysis of clinical records of children undergoing cranial neurosurgery with "shampoo care" during one year.

**Results** 450 children were included. 5.55% of them had a wound complication, with only two cases of infection (0.4%). Available literature was revised to assess the effectiveness of our protocol. Wound complication and infections rates found in our experience were lower than those reported in patients treated with a standard trichotomy.

**Discussion** Cranial neurosurgery without hair removal and "shampoo care" is an effective method to reduce infection rates. This results in a shorter hospital stay, better self-esteem and improved quality of life when the child goes back to family life and school.

### 32 CHRONIC PAIN IN THE NEWBORN, A DELPHI SURVEY TO DEFINE THE CONCEPT

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Chronic pain in the newborn has been poorly addressed in neonatal pain research. To date there is no clear definition. A three round, webbased Delphi survey aiming at providing a definition of chronic pain in the newborn was designed. We invited an international panel of experts in the field of neonatology and neonatal pain to participate.

Participants (n=189) answered in the first round three open-ended questions: (1) what is the definition of chronic pain, (2) what are possible causes and (3) what are the signs and symptoms? The answers were categorized into 437 statements. These statements were valued by the participants on a 5-point Likert scale in the second round. Statements with mode or median  $\geq 4$  and mean  $\geq 3.75$  were selected for analysis in the third round of the survey. These threshold values were used to provide the opportunity to reach consensus in subsequent rounds. In the third round the remaining

participants (n=72) were asked to reflect on the group response regarding the remaining 65 statements. Provided with their own value from the previous round, the participants were able to revalue the statements. This process resulted in 34 statements with mode, mean and median of  $\geq 4$ , in which the participants reached consensus.

Several etiologic factors were defined, but no useful diagnostic criterion could be identified. The Delphi survey resulted in a description of chronic pain in the newborn. Identifying chronic pain is clinically relevant because it interferes with growth, prolongs hospitalization and leads to altered pain perception.

### 33 THE BLACK BOX OF PAIN ASSESSMENT IN EXTREMELY PREMATURE NEWBORNS REMAINS CLOSED

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**Background and aims** In our NICU nurses assess the neonates' pain with the validated COMFORTneo scale three times per day and additionally if they suspect pain. We treat more and more extremely premature neonates from 24 weeks gestation. In this study we explore if the COMFORTneo scale is valid for these extreme premature neonates.

**Methods** COMFORTneo scores and Numeric Rating Scale (NRS) scores for pain and distress from 2011 were extracted from the patient data management system. We selected scores assigned in the first 28 postnatal days and considered three gestational age groups: extreme prematures: 23.6 to 27.0 wks, prematures: 27.1 to 35.6 weeks and term borns: 36 weeks and older.

**Results** We retrieved 9915 scores in 638 newborns. The median number of scores per patient was 41 (IQR 28 to 55) for 76 extreme prematures; 8 (IQR 3 to 18) for 329 prematures; and 3 (IQR 1 to 9) for 233 term borns. 10.0% of scores for the extreme prematures; 9.1% of scores for the prematures; and 15.8% of scores for the term borns suggested pain or distress (COMFORTneo score  $\geq 14$ ). Correlations between the COMFORTneo scale and the NRS pain ranged from 0.42 (extreme prematures) to 0.53 (prematurs); those between the COMFORTneo scale and the NRS-distress 0.76 (extreme prematures) to 0.85 (term borns). Internal consistencies varied from Cronbach's alpha 0.73 (in extreme prematures) to 0.85 (in term borns).

**Conclusions** The COMFORTneo scale has acceptable psychometric properties for extreme prematures but we should continue to study other assessment strategies.

### 34 PARENTAL VIEWS OF PAEDIATRIC INTENSIVE CARE TRANSFERS

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**Background** In 2001a study was performed exploring the parental experience of our combined retrieval service for critically ill children, (Colville, Orr & Gracey 2003). The results of this study changed the way the service was provided and introduced the opportunity for a family member to travel with their child in the ambulance for the transfer. Ten years on it was decided to repeat a questionnaire to gain an insight into how families perceived the current service and seek further ways to improve the parental experience at this stressful time.

**Method** Having gained approval from the Research and Develop team at the base hospital a questionnaire was given to all families whose child was transferred by the South Thames Retrieval Service to the Evelina Children's Hospital during January 2012.

**Results** During this period 43 questionnaire were returned. The majority felt the service was already at a very high standard citing phrases, 'caring and reassuring', 'made to feel special'. One family requested more information pertaining to the drugs used during the stabilisation and transfer process and one family felt the team's projected timings could have been more accurate for them to organise their other family responsibilities.

**Conclusions** This study has been insightful into the parent's experiences of having their child transferred by a retrieval team. Actions are underway to address areas highlighted by families as discussed above.

We plan to replicate this study in other regions to gain a national perspective of parents' perceptions of the transfer process.

