EORNA 2017

ABSTRACT BOOK

ORAL PRESENTATIONS

PARALLEL A1
THE WELL-BEING OF THE NURSES

OP01

Share the care! Stress and can we become more resilient to this epidemic?

Donnelly Teresa-Tansey Greg
Ireland

A Motivational Presentation on Coping with Stress!
Background and Introduction:

In recent years there has been an increasing interest in the psychological impact of the work environment on health care workers (Alves 2005). Stress may cause illness indirectly via a behavioural path through an increase in inadequate coping behaviours such as increased smoking and alcohol use as a pressure shield. Stress may also cause illness through a direct physiological pathway where the changes in stress hormones have a direct effect on organs such as the heart and the gastro-intestinal tract, cholesterol levels and the immune system (Mc Carthy, 2010). Occupational stress is prevalent among nurses. It can result in long term physical and psychological illness, role conflict and job dissatisfaction (Lambert and Lambert, 2001, Alves, 2005, Sveinsdottir et al, 2006). There is now a greater need for workforce flexibility and sharing of services. Working in this type of environment is potentially very stressful (McCarthy, 2010). The author is a clinical nurse manager in the Operating Department. The interest in carrying out a study on stress has been generated by personal experience of working in potentially stressful situations. This is due to reduced resources such as staff shortages, poor skill mix, increased work demands and sometimes obsolete equipment with inadequate replacement or maintenance. The author's interest was further increased by exploring the work environment and witnessing increasing work demands. Staff at times have shortened or no breaks and very often don't finish their shift on time due to lists over run. She has also observed colleagues stressed behaviour in practice noting a high rate of absenteeism due to illness. Informal discussion with colleagues suggests stress is prevalent. This led her to examine the literature surrounding stress and the nursing profession.

The possession of affirmative personality traits such as temperament, cognitive ability to adapt, fast decision making and the aptitude to seek solutions are all associated with high resiliency. Grafton et al (2010) list traits associated with resilience to include coping, self-efficacy, optimism, placidity, tolerance, faith, ability to adapt, self-esteem, and a sense of humour. Resilience is recognised as one of the central concepts to prevent and recover from mental illness. Knowles et al (2011) reported that a person's degree of resilience is influenced by rudiments including Culture, Health beliefs, Social support (friends and family), Determination, Past experience with hardship, Ability to balance risk and protective factors, Self-efficacy, Hope, Self-esteem and Coping.

The author advises that recognising the benefit of resilience may help reduce nurse's stress and illness associated with stress. Resilience may reduce attrition and improve retention of much needed nurses. It is important to consider it is an innate quality that can be nurtured.

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OP02

Determination of the Effect of Organizational Stress on the Fatigue of Operating Room Nurses

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Turkey

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Introduction and Aim. Fatigue is wide problem among nurses.Especially nurses who work in shifts tend to be tired than the nurses working during the day(3).The aim of this study was to evaluate the effect of organizational stress on the fatigue of operating room (OR) nurses.
Material /Method. This study was done with OR nurses working in a university hospital. 80 nurses were eligible for this study but we were able to obtain data from 46 nurses(response rate 57.5%).Data collection form consisted of demographic variables, Short form of Job Strain Questionnaire(1)and Piper Fatigue Scale (PFS)(2).Mann WU, KW and Spearman rho were used for statistical analysis of data.
Results. The mean age of nurses was 35.39±6.23years;87% were female.84.8% of nurses reported having middle income and 37% of them have a chronic disease.Plenty of them (82.6%)work as alternating scrub and circulating nurse.Average of daily working time of nurses is 13.12±7.40hrs/day,43.83±3.61hrs/wk. mean work experience in OR nurse was11.372±7.48years.More than half of nurses(52.2%)expressed feeling tired for months and their fatigue scores were 144.3±42.62 according to PFS.Gender, marital status, education level, family type and income level have no influence on fatigue levels on nurses($p>0.05$).However statistically meaningful relationship was found with scores of total Job Stress Questionnaire and all subcategories of PFS.It was determined that social dimension has an influence on cognitive/mood of OR nurses.Statistically meaningful relationships were found between cognitive/mood dimensions and duration of working time; affective meaning dimensions with having chronical illnesses, sensory dimension with the task in the operationg room($p<0.05$)There is a meaningful relationship between the feeling of being tired and total score obtained from PFS,ability dimension of organizational stress also has an influence on behavioral/severity affective meaning dimensions of PFS.
Conclusion. It was determined that organizational stress has an influence on fatigue of OR nurses.Preventive measures should be taken to reduce the organizational stress among OR nurses.

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OP03

Safety of Personnel in Perioperative Environments

McLeod Bonnie
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Safety at the Sharp End of the Stick

The safety of patients and employees in healthcare have historically been separately managed and regulated. Despite efforts to reduce injury rates for employees and adverse events for patients, healthcare organizations continue to see less-than-optimal outcomes in both domains.

Many workplace safety issues that directly affect the nurse also have an indirect effect on patient safety, and the two should never be addressed in isolation from one another. Nurses today routinely deal with critical issues related to the provision of safe patient care; however, they often do not pay attention to their own workplace safety issues.

The presentor will outline the six key risk areas for perioperative personnel injury and discuss strategies for risk mitigation and avoidance.

OP04

Evaluation of verbal abuse in the operating theater and its correlation with communication quality among physicians and peri operative nurses

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Introduction: The most common form of abuse in Operating Room is verbal abuse. Recurring verbal abuse has negative effects more specifically in the whole surgical team's morale; it may also lead to lower productivity and increase errors in the operating room. Bad communication causes lack of collaboration or teamwork interactions between nurses and doctors in hospitals and it may jeopardize patient safety.

Aim: The aim of the study was the determination of the frequency and the consequences of verbal abuse on perioperative nurses and surgeons and their correlation with the communication between perioperative nurses and surgeons.

Methods: it is a research synchronical study that took place in all Operating rooms of 12 General and University Hospitals in Salonica (3 private and 10 public) and our sample included 150 perioperative nurses and 65 surgeons. Verbal Abuse Scale as well as Jefferson Scale of Attitudes toward Physician–Nurse Collaboration was used in this study along with demographics. A higher total score reflects a more positive attitude toward physician–nurse collaborative relationships. For the data analysis, the statistical package SPSS v.20 was utilized.

Results: The majority of perioperative nurses (135/150, 89%) stated that they have experiences of verbal abuse in the workplace. The most frequent types of verbal abuse that was reported by the operating room nurses were unreasonable assignments of responsibility and accusations (mean 3.19; SD 1.26). Almost all surgeons (61/65; 95%) reported that they were subjected to verbal abuse inside the Operating Theater. Both surgeons (mean 4.39; SD 1.36) and perioperative nurses (mean 4.89; SD 1.59) considered the experienced verbal abuse to be from a moderate to a severe degree a stressful experience. A significant result was that perioperative nurses agree that surgeons should be specifically trained in the establishment of cooperative relationships with nursing personnel ($U=2845.5$ $p=0.002<0.05$) and that interrelation approaches should be established in order to create positive working relationships between surgeons and perioperative nurses something that should be included in their educational programs ($U=2883$, $p=0.001<0.05$).

Conclusions: Findings of this study generally confirmed our expectations. The vast majority of health professionals in the operating room states that verbal abuse incidents happened in presence of others, and perioperative nurses stated that blame and accusations is the most common form of verbal abuse. Despite the different approaches that surgeons and perioperative nurse have about teamwork, it is very positive that surgeons scored high in Jefferson scale as well as perioperative nurses, showing that perioperative nurses and surgeons began to see the importance of their professional communication and interdisciplinary cooperation by the same perspective. Shared training experiences can modify socially prescribed stereotypical roles and can contribute to a better acceptance of professional roles.

Keywords: verbal abuse, verbal violence, operating room nurses, physicians, operating theater, communication, working environment, Interprofessional cooperation

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PARALLEL B1
MAGICAL MYSTERY TOUR

OP05

A FUSE Magical Mystery Tour: What's Your Energy IQ?

Munro Malcolm
USA

Brenda C. Ulmer, RN, MN, CNOR

Surgical energy—does the array of surgical energy devices available to surgeons sometimes seem shrouded in mystery and complexity? Gone are the days when the primary hemostatic devices were sutures, the "bovie" or bipolar. From radiofrequency generators, to ultrasonics to microwave to radiofrequency ablation, the possibility of methods to dissect tissue and provide hemostasis seem endless. Do you have questions about electromagnetic interference, patient return electrodes, pacemakers, and implantable electronic devices?

Do you ever wonder if perioperative team members have the skills and the knowledge to use the devices safely and do no harm? As part of a postgraduate continuing medical education course, 48 experienced SAGES (Society of American Gastrointestinal and Endoscopic Surgeons) surgeons took an energy exam, and out of 11 answers, just 6.5 (59%) were correct. Fully one-third of the test takers did not know how to correctly handle a fire on a patient, 31% did not know which device was least likely to interfere with a pacemaker, and 13% did not know that thermal injury can extend beyond the jaws of a bipolar instrument.

What is your Energy IQ? AORN and SAGES collaborated to develop a Fundamental Use of Surgical Energy (FUSE) curriculum to train all perioperative team members on the safe use of electrosurgical instruments and devices. Join us on a FUSE journey that is neither magical nor mysterious, but based on sound scientific principles of the safe use of energy. The program will be divided into three sections with information on radiofrequency electrosurgery and electromagnetic interference with implanted electronic devices. The program will conclude with an overview of the FUSE certification exam, followed by a FUSE exam audience challenge to help gauge your FUSE IQ. The FUSE exam is expanding around the globe to train all perioperative team members on how to use electrosurgery devices and accessories safely.

OBJECTIVES

1. Identify fundamentals of radiofrequency electrosurgery (Part 1)
2. Describe the integration of surgical energy and patient cardiac rhythm devices (Part 2)
3. Relate the dangers of surgical smoke and the importance of smoke evacuation (Part 3)
4. Describe the FUSE program and review the FUSE Certification Exam (Part 4)

Objectives	Content	Presenter
1. Identify fundamentals of electrosurgery	I. Nomenclature in radiofrequency (RF) electrosurgery. II. Physics of RF electrosurgery III. Functions of an electrosurgery generator ESU IV. Mechanisms of RF energy effects on cells and tissues. V. Differences between vaporization/cutting and desiccation/coagulation	Malcom Munro “
2. Describe the integration of surgical energy and patient cardiac rhythm devices	I. Identify patients with implanted devices that might be adversely affected by RF energy. II. Surgical devices that can cause electromagnetic interference (EMI). III. Steps to determine how to use RF energy on a patient, in an elective situation or emergent situation, with an implanted electrical device. IV. Strategies to minimize electromagnetic interference (EMI) from RF energy on a Cardiac Implanted Electronic Device (CIED). V. Potential adverse effects of electromagnetic interference (EMI) on a Cardiac Implanted Electronic Device (CIED) during and after the use of RF. VI. Elements needed for preoperative evaluation of a patient with a Cardiac Implanted Electronic Device (CIED). VII. Situations in which a magnet placement may be indicated for a patient with a Cardiac Implanted Electronic Device (CIED). VIII. Identify modifications that need to be made when monitoring a patient with the Cardiac Implanted Electronic Device (CIED).	Thomas Robinson
3. Describe FUSE and review contents of the FUSE certification exam.	I. Explanation of FUSE exam and certification II. Audience participation/contest answering questions from the FUSE exam	Pascal Fuchshuber

OP06

A FUSE Magical Mystery Tour: What's Your Energy IQ?

Robinson Thomas
USA

Brenda C. Ulmer, RN, MN, CNOR

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Do you ever wonder if perioperative team members have the skills and the knowledge to use the devices safely and do no harm? As part of a postgraduate continuing medical education course, 48 experienced SAGES (Society of American Gastrointestinal and Endoscopic Surgeons) surgeons took an energy exam, and out of 11 answers, just 6.5 (59%) were correct. Fully one-third of the test takers did not know how to correctly handle a fire on a patient, 31% did not know which device was least likely to interfere with a pacemaker, and 13% did not know that thermal injury can extend beyond the jaws of a bipolar instrument.