### 35 A SURVEY OF STRESS RESOURCES AMONG PARENTS OF CRITICALLY ILL CHILDREN IN PICU WARD

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**Introduction** Pediatric intensive care unit (PICU) has long been recognized as a highly stressful place. Admission of a child to the PICU maybe one of the most stressful events for parents. Therefore this study was done to determine stressor resources of parents in PICU.

**Method** A descriptive cross sectional study was carried out by using data obtained through "parental stressor scale: (PSS: PICU) to examine sources of stress among parents. A convenience sample of 25 parents whose child had recently admitted to PICU were subjects for study demographic data were collected using an investigator designed questionnaire, then parental stress was measured with parental stressor scale the PSS:PICU scale is a 37 item instrument in 7 subscale that uses a likert-type scale to measure source of stress in PICU.

**Findings** After measurement of stress in parents with PSS result revealed that in a comparison of mean score on the 7 dimensions of the PSS: PICU parent found the "Alteration in parental role "to be the greatest source of their stress (3.74±0.61) and the second highest ranking stressor was a "Not knowing what to expect".(3.56±0.70).

**Conclusion** Result suggests the need to prepare parents for role alteration when a child is admitted to PICU. They should also be encouraged to participate in the child's care and provides comfort measures. We need to consider creating spaces that not only address family needs to remain present with their child, but also creating space for parents to partner in decision making and care planning.

### 36 PATIENT SAFETY: CULTURE SHIFTS OVER TIME

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**Background and aims** Although patient safety is a major topic in organisations worldwide, many patients are still confronted with errors that cause discomfort, harm and sometimes even death. A safety program including activities to improve the healthcare processes and techniques is more effective when combined with a positive safety culture. The purpose of this study was to evaluate the safety culture in order to fine-tune our safety program.

**Methods** A survey was undertaken among paediatricians and specialized nurses by means of the Hospital Survey on Patient Safety Culture before (2009) and after (2011) the start of a safety program on five paediatric wards. The results of these five wards (group A) were compared with two wards (group B) where the program was implemented before 2009.

**Results** In group A significant more positive ratings were found on seven dimensions in 2011 compared to 2009:

- 'frequency of events reporting': 64% versus 47% (p=0.003)
- 'non punitive response to error': 93% versus 80% (p=0.001)
- 'communication openness': 97% versus 87% (p=0.001)
- 'feedback and communication about error': 90% versus 68% (p=0.000)
- 'hospital management support for safety': 61% versus 37% (p=0.000)
- 'staffing': 50% versus 32% (p=0.002)
- 'overall perceptions of safety': 64% versus 50% (p=0.016)

The differences between group A and B became smaller on all dimensions except 'communication openness'.

**Conclusions** Implementation of a patient safety programme improves the culture on most dimensions. Our results guide future activities focused on the dimensions that did not reach satisfactory levels.

### 37 ASSESSING CLINICIANS' KNOWLEDGE AND CONFIDENCE PERFORMING FOUR EVIDENCE-BASED PRACTICES IN THE NICU USING THE NEONATAL UNIT CLINICIAN ASSESSMENT TOOL

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The evidence that breast milk feeding reduces mortality and short and long-term morbidity among premature and small babies is well established but breastfeeding rates in neonatal units in the UK remain low. We present a case study of how a tertiary hospital unit with 100 staff undertook the Neonatal Unit Clinician Assessment Tool (NUCAT), an on-line objective knowledge test with ratings of confidence and knowledge in breastfeeding, breast milk expression, kangaroo care and positive touch knowledge and practices. Fifty one medical and nursing clinicians completed NUCAT. We report descriptive statistics (n=51), and paired t tests for pre-post knowledge test confidence items, and difference statistics (Chi squared and t tests or one way ANOVAs for establishing differences in knowledge and confidence (Dependent Variables) on personal descriptive variables (Independent Variables). Confidence in knowledge was significantly reduced when individuals received their scores, but confidence in breastfeeding practice was not reduced. More staff scored better on the practical than knowledge based areas. Doctors, those with more neonatal experience and years since qualifying were not more knowledgeable than other clinicians overall, but clinicians with more senior positions knew more about the knowledge underpinning breastfeeding practices. Data reported include regression of job type, prior training, years since qualified, years working in neonatal care, intensity of direct care duties, on knowledge and confidence scores which help to target future training on those with most urgent job requirements for these practice skills. Training recommendations are discussed.

### 38 ALICE IN CYBERLAND: USE AND ABUSE OF INTERNET BY YOUNG PEOPLE AND HOW TO RESPOND TO THEM

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Children and adolescents living nowadays were born with internet and the so called information and communication technology "ICTs", which belong, in most countries of the world, to their everyday life. Not only are pediatricians and health professionals faced with questions from an increasing number of parents, but they will more and more in the future have to consider the assessment of