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OBJECTIVES

5. Identify fundamentals of radiofrequency electrosurgery (Part 1)
6. Describe the integration of surgical energy and patient cardiac rhythm devices (Part 2)
7. Relate the dangers of surgical smoke and the importance of smoke evacuation (Part 3)
8. Describe the FUSE program and review the FUSE Certification Exam (Part 4)

Objectives	Content	Presenter
1. Identify fundamentals of electrosurgery	VI. Nomenclature in radiofrequency (RF) electrosurgery. VII. Physics of RF electrosurgery VIII. Functions of an electrosurgery generator ESU IX. Mechanisms of RF energy effects on cells and tissues. X. Differences between vaporization/cutting and desiccation/coagulation	Malcom Munro
2. Describe the integration of surgical energy and patient cardiac rhythm devices	IX. Identify patients with implanted devices that might be adversely affected by RF energy. X. Surgical devices that can cause electromagnetic interference (EMI). XI. Steps to determine how to use RF energy on a patient, in an elective situation or emergent situation, with an implanted electrical device. XII. Strategies to minimize electromagnetic interference (EMI) from RF energy on a Cardiac Implanted Electronic Device (CIED). XIII. Potential adverse effects of electromagnetic interference (EMI) on a Cardiac Implanted Electronic Device (CIED) during and after the use of RF. XIV. Elements needed for preoperative evaluation of a patient with a Cardiac Implanted Electronic Device (CIED). XV. Situations in which a magnet placement may be indicated for a patient with a Cardiac Implanted Electronic Device (CIED). XVI. Identify modifications that need to be made when monitoring a patient with the Cardiac Implanted Electronic Device (CIED).	Thomas Robinson
3. Describe FUSE and review contents of the FUSE certification exam.	III. Explanation of FUSE exam and certification IV. Audience participation/contest answering questions from the FUSE exam	Pascal Fuchshuber

OP07

A FUSE Magical Mystery Tour: What's Your Energy IQ?

Fuchshuber Pascal
USA

Brenda C. Ulmer, RN, MN, CNOR

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OBJECTIVES

9. Identify fundamentals of radiofrequency electrosurgery (Part 1)
10. Describe the integration of surgical energy and patient cardiac rhythm devices (Part 2)
11. Relate the dangers of surgical smoke and the importance of smoke evacuation (Part 3)
12. Describe the FUSE program and review the FUSE Certification Exam (Part 4)

Objectives	Content	Presenter
1. Identify fundamentals of electrosurgery	XI. Nomenclature in radiofrequency (RF) electrosurgery. XII. Physics of RF electrosurgery XIII. Functions of an electrosurgery	Malcom Munro

Objectives	Content	Presenter
2. Describe the integration of surgical energy and patient cardiac rhythm devices	generator ESU XIV. Mechanisms of RF energy effects on cells and tissues. XV. Differences between vaporization/cutting and desiccation/coagulation XVII. Identify patients with implanted devices that might be adversely affected by RF energy. XVIII. Surgical devices that can cause electromagnetic interference (EMI). XIX. Steps to determine how to use RF energy on a patient, in an elective situation or emergent situation, with an implanted electrical device. XX. Strategies to minimize electromagnetic interference (EMI) from RF energy on a Cardiac Implanted Electronic Device (CIED). XXI. Potential adverse effects of electromagnetic interference (EMI) on a Cardiac Implanted Electronic Device (CIED) during and after the use of RF. XXII. Elements needed for preoperative evaluation of a patient with a Cardiac Implanted Electronic Device (CIED). XXIII. Situations in which a magnet placement may be indicated for a patient with a Cardiac Implanted Electronic Device (CIED). XXIV. Identify modifications that need to be made when monitoring a patient with the Cardiac Implanted Electronic Device (CIED).	Thomas Robinson
3. Describe FUSE and review contents of the FUSE certification exam.	V. Explanation of FUSE exam and certification VI. Audience participation/contest answering questions from the FUSE exam	Pascal Fuchshuber

PARALLEL C1
CAN QUALITY PROMOTE SAFETY?

OP08

How operating room nurses can reduce errors in the process of surgical tissue management by combining procedures, computer and bar code technology

Stevens Marc
Belgium

Background: A mislabelled/unlabelled or lost surgical tissue specimen can negatively impact patient outcomes. It can cause additional procedures, wrong diagnoses or treatment and treatment delay. Therefore it is important to consider recommendations of safety-driven organizations such as the U.S. Association for periOperative Registered Nurse (AORN). These organizations are primarily concerned with establishing policies, procedures, competence and training of surgical team members. But even by applying these recommendations, specimen management remains prone to human errors.

Methodology: The objective of the current research was to reduce the number of human errors in specimen management. Together with the department of pathology, we mapped out the existent process, registered all incidents in each step and looked for the most reliable security measures. The process was defined and started from the planning of the operation until the specimen is accepted by the department of pathology. A before-after design was used to evaluate the number and type of incidents in each step, reported in our 'patient safety reporting system' by surgical team members and members of the department of pathology.

Clinical improvement: By combining computer and bar code technology, each step of the workflow was made visible and verifiable in our daily perioperative care. Without the proper number of specimens and identification some of these steps can no longer be taken. The non-delivery of tissue specimens is visualized on the computer screen which makes it possible to react immediately on potential errors.

Result and conclusion: We were able to exclude the majority of human errors, as indicated by our reporting system. By involving all stakeholders, we managed to secure this process. Using computer and bar code technology provides a significantly higher level of security compared to using procedures and training alone.

OP09

Device Related Burn Injuries Occurred in the Operating Rooms of a Health Group During the Period 2014-2016

Pamir Aksoy Aysen
Turkey

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Background: The operating room (OR) incorporates an increasingly complex array of equipment. Malfunction or misapplication of these devices can endanger the well-being of both the patient and the staff. The OR team should be familiar with any equipment that is used, but in particular, the principles of electrical devices must be thoroughly understood. As patient safety is the number-one priority for perioperative care, and keeping patients and staff members safe during the use of electrical devices is essential, the OR staff should incorporate a system of checks to prevent accidents [1, 2].

Skin burns in the operating room are due to different causes. Common causes of skin burns include (1) electrical (radio frequency, electro surgery etc.), (2) thermal (direct contact—heating pads), (3) chemical (skin preparation solutions etc.), and (4) mechanical (adhesive electrodes) [3, 4].

Methods: We reviewed all electrical device-related injuries occurred in our operating rooms between January-2014 and May-2016. The data derived from adverse event reports and the clinical quality indicators results that monthly reported to the OR administrators.

Results: During the period of January-2014 and May-2016, 193.902 patients had surgical operation in our institution. We encountered 20 device-related burn injuries, 15 of which were diathermy burns. Two of the burns were occurred in accordance with the use of patient warming blankets. Another two burns' cause was Magnetic Resonance Imaging used in neurosurgery. In one case the device was dental drill. The general rate of burn injuries was 0,01 %.

Conclusion: Electrical device-related injuries in the operating room are infrequent, but these injuries accepted as adverse events and OR team members are responsible to prevent patients from harm arising from the misuse of devices.

Keywords: electrical device, burn injuries, patient safety, operating room

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OP10

Promoting Patient Safety: Recognizing and Managing Intraoperative Distractions

Willis Kendra
Canada

Kendra Willis RN BScN & Sandy De Oliveira RN BScN, CNN (C)

Perioperative nurses complete tasks with a focused priority- keeping the patient safe and harm free throughout their surgery. Perioperative nurses' attention is often interrupted and drawn to more urgent tasks. This can result in omissions of actions or deviations from normal practice; ultimately resulting in adverse events (1). Most studies to date have examined the relationship between distractions and surgeons' performance (2).There is limited literature that explores the effects of distractions on perioperative nurse attention. Distractions that occur during critical moments of the intraoperative phase (i.e surgical counts and specimen management), are seldom studied.

Current understanding of the impact of distractions is being challenged in health care. It is imperative to research the manner in which we practice to improve patient outcomes. The purpose of this research study is to quantify and establish a baseline measurement of distractions affecting nursing tasks (surgical counts and specimen handling) during the intraoperative phase. The following research questions will be studied:

1) What are common distractions that affect nurses during surgical counts and specimen management?
2) How often do distractions occur during surgical counts and specimen management?
3) What effect do these observed distractions have on nurse attention during surgical counts and specimen management?

A Prospective Observational study design will be utilized. Data will be observed in 20 General and Thoracic Surgery cases at a hospital in Toronto. A Seven-point ordinal scale will be used to measure the level of observed interference the distractions have on the nurses' attention. Study findings will create awareness around the prevalence of distractions during critical moments in surgery. James T. Reason's System Centered approach to errors will be utilized as the theoretical framework (3). This data will be utilized to promote Standards of Practice dedicated to patient safety and provide a baseline against which improvements can be measured.

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OP11

Standard Operating Procedure: Specimen Collection

Haime Kathleen
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As perioperative nurses, we strive to provide the best care possible every day. Specimen analysis is an integral part of patient care in the operating room (OR) and errors in specimen management can have detrimental effects. According to the Association of periOperative Registered Nurses (AORN, 2016), 53% of errors in specimen management occur in the pre-analytical phases, 38% occur in the analytical phase, and 6% occur in the post-analytical phase (1). Not only can errors in pathology cause financial burdens due to unnecessary rework, extra steps, and longer hospital stays, but errors can potentially cause negative effects for patients (2). Although errors in specimen collection have been identified as an issue in the past and strategies have been implemented to rectify the number of errors, errors are continuing to occur. Recently, in Newfoundland and Labrador an investigation has been launched into a laboratory that incorrectly diagnosed the stages of 9 women who had breast cancer (3). All of these women were needlessly treated with an aggressive drug therapy that has a small percentage of side effects to the heart, lungs, and liver.

According to the Operating Room Nurses Association of Canada (2015) we are to follow the health care facility's policy of specimen collection and management (4), but currently, the University Health Network (UHN) policy is outdated and undergoing revision. The lack of guidelines that staff can follow allows for inconsistencies in practice. This presentation will outline the common errors made during the pre-analytic phase of specimen collection; the current standards for specimen management; and the steps taken to develop a standard operating procedure (SOP) to decrease these errors.

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OP12

Post-operative Compartment Syndrome: Can We Prevent It?

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Post operative Compartment Syndrome (CS) is a condition in which increased pressure within a limited space (Osteo-fascial in extremities) compromises the circulation and function of the tissues within that space after lengthy surgery.
A literature review on CS was conducted to determine risk factors and relevance to our cancer population. Retrospective review of 55,281 patient records through an IRB approved protocol was conducted to understand the scope of the problem and to identify risk factors such as patient's weight, gender and length of surgery.

This was an evidence-based practice project to reduce the rates of post operative CS.
The aim:

- Identify risk factors in our patient population
- Develop initiatives for prevention
- Detect early signs and symptoms of post operative CS
- Educate multidisciplinary team about risks & treatment

As a result of this evidence based nurse driven project, the following initiatives were implemented:

1. Identification of all high risk patients for CS through pre-operative screening
2. Collaboration with Nursing Informatics to develop alerts in electronic medical record for patients that meet high risk criteria for CS
3. Revision of positioning procedure
   Change of practice in positioning high risk patients
   Inclusion of Intra-operative "4 hour Positioning Time Out"
4. Development of positioning algorithm
5. Education & training of perioperative nursing staff, anesthesia provider and surgical team on positioning patients
6. Education on identification, detection and early treatment of CS
7. Development of CS Post operative Order set

Post-operative compartment syndrome is a rare but a life threatening complication after surgery that hasn't been addressed. This project changed practice in positioning patients and educated perioperative registered nurses and other staff to this debilitating surgical outcome and will help to prevent future cases. Prevention, early detection and prompt treatment are the key in averting this devastating post-operative complication.

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Abstract for oral presentation

OP13

Safety in our OR´s; A Swedish national project

Antoniadou Irini
Sweden

Lack of communication and collaboration in the continuity of patient care in surgical interventions leads to medical errors and requires changes in routines With the ambition to reduce patient injuries Patient insurance LÖF initiated in 2011 a national "*Project Safe abdominal surgery".* The project is implemented by the Swedish Surgical Society, the Swedish Society for anesthesia and intensive care, the Swedish Operating Room nurses association and several other professional organizations with the main aim to decrease the risk of health damage in surgical procedures in the abdomen. Additionally, also to identify strategies for reducing risks related to the interaction between surgery and anesthesia

Poor communication between surgical and anesthesia unit staff may put at risk patient safety. Some of the findings from this project suggested strategies to improve patient safety was e.g. a standardized national health declaration; consistent use of admission notes; same systems for documentation of medical information; weekly and daily scheduling of surgical programs; use of the WHO checklist; team communication during surgery in the OR; surgeons report to postoperative unit orally/written, multidisciplinary forums for evaluation of high- risk patients etc. Within the perioperative care procedures the Operating room nurse can contribute in many of the previous listed suggested strategies and support daily each patient for a good and safe care.

OP14

A new model of perioperative care

Pulkkinen Maria
Finland

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Background: Earlier research findings show that when a caring encounter is established where the nurse informs the patient about the perioperative process and its proceedings and educates the patient, a significant impact on postoperative pain and the recovery from surgery can be achieved (1,2,3,4). Also, anxiety increases the postoperative pain and slows down the recovery from surgery (5).

Focus of interest: To develop a new high quality caring model, that enhances continuity of care improving patient safety (6), patient satisfaction and job satisfaction of the perioperative nurses. This model emerges from the model of the perioperative dialogue (7,8).

Intervention: The one and same anesthesia nurse takes care of the patient during the entire perioperative process and even pays the patient a visit to the ward the day after surgery.

Clinical evaluation: a) The authors conducted earlier a pilot study, where the new perioperative model of caring was tested with patients (n=19) undergoing a hip or a knee replacement surgery under spinal anesthesia (9). The study findings showed that the patients experienced the new model of perioperative care as beneficial. They also experienced the emotional support as crucial. Thus, the new model influenced patient satisfaction, individual care and patient safety**.** The nurses' experienced, they had time caring for each patient in a satisfying way participating the patients' in their care. **b) clinical testing.** The encouraging results from the pilot aroused new research questions, which led to a new forthcoming research study. In this study the objective is to explore the effect of the new perioperative practice model on patient outcomes (satisfaction, surgery-related anxiety and quality of life), nursing outcomes (organizational engagement), and organization outcomes (timeline of surgical care process).

Implications for perioperative nursing: To provide all patients high class patient-centered and safe care.

Keywords: perioperative care, continuity, patient safety, nurse engagement

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OP15

Lean as a development force in clinical practice

Janhonen Maria
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Our department, Peijas Operating Department L, is a part of Helsinki University Hospital (HUCH), the biggest healthcare provider of Finland, with 23 hospitals and 22000 employees. We started in 1990 by performing day surgery procedures. Nowadays 55 % of our patients stay at the hospital 1–3 days after the surgery. Over the years the number of operations has gradually increased and was approximately 4500 in 2015. Main surgical specialities are orthopaedics and urology. We have eight operating theatres and a 20 bed recovery room as well as a patients' sitting room.
Our staff comprises 46 registered nurses, a nurse manager and 2 assistant nurse managers. An additional 3 nurses manage our scheduling. Auxiliary personnel, cleaning personnel and staff from the central sterilisation unit are important co-workers in our care processes. Nurses rotate by working in different specialities and roles as anaesthetic, circulating, scrub or post-anaesthesia care nurses. As a profession we have the obligation to give good nursing care for our patients. General ethical principles and ethical codes designed for our profession are guiding our daily practice.
As a health care provider we have given a promise to the patients and to our stakeholders: To give safe, quality and efficient care and to act effectively and productively. The basis of our nursing care is defined in a Professional Model in Nursing Care (HUS 2015). According to it our nursing care is patient centered, evidence based, safe, inter professional and collegial. The performance is based on our values: human equality, patient-centeredness, transparency, trust and mutual respect, creativity, innovation and high quality and effectiveness.
In nursing care our aim is to reach good outcomes. Our core mission as nurses is to recognize the patients' care needs, to plan, perform and evaluate our caring tasks. Our decisions concerning nursing interventions are based on evidence; which can be led from research or clinical expertise. It is of full importance to take into account patient's own preferences, opinions and experiences.
The basic concept of **lean management** system is based on Training within Industry -method and Toyota Production System. In addition to industry, it has later been successfully used by leading healthcare organizations worldwide to increase quality, safety, capacity, patient satisfaction, and cost effectiveness (Barnas and Adams 2014). Helsinki University Hospital has recently started to educate lean advisors and to use lean management methods.
We started a new lean project focused on issues related to the morning schedule of our surgical unit with 8 operation theatres using cross-functional teams, value stream analysis, A3, visual management, and daily huddles. The primary outcome measures were the first patient's arrival time in the operation room, starting time of first operation, and patient safety by incident reports. Here we describe whether this lean project also had effects on nursing intensity level measured by RAFAELA system (Frilund and Fagerström 2009). The results will be analyzed by March of 2017.

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OP16

Improved Operating Room Utilization

Laniado Iris
Israel

Iris Laniado, OR, MA; Eran Bar, Economist; Carmit Nadav, OR, MA

Background

Operating rooms are the heart of activity in hospitals and they have a clear influence on the quality of medicine, quality of services, wait times and the economic health of the hospital. Hospital management has always placed great emphasis on improved operating room utilization and has acted to improve this through adoption of new technologies. In 2013, the Israel Ministry of Health announced a program to measure and improve operating room utilization.

Objectives

The objective of the present study was to increase operating room utilization. Specifically, wait times to surgical procedures were targeted as a means to increase operating room utilization, increase hospital income and promote surgical team synergy.

Methods

A steering committee was appointed including the deputy director of the hospital, the hospital economist, industrial/managerial engineers, the chief anesthesiologist (who also serves as operating room manager) and the operating room head nurse. MSD, a company specializing in improving operating room utilization through the OR-E method, was consulted. Department chairs of the various surgical departments were updated regarding study objectives, and their cooperation was elicited in elucidating the current operating room situation for a period of three weeks. Data were collected by the nursing staff. The following measures were recorded: time of patient entry into the operating room; operation start time; operation end time; time of arrival at the PACU; and time to operating room entry of the next consecutive patients. Three time periods were assessed: the beginning of the surgical day; wait time between surgeries; time to the conclusion of the surgical day. Additionally, the operating room schedule was compared to the actual performance of operations throughout the day.

Results

A number of delays associated with operating room activities were identified including those involving patient exit from the operating room; wait for the cleaning crew; cleaning times; wait for operating room; wait for operating team after patient entry to operating room; room preparation after the patient is already in the operating room; prolonged waking time; and wait time for orderlies.

Conclusions and Recommendations

We recommend that the operation room develop a strategic plan including a dedicated individual responsible for its execution. We further recommend that a quality audit be conducted quarterly, that a scheduling system be implemented for the long term, and that scheduling patterns be improved in the short term. Finally, inventory and logistical procedures should be reviewed.

PARALLEL B2
THE STAFF AS THE TARGET

OP17

Chain of movements

Marquez Cisneros Linda
The Netherlands

MCL hospital, the Netherlands

Moving is something we do without thinking of it. It is an automatic system in our body. But what if the way we move is not correct? How do we notice this and how we can change it? I am going to tell you something about move without pain, and going to let you feel the automatic movement patterns. Some things will feel unnatural, but not all the unnatural feelings are wrong. I will explain what are movement chains and how we can have a positive effect on it. And why is it so important?
We all know we have to work longer and work in the hospital is a heavy job.
I hope to see you all at my presentation and give you some ideas about rebuild the functionality of the movement chain for stay longer strong and move without pain.

OP18

Attitudes for Caregiving Roles of Nursing Students Who Were Doing Internship of Surgical Nursing Course

Topcu Sacide
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Background
Caregivng role is basis of the nursing roles. Nurses are independent when while they are performing the caregiver roles and this role make nursing a profession.[1] In order to build independence and competent professional skills of the nursing students learning and practicing clinical skills helps them and in this process, they develop attitudes for caregiving roles of their profession.[2] Whereas, developing attitudes for caregiving roles can be affected by various factors such as efficient guidance of the teachers and the nurses in clinical area, perspective and affection to the nursing and many other factors.[3,4,5]

Aim
The aim of this study was determine attitudes for caregiving roles of nursing students and factors affecting attitudes.

Method
The study was conducted with 73 nursing students who had been continuing nursing education in an university in Nortwestern Turkey. All of the students were continuing surgical nursing course and doing internship in the surgical clinics. Data were gathered using a Questionnaire Form and Attitude Scale for Nurses in Caregiving Roles (ASNCR) developed by Koçak et al. (2014). Data analysis was performed in SPSS 16.0 and frequency, percentage, mean, standard deviation, student t-test and variance analysis were used for data assessment.

Findings
In this study, it was found that mean age of the nursing students was 20.88±2.81, most of the nurses were female (89%), 60.3% of them choosed nursing school willingly and 47.9% of them reported that they would work a nurse foundly. In the clinical experiences, 67.1% of the students believed that guidance of the nurse educators was effective, 72.6% of them thought that nurses working surgical clinics were not qualified guides for surgical nursing. It was found that mean score of ASNCR was 3.76±0.89, attitude subscale related to the nurses' roles about elimination of the selfcare needs and consulting score was 3.77±0.91, attitude subscale related to the nurses' roles about protection of the individuals and being respectful their rights score was 3.80±0.96 and attitude subscale related to the nurses' roles about treatment process score was 3.72±0.79. It was found a statistically significant relationship between positive feelings of the the nursing students towards their profession and their attitudes for caregiving roles $p<0.05$). Also, it was found that efficient guidance of the nurse educators in the surgical clinics affected attitudes for caregiving roles of nursing students ($p<0.05$).

Conclusions
This study demonstrated that the attitudes for caregiving roles of the nursing students who were continuing surgical nursing course and doing internship surgical units was good level and efficient guidance of the nurse educators and affection of the nursing profession of the students had positive effects on these attitudes. Especially, in the surgical units, patients care needs are more than many other clinics and so attitudes of the nursing students for caregiving roles are occured and formed. Nurse educators and nurses should be a efficient guide for the nursing students who are doing internship in the surgical clinics, they should make an effort in order to maket the nursing profession endeared by the nursing students and they should assess and improve their

attitudes for caregiving roles. Further researchs that will be performed to determine the other factors that affected attitudes of the nursing students for caregiving roles and the relation between attitudes of the nursing students for caregiving roles and clinical area in which they are doing internship are recommended.

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OP19

Surgical Cost Awareness Savings: Combining Technology and the OR Team for a Winning Outcome

Watson Wendy
Canada

The University Health Network in Toronto Canada initiated an OR Supply chain technology transformation project throughout their 40 operating rooms and two sites. The goal was to achieve clinical time efficiencies, patient safety, and surgeon cost data for improved decision making and savings. A very committed inter-disciplinary team worked collaboratively to implement technology to move nurses closer to the patient and away from managing supplies. The old pen and paper world was replaced with a fully integrated system that automated ordering, consignment implant tracking, integration with the contract item master and clinical charting system. All of the background technology and integration reduced the time and steps required for the Nurse to select inventory, clinically chart and have the supplies reordered automatically. Several lean mapping exercises were undertaken to document the process improvements. The results were improved labor and service efficiencies, improved patient safety, increased implant accuracy and traceability. Financial benefits were realized in hard and soft savings resulting in 14 Million over 5 years. The big win was sustainable real- time surgeon procedure cost data for supply transparency and informed product selection. The biggest culture change is that Surgeons and Nurses now are much more cost aware and able to make better choices to promote improved savings and outcomes. Surgeons have had a positive reaction to sharing procedure cost data and have requested it to be “un-blinded” sharing surgeon names to generate conversations. Some early wins have been product selection savings that have increased the number of patients treated without reducing the quality of care. The Impact of this new OR supply cost transparency is the start of an innovative way to contribute to managing the OR by giving surgeons the information they need.

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OP20

Surgical count implementations in the operating rooms: An example from Turkey

Candas Bahar
Turkey

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Aim: The study was undertaken to determine the current implementations related to instruments and sponges counts in the operating rooms in Turkey.
Method: This descriptive study was carried out with 261 operating room nurses. The data collection tool was a questionnaire which was designed on the Google Drive application using the internet. Thereafter its internet link was distributed throughout Turkey using nursing, surgical nursing and operating room nursing social media websites; the answers were gathered in the same way.
Results: Ninety-five percent of participants stated that instruments and sponges were usually counted by the scrub nurses (88.5). Sponges (97.7%), pads (95.4%), tampons (89.2%), surgical instruments (88.1%) and needles (70.4%) were the items which were usually counted. According to 81.6% of the nurses, a written count protocol exists for their hospitals, however, they noted there was a significant difference in implementation among the various institutions (p=0.026). While 49.8% of participants stated that the count before surgery was done by nurses, 23.7% reported that the count was performed by operating room employees. Furthermore, 81.2% of the nurses noted that if the scrub nurses were replaced during surgery, the surgical count would be repeated. Nurses stated that last count was usually done just before applying skin sutures (72.7%), and if there were a problem with the count, radiological imaging would be done (73.5%) and the count irregularity would be signed by staff (31.0%).
Conclusion: Our results demonstrated that surgical counts were generally done by the scrub nurses. In addition, although most of the hospitals have a count protocol, a serious issue concerns the use of unprofessional hospital employees who carry out this task, thus jeopardizing patient safety to be operating room employess join the count are other problems related to surgical count.
The implications for perioperative nursing: This study enabled us to obtain information concerning surgical count protocol in the operating rooms in Turkey. Since only limited research about surgical counts in our country has been done, this study sheds more light on the changes which need to be made.
Key words: Operating room, patient safety, nursing, medical error, retained surgical item.

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OP21

Frequency and Risk Factors of Venous Thromboembolism in Postoperative Patients: a Retrospective Review

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Aim: To retrospectively review frequency and risk factors of venous thromboembolism in postoperative patients.

Material and Methods: This is a descriptive, cross-sectional, retrospective study. The study population included 217.354 patients having surgery in two university hospitals and one education and research hospital in İzmir, Turkey, between 2010 and 2015. Of 217.354 patients, 996 were found to have a diagnosis of venous thromboembolism based on hospital records. Of 996 patients, 123 had postoperative venous thromboembolism based on data from discharge, consultation and diagnostic reports and were included into the sample. Data about risk factors were collected from hospital records by using a patient descriptive characteristics form.

Results: The incidence of venous thromboembolism in postoperative patients was 0.5/1000. The mean age of the patients was 60.22±18.56 years. Of 123 patients, 51.20% were male, 30.90% were smokers and 46.30% had an accompanying disease. Of all the patients, 64.20% had major surgery, 27.60% had diagnosis of cancer and 44.70% had a disease causing high risk for venous thromboembolism. Twenty-three point sixty percent of the patients had cardiovascular surgery, 25.20% had general surgery and 29.30% had orthopedic surgery. The patients most frequently had venous thromboembolism following hip fractures. The mean time to develop thromboembolism was 9.76 ± 5.47 days. Although treatment with anticoagulants, 20% of the patients had venous thromboembolism.

Conclusion: There are limited data about surgery related venous thromboembolism in the literature and its incidence is 1.6/1000 for all age groups. Consistent with the literature, this study revealed quite a high rate of venous thromboembolism in patients having long hospital stay and those having major surgery like total knee prosthesis and abdominal surgery. Also, cancer patients were found to have a high risk of venous thromboembolism (1-5). The limitation of this study is that some data were missing in the hospital records.

Key Words: Venous Thromboembolism, Postoperative Patients, Retrospective Review

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OP22

PIT Model (Presence, Interpretations and Tools) patients and teams in the centre - how to get it?

Edry Yael
Israel

A Project to improve the quality, safety and treatment a patient in Perioperative division.

Key words: vision, patient, team, presence, interpretation, tools
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Background:
As part of promoting the concept of "human interest" according to Rambam Health Care Campus, and the vision whereby the hospital stuff and the patients at the center of action, we developed new model "PIT" –presence, Interpretations and Tools a unique model created for perioperative division.
The purpose of the model to promote quality of care and service, keep patient safety, to determine a uniform policy of information and communication between team members and patients and between teams during the perioperative faze, to change the perceptions of the team treating the patient and understanding patient and team's needs.
The project mentor is Yifat Mizrahi, organizational psychologist who works with nurse's teams for many years.
In order to achieve the goal, the project leaders have to connect with nursing team's, patients and their families, meet with them and listen to their voices.
Give the nursing teams' tools they need, using a soft tool and assertive on the training process.
The process mechanism:

- Establishing a working leading group.
- Preparation and training the working Group, present and explain them the model.
- Information retrieval based on structured questions from patients and families in various stations.
- Analysis of the questionnaires and present to the group.
- Divisional workshop day– where the model is displayed to all teams, split and work in small groups so the team members will be active and involved in the final products, the groups will create slogans, check lists, lists of do and not to do, setting uniform language, set a uniform way to deliver information.
- Analyze the material from the workshop day, create process and check lists.
- Present the products to the nursing teams
- Assimilation process of 3 months.
- Repeating questionnaire for patients and family after six months.
- Ongoing control.

Conclusion: The nursing team members must take part and have impact, be involved in every part and decision making in the project, otherwise we couldn't achieve our previous goals.

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OP23

Perceptions of Patient Safety Culture in Surgical Nurses

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Background: Nurses working at surgical units have a crucial role in the establishment of a safe and qualified care for the patients. Nurses must have a critical perspective on the issue of patient safety to offer safe a care (1,2).
Objective: To determine the patient safety culture among nurses working at surgical units
Methods: This descriptive study was conducted at surgical units of an education and research hospital in Turkey. Study was performed between 15 May and 15 June 2016. Two hundred and seventeen nurses working at surgical units (operating room, surgical clinics, intensive care unit, and emergency department) were included in the study. Data were collected through a sociodemographic information form and Patient Safety Culture Scale (PSCS). Total scores of scale change between the range 1-4 and the scale of the average scores are up to 4 means positive patıent safety culture (3). Percentage distribution and t-test were used to analyze the data.
Results: The average point of the patient safety culture scale was found 2.64 ±0.41 (range: 1.16 - 3.63). When the subgroups of scale were analyzed, it was determined that highest score for the dimension “staff behavior” was 3.71±0.93. The lowest score for the dimension “unexpected events” were found as 2.60±0.53. 83.9% of the participants reported that they received training on patient safety. It was found significant difference between received training and the patient safety culture scale total scores ($p<0.001$). A great majority of the nurses (82.5%) indicated that they never documented a case report in the past year.
Conclusion: Awareness of the nurses regarding patient safety should be raised and their related knowledge should be kept up-to-date through more frequent in-service trainings.
Key words: Patient safety; Patient Safety Culture; Surgical nurses.

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PARALLEL A3
CHECKLIST - A WAY TO IMPROVE THE COMMUNICATION

OP24

Optimizing communication during patient HandOver using the SBAR technique: An observational study based on an analysis of 738 check-lists

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Abstract
The importance of improving communication during patient handover/transfer procedures taking place between health care professionals working for different facilities when a patient is moved to a different ward, unit, or service has been receiving growing attention and is an international concern. The World Health Organization (WHO) launched the World Alliance for Patient Safety in Washington DC in 2007, which aimed to ensure that relevant information regarding a patient is communicated from one caregiver to all the others involved in patient care.
The aim study was to evaluate the completeness and the reliability of information transmitted between the staff of an operating room and other teams both at the time a patient was entering and at the time he/she was exiting the operating room utilizing a check-list created using the Situation, Background, Assessment and Recommendation (SBAR). The nursing staff had noted that information regarding patients was often incomplete; in particular, the patient's characteristics, the presence of comorbidities, and a list of the patient's personal objects was often lacking or incomplete and this often led to delays in planning patient care. The investigation was carried out by analyzing patient handovers carried out in that surgical unit between 2005 and 2014, a period during which activity per year increased from 1750 to 2332. There were 3216 admittances in 2014 with an average length of hospital that stay fell from 6.9 to 5.9 days. Analysis uncovered a rising turnover confirming the importance of improving the communication regarding patients. 737 check-lists focusing on the 4 variables specified by the SBAR technique filled out by operating room staff between June and November 2015 were analyzed.
Situation, **Background**, **Assessment, Recommendation:** Analysis, showed that improved communication made possible to overcome lack of documents even at the pre-admittance stage, to eliminate delays in the activities, and to provide complete personalized assistance with a precise, focused transfer of information. All the nurses involved in it were asked to fill out an anonymous questionnaire. Data analysis showed that 92% of the 60 nurses considered the check-list of primary importance in improving communication and, as a result, the quality of their work.

Key words: check-list, hospital stay, Situation, Background, Assessment, Recommendation (SBAR), communication

OP25

Passing The Baton of information to ensure safe patient care: Implementation and evaluation of a knowledge translation intervention to improve team communications using the Surgical Safety Checklist

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Background Compliance with surgical safety checklists has been associated with improvements in clinical processes such as antibiotic use, correct site marking and overall safety procedures. Yet, proper execution has been difficult to achieve. . Objectives The overall aim of this knowledge translation (KT) research program was to evaluate the feasibility and acceptability of a multifaceted intervention tailored to promote surgical teams' use of consistent and timely communication in surgery, guided by the Surgical Safety Checklist (SSC).
Method The following theoretical and empirical approaches were used to underpin the KT program: 1) realist synthesis methodology to explain the implementation and use of checklists in surgery; 2) barriers analysis using observations and interviews; and 3) process and outcome evaluation. .
Using an integrated approach, the Pass The Baton intervention was developed with clinical stakeholders. The KT strategies implemented to support Pass The Baton center on: social influence (opinion leaders, change champions); audit and feedback (information, education, knowledge brokers); and, reinforcement (prompts and reminders).
Results The greatest barrier to checklist use was workflow. All KT strategies were implemented consistently. Following implementation, we observed improvements in checklist participation and compliance ranging from 70-94% across teams. Interviews revealed that implementation was feasible and acceptable.

OP26

A ticket to ride is equally important as the Safe Surgery Checklist

Peeters Peter
Belgium

Every hospital tries to ensure safe surgery. Many of them use the Safe Surgery Checklist (SSC) in the operation room. But do we need to wait until we use this SSC to know that the patient is well prepared for surgery. The problem is that there's still a possibility that the patient enters the operation room, even though the surgery has got to be cancelled ore moved at that moment for different reasons as incomplete preoperative examination, not sober…There is a direct cost: surgery cancellation, cost per hour, operating theatre time, personnel costs. Indirect cost as these are considerably more difficult to measure: they include early return of the patient and the caregivers, transport and meal cost for family, wasting time of nurses. A good management of a pre-admission unit is important to ensure successful implementation of operational policy and day-to-day running of the Operation Room. A well-prepared patient (as history, a physical examination and preoperative assessment. Lab testing, EKG, X-Ray may be required based on the individual needs in preparation for the surgery) prevents delaying the surgery. 48 Hours before the surgery, the pre-admission unit checks whether the investigations have taken place. When there's no confirmation the surgery got postponed. The day of surgery itself, the surgeon, the anaesthetist and the nurse must confirm, on the ticket to ride, that the patient is ready for his operation. Wherever the patient enters the operation room, the surgery will get started with great certainty.

OP27

Emergency cesarian section simulation- Multiprofessional training in undergraduate nursing education

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Introduction

The WHO Surgical Safety Checklist (1) was developed to decrease errors and adverse events, increase teamwork and improve communication in surgery. Previous studies have demonstrated that communication plays a significant role in all aspects of errors (2). Joint learning by practitioners and/or students promotes shared practice. An important part of the shared practice is communication, which can be trained successfully in multiprofessional simulations (3). Realistic full-scale simulations improve interprofessional learning (4, 5). Simulation of different procedures enhance the opportunity of skill transfer from learning environment to clinical practice and allow practice of technical skills without the risk of causing harm to a real patient (2).

Methods

Multiprofessional emergency caesarian section simulation education (MECSSE) started 2011 in the Center of Medical Expertise in Central Finland Health Care District together with JAMK University of Applied Sciences (JAMK UAS). The learning outcomes have been studied during these simulations. The aim of the study was to investigate the effects of the MECSSE to the technical and non-technical skills among nursing students. The data was collected between 2012 and 2016 from nursing students (N=124). They filled the questionnaire before and immediately after the MECSSE. The 5-hour full-scale simulation education consists of theoretical lecture, introduction of the method and two full-scale simulations with debriefings. The participants were nursing and midwife students, anesthesiologists, gynecologists, pediatrics, medical doctor residents, midwifes, registered nurses, nurse educators and simulation technicians. The manikins were Laerdal SimMom and Erler Zimmer baby. Statistical analyses were performed with SPSS 23.0 (IBM Corp. Armonk, NY, USA).

Results

The self-assessment of the nursing students showed that their knowledge, skills and attitude improved remarkably. Furthermore, the results demonstrate that both technical and non-technical skills improved statistically significant ($p<0.001$). Most of the students perceived, that the simulated patient case was realistic and the simulation practice was useful for them.

Conclusion

All the measured variables of the technical and non-technical skills improved after MECSSE. The 5-hour full-scale MECSSE is an effective way to gain confidence in perioperative nursing of the emergency caesarian section patient.

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OP28

The effect of using gel bed during the post -operative period on the development of pressure Ulcer in the patients undergoing total hip replacement surgery

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The aim of this quasi-experimental study is to depict the effect of using gel bed during the postoperative period on the development of pressure ulcer undergoing total hip replacement surgery. Sample of the study was consisted of 80 patients; 40 in experimental group and 40 in control group, July 2015 -April 2016 at Adnan Menderes University Hospital in Orthopedic Surgery Operating Room- Orthopedic Clinic.

While the gel position pad covering standard operating table was being used for the patients in the experimental group during the total hip replacement surgery, standard operating table was used for the patients in the control group. Data Collection Form including the socio-demographic characteristics of the patients and Braden's Pressure Ulcer Risk Assessment Scale were used in the collection of the data. According the results, pressure ulcer prevalence was 45% in the reanimation unit after the operation. On the third day after the operation, the pressure ulcer prevalence was found to be 25%. It was identified that 1. Stage pressure ulcer developed in the gluteal region in the patients whom pressure ulcer developed .It was determined that pressure ulcer prevalence was 60% in the patients that were in the control group after the operation in the reanimation unit and it was 30% in the patients that were in the experimental group. On third day after the operation, the pressure ulcer prevalence was found to be 12% in the control group and 8% in the experimental group. It was determined that there was a significant relationship between the development of pressure ulcer in the control and experimental group patients after the operation in the reanimation unit and age, hospitalization duration , the type of anesthesia, anemia variable.

It was concluded that pressure ulcer development in the reanimation unit in the operation, using gel bed reduced the development of pressure ulcer.

Key Words: Pressure Ulcer, Total Hip Replacement, Operative Period Patient Care

OP29

The patient´s experience of amputation due to peripheral arterial disease

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BACKGROUND

Every year more than 1 million limb amputations are performed globally and the main cause is vascular disease. As an amputation has a large impact on the patient's quality of life (1), it is important that the health care providers are able to offer relevant support during the patient's decision- and rehabilitation phase. There is a lack of knowledge of what support the patients' request (2, 3).

PURPOSE OF THE STUDY

The aim of this study was to describe the patient's experience of an amputation due to peripheral arterial disease.

METHODOLOGY

Thirteen interviews, analysed with content analysis, were performed with patients who had undergone a lower limb amputation at tibia-, knee- or femoral level due to peripheral arterial disease.

RESULTS

Preliminary result showed that the patients' felt abandoned during the acute phase. They experienced that they were not participating within the decision and they felt an absence of interest from the health care providers after the amputation. The participants also had a lack of knowledge of the process coming after the amputation. Despite that, the patients felt generally satisfied with the amputation decision, above all, they experienced a relief to be free of pain.

IMPLICATIONS

The health care providers need improve their ability to involve the patients and to individualize the care. There are needs for developing a care plan enabling the patient to be prepared for the whole process after the amputation. In some cases the decision to amputate is perhaps something to discuss earlier in the process to decrease unnecessary suffering.

KEY WORDS

Peripheral arterial disease, lower limb amputation, patient experience, qualitative study

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OP30

Improving your procedure by implementing Fast Track surgery avoids death from cancer

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Key words: Fast Track surgery, Metabolic surgery, OR management

As operating room nurse manager at Erasme Hospital, the academic hospital of the Free University of Brussels, Belgium, I was in charge to increase the availability of our OR to perform oncologic surgery. As the OR occupation was maximal and no possibilities to build new OR, we decided to reduce the allocation time of routine surgeries. We therefore studied the feasibility of a new Fast Track organizational model applied to the bariatric surgery and the results we could expect when constricting those activities in order to release more time slots.
This presentation aims to describe the actions of a multidisciplinary working group including nurses from OR and PACU, surgeons and anesthesiologists formed in order to achieve a locally adapted version of this new organization.
First, we observed the practice of a Dutch reference center. We then analyzed and determined what could be put into our own practice, or had to undergo adaptation to match the local uses and the differences we did not want to keep.
Specific new working procedures and new nursing techniques were developed in the operating theater and the surrounding departments to finally lead to a test day.
Two observers were only present to record the different stages of this day and their results were presented and discussed in the working group. From this the implementation of a new organizational model has finally saved time and allowed us to achieve our objectives by releasing 16 hours of operating room per month allocated to semi urgent oncologic surgery. Furthermore, we also found an improvement in the quality of work of all stakeholders related to a better division of labor and greater cohesion around a common and clearly stated goal.

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OP31

Effect of an active self-warming blanket in pre- and postoperative period in patients undergoing lumbar surgery

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Introduction

Surgical patients who suffer from inadvertent hypothermia (Temp <36°C) are more at risk for wound infections, cardiac complications and blood transfusions.(1) Active prewarming is recommended in the prevention of hypothermia. New devices must be tested before implementing as an evidence based approach in the prevention of hypothermia.

Aim

The aim of this study was to evaluate the effect of an active self-warming blanket used in the pre- and postoperative period on core temperature in patients undergoing lumbar surgery under general anesthesia.

Methods

Fifty-four patients undergoing lumbar surgery were randomized to receive standard care (n=28) or an active self-warming blanket (n=26) in the pre- and postoperative period. Tympanic core temperature and vital parameters were measured preoperative at admission to operating complex, postoperative at admission to recovery, 30 minutes later and before leaving recovery. Mixed model was used for statistical analysis.

Results

The mean core temperature preoperative was 36.4°C and no patient had hypothermia. Postoperative the mean core temperature decreased to 35.7°C with 70% of patients hypothermic. Before leaving Post-Anesthesia-Care-Unit, the temperature increased to 36.2°C with 29% of the patients hypothermic. No significant difference (p=0.707) was found in the pattern of core temperature between control and intervention group. Neither in the pattern of blood pressure (p=0.458), pulse (p=0.136), oxygen saturation (p=0.174) and thermal comfort (p=450).

Implications for perioperative nursing

The prevalence of hypothermia in surgical patients undergoing lumbar surgery is high. Despite other studies have shown effect from active prewarming on core temperature, no effect was found. If active prewarming will be used in the prevention of hypothermia it's recommended to implement it in all stages of surgery.

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Keywords

Hypothermia – lumbar surgery – active prewarming

OP32

Fast from food but not clear fluids before anaesthesia and sedation

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Key words. Medication management. Patient controlled analgesia, serious incident, system analysis for investigating incident, medical equipment management, Findings and recommendations.

The presenter will outline a medication management incident involving a PCA (patient controlled analgesia) pump which resulted in patient harm.

The presenter will then outline the immediate actions taken, the systems analysis used in the investigation of the incident, the findings, the learning, the recommendations and resultant changes in practice.

A key element in the development of a robust governance structure in an organisation is the ability of that organisation to learn from adverse events/incidents, near misses and complaints. Systems analysis is generally accepted as the most effective tool for the investigation of incidents. Taylor-Adams et al (2006) describes systems analysis as the process used to ensure a comprehensive and thoughtful investigation of an incident, going beyond the more usual identification of fault and blame. They are clear that the approach does not supplant clinical expertise or deny the importance of the reflections of the individual clinicians on the incident. Rather the aim is to utilise clinical experience and expertise to the fullest extent.

The systems analysis includes six steps

1 Organising the investigation and gathering the data,
2. Determine the incident chronology
3. Identify the key causal findings.
4. Identify the contributory factors related to the key causal factors and incidental findings.
5. Make recommendations that will reduce risk and improve quality and safety
6. Write the investigation report.

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OP33

Patients are fasting for too long

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Introduction. Several articles and studies have previously demonstrated that patients are fasting for a long period of time exceeding the guidelines recommended by the Capital Region of Denmark. This study was initiated in order to examine whether the assumption that patients were subjected to prolonged fasting compared with the recommended guidelines was true. The project also wanted to further examine whether patients were offered various types of liquids up until two hours before operation, according to the recommendations.

Aims and objectives. The aims and objectives of the study were focused on four specific selected groups of patients – including children and patients with wounds that demanded debridement. The purpose was to measure in time, for how long they were fasting during a randomly selected period of time. There was also a specific focus on patients with wounds that demanded debridement, and how they were affected by prolonged fasting.

Method. The project was designed with both qualitative and quantitative studies by using interviews and questionnaires with the group of patients included in the project.

Conclusion. We concluded that the specific period of fasting exceeded the recommended guidelines, and we also found that prolonged fasting severely influenced all groups of patients, particularly patients with wounds that demanded debridement. Patients in general were not offered liquids up to two hours before operation as recommended.
After having evaluated the results from the study it was decided to set up a cross-sectional working group in order to point out specific focus areas, e.g. improved communication between wards and operation theatre, implementation of new routines for giving patients liquids and nutrition, and a specific operation theatre for patients demanding debridement.

Key words: Fasting, pre-op waiting time, nutrition, complications.

OP34

Possible ways of the extension of preoperative preparations with the antibacterial shower in University Hospital Brno

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Keywords
Surgical site infection, antibacterial shower

Introduction

Ensuring of complex preoperative preparation for surgical intervention is an important preventive measure against infection in surgical site – surgical site infection (SSI). The purpose of this study is to prove efficiency of medical remedy with polyhexanid in decolonization of skin of the whole body.

Occurrence of SSI is variable depending on the type of surgical intervention with an average rate of 1 – 5 % [1]. Local skin antibacterialremedies enable to decrease microbial flora beforesurgical intervention up to 9 times [2]. The purpose of this prospective study is to compare infection occurrence with and without the use of the antiseptic remedy in two different departments.

Research group and methodology

Recruitment of patients takes place in two departments of University Hospital Brno (FN Brno) from 1 Aprilto 30 June 2016 (with the possibility of prolongation to fulfil necessary number of patients). The total of 80 patients will be put in a randomized study. According to surgical branches they will be divided in two parts. In both departments decolonization will be carried out by the tested remedy on 20 patients and bysoap without antimicrobial component on other 20 patients. Before the first decolonization and after the second decolonization bacterial smears will be taken from the site of planned surgical cut. Involved surgical interventions are total endoprosthesis (TEP) of hip joint and abdominoplastics.

Results

First results will be processed one month after carrying out the last abdominoplastics. Results will be assessed one year after carrying out the last TEP of hip joint.

Conclusion

According to the results it will be decided about implementation of the tested remedy in all surgical departments of FN Brno.

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OP35

The effect of anxiety on the postoperative outcome in relation to demographic biochemical and hematological parameters

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Introduction: A surgical procedure can be classified as a traumatic event. Preoperative anxiety is an unpleasant state of tension that results from a patient's doubts or fears before an operation. Excessive anxiety is associated with unfavorable postoperative physiological responses.
The aim of this study was to examine the correlation of severity of anxiety symptoms and stress as a permanent personality trait(trait anxiety) with the postoperative outcomes.
Methods: Perspective correlation study was performed, a total of 130 adults (48% females and 52% males age mean 62,35±20,433) participated in the survey from Tripolis and Sparta, Greece. Biochemical and hematological analyses were performed at pre and post-surgery. The psychological evaluation included Hamilton Anxiety Rating score(HAS) and State-Trait Anxiety Inventory(STAI).
Results: According to the psychological evaluation the majority of the patients indicates mild anxiety severity. Both psychological scores (STAI and HAS) shown increased anxiety(p=0,002) previous to programed surgery in comparison to suddenly surgery. Positive correlation was found between age and STAI(r=0,420;p<0,001) and HAS(r=0,313;p<0,001). Marital status affects HAS(p=0,001) with widowers having the highest HAS score. STAI score was positively correlated with the number of children (p=0,004) and negatively correlated with the educational level (p=<0,001). Both psychological scores (STAI and HAS) were positively correlated with the employment status (p=0,006 and p=0,001 respectively) with retired persons having higher levels of anxiety. Concerning the hematological markers both STAI and HAS scores were negatively correlated with the platelet accounts before and after surgery(r=-0,175; p=0,048 and r=-0,176;p=0,045, respectively). HAS score was positively related to post-operative γ-GT(p=0,0025) and SGOT(p=0,005).
Conclusion: Preoperative anxiety in adults undergoing surgery was found to affect negatively the platelet account and the liver function. Changes in platelet could potentially be mediated through serotonergic signaling reflecting biochemical changes that occur in the brain when different mental conditions occur. Early recognition of preoperative anxiety is necessary for appropriate interventions.

PARALLEL A4
DIFFERENT PERSPECTIVES ON THE PERIOPERATIVE NURSING EDUCATION

OP36

Qualitative study of implementation competence cards for newly employed unexperienced nurses in the operation theatre

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Denmark

A qualitative study from 2016, performed by the Educational Committee for Theatre Nursing in the Capital Region, Denmark, shows, how newly employed theatre nurses, supervisors, and nursing managers have perceived, implemented, and adopted the competence cards into daily practice.

Introduction

In 2012, 10 competence cards, describing basic operating room nursing skills, were designed. The competence cards were developed and enrolled from the Committee to enhance similarity and ensure systematic education to newly employed nurses in the region.

In each card three different issues of the basic nurse competences are to be uncovered during a period of observation by a supervisor and examination of the nurse´s knowledge, skills and reflection.

The aim

The study uncovers how the nurse managers, supervisors, and newly employed unexperienced nurses in the OR perceive the implementation and the value of the Regional competency programme.

The study focus on:

- How the unexperienced OR nurses convert theoretical knowledge and skills to real life situations in the OR and
- How the concrete framework and competence card parameters helps to ensure a successful implementation and a positive culture of learning assessment in the OR

Methods

A conduction of two explorative semi-structured focus group interviews with 8 nurse managers, supervisors, and newly employed OR nurses primo March 2016 were designed and carried out.

Results

- The professional discussions are now part of the nurses' daily practices
- The implementation process has been differently performed in the OR departments in the region
- It varies from each department how the examination of the competence cards are carried out
- Management has great influence on the success of the implementation

Conclusion

The knowledge and skills achieved by the competence cards for unexperienced nurses do have an impact on the theatre nurses performance in the operating theatre to the benefit for patient safety.

The results of the focus group interviews show that the concept competency cards enhances systematic education which ensures that newly employed theatre nurses gain the essential competencies.

Perspectives

The results will be very useful in facilitating smooth integration of new competency development programmes to follow.

Further development of the concept and focus at implementation programmes.

Key words: Competence cards for newly employed unexperienced nurses in the operation theatre
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OP37

Educational process of the perioperative nurses in the Czech Republic

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Keywords
Perioperative care, perioperative nurse, education, safety, quality

Introduction

Properly trained perioperative nurses with a comprehensive understanding of the surgical environment are essential for the successful performance of the entire surgical team. The harmonization of the surgical theatre including the highest level of dedication is imperative to the best possible patient outcome. Recognizing this, the Czech Republic and healthcare management place a high priority on the continuing education of its perioperative nurses to assure safety of the surgical team and patients.

Research group and methodology

This presentation describes comprehensive activities designed to motivate operating room workers to seek additional education and experience. We will describe the entire perioperative nurse education in the Czech Republic starting from the selection process to the operating room orientation. The main components of the educational process include: adaptation, supervision, continuing education, specialization studies and e-learning. Provided also in this program is the preparation of educational materials including videos.

Results

The authors recognized the inherent hazards and safety issues associated with the increasingly technical surgical environment and counter this with a call for nursing care improvements. Thereby the authors were prompted to prepare a comprehensive educational program. The second goal was to test this educational program in the field and evaluate its effects. This new educational program was put into trial September 2015 to be evaluated after one year.

Conclusion

Based on the results, the authors are expecting to develop conclusions and suggestions related to perioperative nursing education. The implementation of these principles are expected to improve the patient safety in the OR and post-operative recovery.

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ZÍTKOVÁ M., POKORNÁ A., MIČUDOVÁ E. *Vedení nových pracovníků v ošetřovatelské praxi pro staniční a vrchní sestry" (Leading new workers in nursing care for head nurses),* 1. vyd. Praha: Grada, 2015. 68 s. ISBN 978-80-247-5094-1 keeping new workers in nursing

OP38

Newly graduated perioperative nurses

Fagerdahl Ann-Mari
Sweden

Background
To provide students within the specialist programme of perioperative nursing with an academic learning environment in their clinical education, as required by the educational reform Bologna, has proved to be a challenge. Clinical supervision has been criticized of featuring too many characteristics of master-apprenticeship. Previous studies have pointed out deficits in the supervisors' competence.
Purpose
To investigate newly graduated perioperative nurses´ perceptions of supervision in clinical education.
Methodology
A cross-sectional study with a quantitative approach based on questionnaires answered by 49 perioperative nurses in Sweden. The participants were between 26 and 53 years old and had been working between 0 and 15 years as a registered nurse before beginning the education. The majority of the participants were female (n=43, 88%). Data were analysed by descriptive statistics and Chi2-analysis.
Results
Clinical supervision in perioperative education is largely characterized by practical training in nursing and is still based on the master-apprentice model. The presence of adjunct clinical lecturers (AKA) in the clinical setting is high, but the participants perceive the collaboration between the clinical setting and the university as haltering. The perceived problem is that the quality of supervision varies greatly and that supervisors to a low extent use the assessment form to support planning and reflective discussions. Furthermore supervisors do not use reflection as a method in supervision to a great extent. In general however, the supervisors' ability to perform clinical supervision was summarized as very good or good.
Implications
In order to meet the challenges that exist for collaboration between the health care organizations and the universities, a deep and comprehensive understanding is required of both organizations as to demands, culture and underlying norms and values. The appointment of a role such as the AKA could be a valuable way to bridge and strengthen the cooperation.

OP39

Global Healthcare Transformation, Why is Perioperative Services in the Spotlight?

Voight Patrick
USA

KEY WORDS: Health Status Indicators, Healthcare Reform, Healthcare Transformation, Quality Life Indicators, Healthcare Cost, Surgical Performance Improvement, Cost Reduction

Although contexts differ, all countries around the world are struggling with balancing affordability, quality, and access in the health sector. The healthcare systems in America, Canada and throughout Europe and Asia are in trouble. In the United States there is a crisis that will fundamentally cripple the ability to provide care to those who need it most – the elderly, the uninsured and the underinsured.

This crisis is a direct result of rising healthcare costs that simply are not sustainable – not for businesses, not for government and certainly not for families. Countries throughtout Europe, Asia and the Americas must learn from each other if healthcare is to continue as a fundamental right for the citizens our our countries.

The delivery of surgical and perioperative services is one area being the most closely scrutinized in our heathcare systems since these programs are the largest drivers of cost and inefficiency in our healthcare systems. As Perioperative professionals we must take a lead in transforming care, or have it done for us without our input.

Objectives:

1. Compare and contrast core quality and cost statistics in healthcare across the US/Canada, Europe and Asia
2. Compare differences in healthcare delivery across Europe and the world
3. Discuss cost and quality drivers of healthcare related to Perioperative Services
4. Identify strategies to reduce costs and improve quality care in Perioperative Services

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PARALLEL B4
SAFETY COMES FIRST IN OR

OP40

Noise – Obstruction to Patient Safety

Steiert Mary-Jo
USA

Presenter: Mary Jo Steiert, RN BSN
Director of Nursing and Clinical Operations
Lowry Surgery Center
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Objectives:

1. Discuss the appropriateness of music in the operating room
2. Consider noise as a detractor in providing patient care in the perioperative setting
3. Discuss methods of managing noise within the operating room
4. Consider the priority of the impact of noise on the patient

Noise is a necessity in our perioperative environment, but what is the effect of the different types of noise and the level of the sounds being heard? The various types of sounds being broadcast in the OR can be either pleasant and soothing or disturbing based on the perceptions of the sounds receiver.
Music, phones, alarms, sounds of machines, voices and conversations from the patient's perspective are intensified and frightening.

In 1972, Shapiro and Baland described noise as the "third pollution" in the operating room and found that the levels of noise equaled that of traffic noise on a freeway. Since that time types of noise and levels have multiplied with increased technology and advanced equipment.

It is important that we as perioperative practitioners consider the listening environment that we expose our patients and coworkers. Is it appropriate for us to create a different environment for our patients because they are anesthetized?

OP41

Surgical care practitioner practice: one team's journey explored

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England

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Vice President – Association for Perioperative Practice

Surgical practice in the UK changed in 1993, when Suzanne Holmes and her cardiac surgical colleagues introduced the surgical care practitioner role (SCP). A role for advanced non medical practitioners within a consultant surgeon led extended surgical team: SCPs work alongside a variety of healthcare practitioners to provide safe patient care, meet service demands and educate the future surgical workforce.

A surgical care practitioner was finally defined as:
'A non-medical practitioner, working in clinical practice as a member of the extended surgical team, who performs surgical intervention, pre-operative and post-operative care under the direction and supervision of a consultant surgeon.'

This presentation reviews the history of this development over the last twenty years in the context of a busy orthopaedic department. It will discuss surgical assistant practice development, supervision and delegation. And describe one emerging consequence of SCP practice, the recognition of their ability to support senior surgical trainees, to enable their transition to independent operator with only proximal consultant supervision.

Oral Presentation will reflect and expand on the following published article:

Jones A, Arshad H, Nolan J 2012 Surgical Care Practitioner: One team's journey explored
Journal of Perioperative Practice 22 (1) 19-23

OP42

A descriptive study of patient safety in the operating room

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Turkey

Fatma Eti Aslan, Semra Bülbüloğlu, İlknur Yayla

Key words: Patient safety; operating room; patient safety in the operating room

Background: All patients of the surgical process should have exhaustive and special care to protect them. Patient safety is an essential part of perioperative care because some patients might be very young or very elderly therefore; they can be more vulnerable .

Objectives: Effective patient safety in the operating room is a multifaceted and a multidisciplinary process in which intraoperative nurses play an important role. The EORNA "Patient Safety Guideline for Developing Standards" was approved by the International Federation of Perioperative Nurses in April 2005. The caretaking plan for a surgical patient should include description and prevention of possible risks which may threat the patient.

Data Sources: A multidisiplinar team comprised of nurses, health technicians and surgeons conducted descriptive observations of 14 general surgery, 12 orthopedia cases a total of 26 patients in education and research hospital. Recommended practices of EORNA about patient safety was reviewed and a questionnaire form was prepared and conducted by the researchers in an education and research hospital operating room. Observations were recorded in the field, and later coded and analyzed.

Results: In this study, scientific evidences were attained that aseptic and antiseptic tecniques were effectively used during all procedures by the operative team and during the operation, body temperatures of the patients weren't measured. During the perioperative process no guideline was used for the surgical pathology material management by the hospital. The operative team neglected to identify the risk factors for pressure ulcer development in operating room.

Conclusion: The result of this study scientifically proved that nursing interventions for patient safety in the operating room are insufficient.

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PARALLEL C4
LIFE LONG LEARNING IN OR

OP43

Delivery of a National Perioperative Webinar Education Program in Australia

Foran Paula
Australia

Education Officer, Australian College of Operating Room Nurses

Background

In an initiative to provide education across a large country like Australia, which includes not only metropolitan but regional, rural and remote areas, saw the birth of the ACORN Education Webinar project.

The Australian College of Perioperative Nurses (known as ACORN) is the national body that represents perioperative nurses from the seven state local associations. It has over 4000 members and is the largest specialty nursing college in Australia.

Webinars are a 'live' presentation platform that allow education delivery to the education consumers in the location of their choice. The can be at work in a conference room, or in their own home after work. The ability to ask live questions is available and all webinars from ACORN are recorded and placed on the member's website.

Conception to reality

An advertisement was sent out to all members looking for a Webinar Master to provide Education on each new or updated National Perioperative Nursing Standard as it was released. The popularity of the webinar presentation grew such that there are now two distinct streams of webinar delivery; one for standards education and one for general perioperative education.

Advantages

Members love the flexibility of watching at home, drinking a cup of tea. The ability to have the taped presentations allowing members to watch at their own convenience has also been unbelievably popular.

Initially, 100 places were available for each webinar, however when the webinars were booked out within 1 hour of being advertised, that was increased.

Disadvantages

This is a very fragile medium and is at the mercy of electricity, good internet connections for the moderator, speaker and all attendees, thus making it prone to technical issues.

This presentation will discuss development, implementation and ongoing management of a national webinar system.

OP44

The effect of operating room experience on operating room perceptions of nursing students

Erturk Melek
Turkey

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Objective: The purpose of the study was to determine the effect of operating room (OR) experience on OR perceptions of nursing students.
M**ethod:** A total of 220 nursing students (female:193, male:27) were included in this descriptive study, who were present in the OR as observers for two days at average. Two third were third-grade and one third were fourth-grade students.
Results: The term “operating room” reminded most of the students “green” color, and the rate was found to be 64.5% before the clinical applications whereas it increased to 75.9% after then. Approximately three fourth of the students experienced curiosity and excitement before the clinical applications. However 44.1% of the sudents experienced fear and this rate decreased in 70.1% and increased in 14,4% of the students following clinical applications. We determined that before clinical applications, what the term “operating room” mostly reminded the students were surgical procedures, cold environment and fear/anxiety, wheras after clinical applications these were surgical procedures, sterile environment and surgical smoke. Of the students, 80% stated that they were willing to go through an application in the operating room again; while 74.5% of them expressed that they would prefer surgical nursing after graduation.
Conclusion: As a result, we concluded that clinical applications in OR have an effect on students' perception of operating room. Three quarters of the students experienced decrease in operating room-related fear while most of them stated that they were willing to become surgical nurses.
The implications for perioperative nursing: In the literature search, there was no study investigating the effect of OR experience on the OR perception of the nursing students. Although the study contributes to the literature on this subject, additional research is needed.
Keywords: clinical application, nursing student, operating room, operating room perception.

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OP45

A tool of selfdiagnosis to manage skills of operating room nurses

Ludwig Brigitte
France

In an operating room, the risk is permanent. It depends on the practices of all, particularly on skills of room nurses. For several years, surgical rooms are grouped in units which become more and more important and the teams of room nurses can count more than two hundred nurses with regular departures and arrivals.
The versatility is at the heart of the evolution and of the management of the room nurses. How to pilot at best the risk and thus the practices of the room nurses in a surgical block with multicultural teams, and an important staff turnover?
It's to bring an answer to these questions that UNAIBODE (French national association of Room nurses) set up two years ago a workgroup. The aim: elaborate a tool to evaluate the level and the degree of versatility of a room nurse The end: allows every room nurse, to have a precise view of its practices to be able to exercise her activity and decrease the risks. The finality: give to the person in charge of the surgical room a tool to pilot in a precise way and with full transparency the skills of the room nurses' team.

1. A tool of selfdiagnosis:
After 24 working months, tests with more 50 room nurses and validation by a dozen of managers of blocks, the tool was worked out in its definitive version and presented to the French national congress of the nurses where it received a warmly welcome. It consists of 11 questionnaires: one questionnaire for bases (circulating and scrub nurse) and ten questionnaires of surgical specialties, ophthalmologist, orthopedics, visceral, neurology, cardiology, robot, endoscopy, maxillofacial, stomatology, etc.
2. How to use it? :
He must be filled, entirely or partially, at different selected moments of the year by the room nurse in the presence of his mentor or manager. This one brings precisions or details when it is necessary. Thanks to this questionnaire the room nurse can know exactly the skills she masters and the practices which she has to acquire. 3. A lot of applications in the human resources domain

When a new room nurse arrives in a block, When a room nurse is affected in a new surgical specialty
a. Individual Training
Every nurse knows exactly the practices which she masters and the skills she has to learn
b. Operational Team building
To have permanently a clear vision of the versatility of the teams To create teams by knowing exactly the profiles of skills of every room nurse To facilitate the planning of interventions in complete safety
c. Collective training To establish the individual or collective training plans
d. Annual interviews
To have an objective reference table, common, shared by every member of the team to estimate the staff during the annual appraisal interviews
4. Perspectives:
All the questionnaires will be available in French and English from 2018. A Web application will allow every person in charge of surgical block to use these questionnaire. They will able to have an individual profile for all the members of their team and cartography of versatility by specialty and also by team.
(For the EORNA congress, the duration of the PPWT presentation will be about 20 minutes and will be illustrated by the questionnaire and cartographies of versatility in different establishment and teams)

OP46

The power of appreciation in the learning situation

Als Christina
Denmark

In Denmark the majority of surgical nurses are well-experienced in practical skills, but the theoretical foundation is not always at the desired level.
To ensure the well-experienced OR-nurse does not get lost in the development it is important to ensure that they constantly develop and acquire new skills.
Sometimes it is difficult for the well-experienced OR-nurse to be aware of her own *blind spots* and make them visible.
What is at stake when the well-experienced nurse is brought out of her comfort zone and how can the mentor help her visualizing the blind spots and support her ways of developing new skills?
To get more knowledge about how the well-experienced nurse reacts on a learning situation I made a semi-structured interview. According to that some of their greatest concerns were to lose face or the loss of prestige.
The discussion of the findings was based on analysis from Peter Jarvis learning theory and Axel Honneth's appreciation theory.

Peter Jarvis defines learning as followed:
"The combination of processes throughout a lifetime whereby the whole person – body (genetic, physical and biological) and the mind (knowledge, skills, attitudes, values, emotions, meaning, beliefs and senses) – experiences social situations, the content of which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the individual person's biography resulting in a continually changing (or more experienced) person".

According to Peter Jarvis the person who faces a dis-juncture will enter one of the following possibilities for learning: reflective learning, non-reflective learning or non-learning. The outcome of the dis-juncture depends on how the person enter the process of learning known or unknown to the person.
The challenge is how the mentor can support the well-experienced OR-nurse in handling the dis-junction.
Maybe reflection is a way to become more aware of the *blind spots.*

OP47

Well-experienced OR-nurses in Copenhagen reach a higher level of education

Dalsgaard Monica
Denmark

Clinical competence assessment have made it possible for our well-experienced OR-nurses to work focused with nurse related topics already determined in an innovative yet strategic way, which have expanded their knowledge and understanding of existing practice and perioperative nursing care.
The Nurse Education Council in the Capital Region of Denmark has developed an evidence-based structured educational program for OR-nurses with more than 2 years of experience to ensure a consistent high level of OR-nursing skills. The educational tool includes theoretical and practical skills on a level that demands professional reflection built on evidence based argumentation.
To get a good start on the implementation in our department of Anesthesia, Center of Head and Orthopedics in Copenhagen University Hospital Rigshospitalet (> 100 OR-nurses with +2 years experience), we planned a pilot study involving a small amount of well-experienced OR-nurses in order to test the organisation and structuring of interventions before the final implementation.
The participants involved were presented to Journal Club sessions, reflection fora, and coaching by speciel trained clinical mentors. They completed three questionnaires to evaluete the the pilotstudy and bring us to the next level in our implementationstrategy.
Results of the pilotstudy showed that the participants found it meaningfull to study the theoretical parts by Journal Clubs supported by special trained clinical mentors. Through Journal Clubs they reflected and had valuable discussions and gained the necessary theoretical competences to argue for the nursing they mastered in clinical practice. Since january 2016 we have therefore decided to educate all our well-experienced OR-nurses to the next level of abstraction for the benefit of the patient and clinical practice.
Keywords: Clinical competence assessment, education tool, education improvement, education strategy, well-experienced OR-nurses, Journal Clubs, speciel trained mentors, reflection fora, evidence-based practice

OP49

Discharge counselling of multicultural patients and their families in day surgery

Sinivuo Riikka
Finland

Continually increasing cultural diversity sets new requirements for nursing care. Previous research show the importance of acknowledging the individual needs of multicultural patients due to language difficulties, different cultural values, customs and beliefs and experiences which can easily lead to misunderstandings (1-3). In day surgery, it is especially important to ensure the comprehension of discharge instructions since the patient returns home just a few hours after the surgery (4).

The purpose is to describe discharge situation of multicultural patients and their families in day surgery. The aim is to develop family centered and culture sensitive care in day surgery. The data were collected by observing seven nurses discharging nine patients after day surgery. Observed situations were videotaped and analyzed using inductive content analysis. Nine nurses were also interviewed about their experiences of discharge counseling of multicultural patients. Interview method was qualitative and inductive content analysis was used in analysis. Second data collection part will include the interview of the patients and their family members as well.

Going home was seen as the goal of discharge, and all participants seek to ensure the home care instructions were understood. Nurses and patients/family members had varying roles in discharge, from patient centered counselling and active participation to counselling everyone the same way and patient being a passive recipient. Nurses regarded the counselling of multicultural patients as demanding and time consuming. Recognition of cultural differences was individual and the existence of cultural differences was rejected, criticized or approved. Some nurses pursued to take cultural background into account while the others insisted on counselling everyone similarly.

Nurses, patients and family members used several methods to ensure understanding of instructions. However, patients' individual needs of counselling were not taken into consideration systematically, which could impair understanding the instructions correctly, and thus successful home care.

Keywords: discharge, counselling, day surgery, multicultural nursing

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OP50

Connecting with Families Using Smart Technology

Bagaoisan Cora

Canada

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Over the past years, we have seen practice changes related to caring for a surgical patient. Nursing schools and hospitals that once trained nurses in techniques to avoid giving out information, now encourage nurses to realize the importance of providing information, which enable, the family to be part of the patient's surgical experience. Heightened stress, anxiety and feelings of helplessness are emotions identified by families especially during the time that their loved ones are in surgery. These feelings appear to be more evident when families sit and wait for hours in the waiting room without any information from the perioperative team. The University Health Network takes pride in being patient and family centered and is constantly finding new ways to streamline communication and establish linkage with waiting families. In 2005, Toronto Western Hospital (TWH) Operating Room (OR) introduced intraoperative family visits for procedures that were two hours and longer. It was a great initiative and family satisfaction had improved briefly. Sadly, we continue to have challenges with missed visits due to staffing and complexity of cases and cases extending past the regular hours. Letters from family members expressing their frustrations continued to pour in. In 2008, the OR Clinical Educator introduced the family disc paging system with the goal of addressing some of these challenges. While it addressed feelings of confinement and sense of timeliness for families in waiting, the reduced staffing during off hours and weekends and the complexities of our cases remained our biggest hurdle. Nurses were hesitant to leave the OR and meet with family.

This presentation will highlight a new form of technology the we introduced at our facility last Fall as a quality improvement project designed to enhance communication and improve service delivery to our clients. The alpha numeric system of messaging delivers up to date information to waiting families when a face to face visit is not feasible. Some of the pre-text messages incorporated include, "Patient Asleep, Surgery Started; Procedure Done, Patient in Recovery; Taking Longer, All is well." The intent is to of keep families informed throughout the intraoperative phase of the patient's experience regardless of duration, staffing and case mix. Addressing the need for information had overall improved families and staff satisfaction.

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Preferred Type of Presentation: Oral
Topic: Clinical Improvements/Innovations
Key Words: Communication, Information, complexity, case mix, service delivery

OP51

Satisfaction Level of Organ Transplant Patients in terms of Social Support and *Nursing Care*

Dolgun Eda
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Background: Social support and nursing care are important factors for adaptation of organ transplant patients to the changes in their lives.
Purpose of Study: It was planned to investigate the satisfaction levels of organ transplant patients in terms of social support and nursing care and also to determine the relation between these two items.
Methodology: This descriptive research was conducted with the patients having undergone organ transplantation in a university hospital between 31 March and 31 August 2016 and with those having undergone the procedure before and coming to clinical control as they accepted to answer the research questions (n=140). While collecting the data; question form consisting of 12 questions related to identifying information of the patient, Newcastle Satisfaction with Nursing Scales and Multidimensional Scale of Perceived Social Support Questionnaire were used. Necessary permits were obtained for the use of scale.
After obtaining approval from Ege University Faculty of Nursing Ethics Committee for the research, the written permission from the institution where the research would be conducted was obtained. The data were evaluated by number, percentage, average and Pearson correlation analysis in SPSS 16.0 program.
Results: The mean age of the patients was 38.89±11.80. It was seen that 64.3% of patients were women, 65.0% were married, 36.4% primary school graduates, 73.6% liver transplants, 26.4% kidney transplants and 72.1% of them were organ transplant from living donors. Patients Multidimensional Perceived Social Support Scale score average was 69.25±7.21, also experiences about Nursing Care Scale mean score was 75.41±2.27 and Nursing Satisfaction score mean score was found to be 71.73±3.05. There is no statistically significant correlation between Social Support Scale Total Score and nursing care related experiences Scale total score (R=0.087, P=0.305) and Satisfaction Scale total score (r=0.012, p=0.891).
Conclusions: Satisfaction levels in terms of social support and nursing of organ transplantation patients were found to be at a good level.

KeyWords: Social support, Nursing Care, Satisfaction

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OP52

Validity and Reliability of the "Good Perioperative Nursing Care Scale"

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Background:
Quality in Healthcare has great importance and measuring the quality of care is considered essential for developing clinical practice. Patient satisfaction and the patient's perspective of care are indispensable elements of the overall concept of Quality, and should be included in the assessment of Quality in Healthcare (1, 2). Yet, there is no Danish tools for measuring the patient's perspective of the perioperative nursing care, but a Finnish tool 'Good Perioperative Nursing Care Scale (GPNCS)' developed and validated by Leinonen in 2001 (3) and translated into English and Turkish (4).

Aim:
To translate and cultural adapt the 'Good Perioperative Nursing Care Scale' into a Danish context and then to test the validity and reliability of the Danish version.

Method:
A systematic translation and cultural adaption of GPNCS was made by using an international recommended guideline by ISPOR (5), containing translation/back translation by independent translators, proofreading of the translation by the developer and a face validation by professionals and surgery patients. Minor changes of the GPNCSdk were made to meet the conceptual and semantic equivalence, as well as the cultural adaption. The validity and reliability of the electronic Danish version of GPNCS (GPNCSdk) was tested on 200-300 acute and elective orthopedic surgery patients at a Danish Hospital using an iPad.

Results:
We started data collection the 1. April 2016. That leaves us with no present results yet, but we will be able to present results at the conference.

Implications:
The GPNCSdk provides a validated tool to assess the Danish patients' perspective of the perioperative care. It is recommended to determine and develop the quality of perioperative nursing care in Denmark. Furthermore it provides the possibility of international comparison of the quality of perioperative care since the tool exists in an English, a Finnish and a Turkish version.

Key words: perioperative nursing, perioperative nursing care scale, quality, validity, reliability, Danish measurement tool, PREM, questionnaire

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PARALLEL E1
ROBOTS IN OR - MEET NEW COLLEAGUES

OP53

Robotic emergencies: Are you ready for a disaster ?

Carlos Grace
USA

Memorial Sloan Kettering Cancer Center (MSKCC) performed over 2100 robotic surgeries in 2015, spanning over several surgical services. MSKCC currently maintains a total of 7 robots, six of which are the most current Xi model, and one Si model

The surgical robot is a tool that surgeons use to perform minimally-invasive procedures. Nursing staff plays a vital role in ensuring patient safety with use of robot during surgery. Proficiency in the use of the robot requires extensive and continuous training for the entire surgical team. Because of the complexity of the technology, successful robotic programs must implement initiatives for the prevention and management of robotic emergencies. It can happen anytime, and the staff must be fully aware of the emergency protocols.

This presentation will focus on how to develop a successful robotic program that includes procedures for the prevention and management of emergencies in the Operating Room (OR). It will discuss these processes developed by a multidisciplinary Robotic Executive Committee:

- Emergent Conversion to Open Procedure checklist, which defines each surgical team member's task during an emergency. Incorporation of this checklist during the surgical timeout before each case.
- Robotic Emergency tray that is readily available to convert to an open procedure.
- Sterile robotic wrench to release a robotic instrument in an emergency.
- Stand-by cart containing a set of instruments that is service specific; readily available if there is a need to convert to an open procedure.
- Education and training of nursing and surgical staff on management of robotic emergencies.

Frontline nursing staff will gain knowledge on what to do during robotic emergency. It will assist educators in developing training materials and creating simulation for robotic emergent conversion. Through ongoing simulation, staff will develop and maintain skill and confidence during critical events.

OP54

Nurses' adaptation process to robotic surgery: A qualitative study

Uslu Yasemin
Turkey

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Introduction and Aim: Robotic surgery is a method to perform surgery through using a robot. For robotic surgery operations, in which teamwork has an important role on success, nurses are responsible for building the system and maintaining continuity (1-3). In the literature, studies focus on nurses' experience on using robotic surgery technology or their adaptation to this technology are rare. The main aim of this study is to reveal nurses' experiences related to robotic surgery process.

Methodology: This is a qualitative study, which is based on focus group interviews. The sample of the study involves robotic surgery nurses working in an operating room of a private healthcare group located in Istanbul-Turkey. In order to be included in the sample, nurses were required to be working as nurses at least six-months, and declared voluntary participation. Focus group interviews were done by using "semi-structured interview form", and all the interviews were type-recorded. In order to analyze the data collected from the interviews, content analysis method was used.

Findings and Discussion: Interview themes include the dynamics related to (1) interest in surgery nursing, (2) deciding to robotic surgery nursing and technological adaptation (3) adaptation to the changing roles in robotic surgery nursing, and (4) features and future of robotic surgery nursing. In general, participants noted that they want to move away from human relations, so they choose to work in operating room, which is based on technical skills. Majority of the participants noted that they have learnt robotic surgery nursing through master-apprentice relationship, however they also emphasized the necessity of training as well. Participants also noted that inclination to technology is not so important in terms of learning robotic surgery nursing. Moreover, it was also noted that technical knowledge inadequacy or technical problems derived from the device may cause anxiety for nurses, which then leads to fear of hurting the patient. In robotic surgery, nurses' responsibility is increased and nurses are required to have technical knowledge. In addition, participants emphasized that individuals having necessary skills for surgery nursing are more likely to become robotic surgery nurses as well.

Discussion and recommendations: In robotic surgery operations, patients' need have been changed, and thus, nurses are required to adjust to this new technology. Moreover, it is argued that adaptation to robotic surgery process may lead to positive psychological results for nurses, which then leads to increase both individual career success and organization's performance. Furthermore, better patient care might also be noted as a positive outcome of the adaptation process.

Keywords: Robotic Surgery Nursing, Technological Adaptation, Focus Group Interview

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OP55

Postoperative position related extremity symptoms after robot assisted laparoscopic cystectomy

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Background: The perioperative nurse has an important role to plan for, and ensure the patient safety in the operating room, including positioning the patient for specific procedures. Robot-assisted surgery has been an increasing surgical method in urologic surgery, and requires steep Trendelenburg positioning of the patient. This position is challenging for the perioperative team due to the hemodynamic and respiratory impact, as well as the risk for pressure related injuries and compartment syndrome. Available medical record based studies indicate a low frequency of position related peripheral nerve injuries due to steep Trendelenburg position. However, patient reported position related extremity symptoms are vaguely described in the literature.
Aim: To identify frequency and variations of position related extremity symptoms after robot assisted laparoscopic cystectomy (RALC).
Method: In a prospective cohort design, 95 consecutive patients undergoing RALC (72% of eligible), were followed-up one month postoperatively with validated questionnaires; Disabilities in the arm, shoulder and hand (Quick DASH) and Lower extremity functional scale (LEFS), and a set of study specific questions. Patients with residual extremity symptoms were followed-up monthly by telephone up to six months after surgery. Data was collected 2015-2016 at a Swedish university hospital.
Results: The data collection has ended and the data analysis is in progress to be finished in end of 2016 for presenting the result at the EORNA congress in May 2017. So far, the results show that 26 patients (27 %) reported pain and/or other symptoms one month after surgery that could be related to the position during surgery.
Clinical relevance: There is a risk for underestimating the importance of proper patient positioning why it needs to be emphasized. Complications after surgery that are not related to the surgical site need to be illuminated for maintaining patient safety.
Keywords: robot assisted laparoscopic cystectomy, steep Trendelenburg, surgical positioning, pressure injuries, postoperative extremity symptoms, telephone-based follow-up

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OP56

A friend not like the others in the field of surgery : the Da Vinci robot

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Godefroid Déborah (urology nurse in CHR Citadelle Liège)

Keywords : Roboscopy , Nurse's role, ENT, Urology

Background:
The constant evolution of medicine, especially the surgical procedures, leads inevitably to a development of our skills
Roboscopy is one of those technological developments in the field of surgery.
This new approach brings many postoperative benefits for the patient, for example less pain following surgery and reduced hospitalization time.
The surgeon also benefits from this new friend because he has a better visibility as well as an improved accuracy of execution, compared to the traditional surgical procedures using laparoscopy or endoscopy.
Focus of interest:
This evolution lead us, operating room nurses, to reconsider our job as a circulating or instrumentalist nurse.
We are facing procedures that are sometimes quite complex, often unknown and frightening for some of us.
These developments of the nurses' role will essentially focus on ENT surgery and urology.
In this presentation, we will tackle the setting up of the robot and its different components.
The consideration for the patient's features during his installation will be an important item of our presentation, since it is a critical part of our job as circulating nurse.
The last issue that will be tackled is our training for the instrumentation of this surgery technique which is not known to all yet. Our training proved particularly helpful when we faced more complex cases. Our knowledge sometimes allowed us to overcome some technical issues.
Conclusions:
We would appreciate to share some of our new knowledge with you.
We hope that this abstract aroused your interest for this new friend "Da Vinci", and that you are willing to know more about him.

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OP57

Comparative Study of Pain, Stress, ACTH and Cortisol levels between Fast Track Protocol and Conventional Perioperative Recovery Program in Oncological Patients Undergoing Hepatectomy or Pancreatectomy

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Key-words: Pain, Stress, ACTH & Cortisol levels, Hepatectomy, Pancreatectomy, Fast-track Recovery Program

Background
Fast-track (FT) surgery has shown to improve patient outcomes with a more rapid resumption of normal activities after both major and minor surgical procedures(1,2). FT protocol reduces complications and the length of postoperative stay(3) after major abdominal surgery, such as hepatectomy or pancreatectomy(4).
Purpose of the study/Goals
The comparative study of Cortisol and ACTH levels between fast-track and conventional protocol, as a possible stress and pain markers.
Methodology
A prospective randomized clinical study was conducted from May 2012 to February 2015 with a sample of 173 patients who undergone hepatectomy or pancreatectomy, randomized into 2 groups. In group A (n=90) was applied FT protocol and in group B (n=83) CON protocol. Demographic and clinical data were collected and patients were assessed by VAS and Puntillo pain scales and 3 self report questions about stress status. ACTH and Cortisol plasma levels were measured at 3 different time points: a)day of admission, b)operation day, c)prior to discharge. Statistical analysis was carried out by SPSS 22, at a nominal significance level α=0.05.
Results
The two groups of patients were matched for age, gender, body mass index and kind of surgery ($p>0.05$). There was no significant difference in serum ACTH and cortisol levels between the two groups ($p>0.05$). The risk of developing complications was 2.05 times greater in CON group than FT group ($Chi^2=9.86, df=1, p=0.002$). In FT group ACTH-a levels were associated with pain levels (VAS scale) the 1st and 2nd postoperative days (rho=-0.287,p=0.006, rho=-0.25,p=0.015, respectively), while in CON group cortisol-a levels were correlated with the day of resumption normal diet (rho=0.23,p=0.031).
Conclusion
The present study suggests that FT protocols could accelerate postoperative recovery of patients safely and efficiently without increasing stress levels of patients
Implications for perioperative nursing
FT protocol improves patients' recovery with great participation of nurses in planning and caring of patients.

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OP58

Introduction program at an Operating Room Department - Operating room nurses and nurse assistants

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Background

One area of main interest from the operating room nurses (ORNs) perspectives and patient safety is the importance of correct planning for nursing care and for safe surgery (1, 2, 3). In hospitals, departments are mostly structured in silos and organized from this “silo-thinking” which leads to fragmented goals and objectives for the patient care (4) and with different goals and priorities for the professionals (5). The planning and scheduling are foremost delivered by computerized systems (6), which ease the planning, but the systems are not enough developed, why it is difficult to plan for the operations (7) and thereby intraoperative nursing care. Organizational structure, good leadership and interdisciplinary collaboration are key factors (8, 9). Leaders, as first line managers, have a great impact on the organization, management and the attractiveness of the workplace for nursing personnel (3). Preoperative dialogues between the surgical team-members and familiarity of the procedure are of importance for patient safety (10, 11, 12).

The aim of the study was to describe operating room nurses’ experience of preconditions for safe intraoperative nursing care and safe surgery.

A qualitative design was chosen for increased understanding of ORN’s experiences of preconditions for safe intraoperative nursing care. Data collection was conducted with narrative interviews with 16 ORNs (13) and data analysis used content analysis (14).

The findings show that safe intraoperative nursing care from ORNs perspective occurs when knowledge about the patients’ health status and desires was fulfilled. Shared information between surgical team-members about the patient and the surgical intervention was of crucial importance for ORNs to achieve safe care. Computerized information systems were incomplete, regularly preoperative dialogues within the surgical teams were nonexistent, and a risk of fragmented care was evident. ORNs professional skills should be mandatory resources in planning for the patients’ surgery.

Key words: operating room nurse, information, electronical, leadership, teamwork.

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OP59

PREOPERATIVE NUTRITIONAL EVALUATION OF OLDER PATIENTS

Gezer Nurdan
Turkey

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INTRODUCTION: Malnutrition can develop in older people due to social factors, chronic diseases and psychological or physiological changes. It can cause serious problems for patients who undergo scheduled surgery since surgical stress and trauma increase metabolic needs.
OBJECTIVE: To evaluate the preoperative nutritional status of older patients scheduled for surgery and determine if they suffer from malnutrition.
MATERIALS and METHODS: This descriptive study was conducted in a university hospital's surgery clinics. It used improbable sampling with 100 participants at least 65 years old staying in surgery clinics for the first time between September and December 2016. The researchers measured BMI, and arm and calf circumferences. Data were collected using data entry forms and the Mini Nutritional Assessment (MNA). Institutional and ethics committee permissions were received.
FINDINGS: The patients' average age was 72.20±6.04. Their BMI, arm and calf circumference averages were 27.99±5.66, 28.85±4.95, 45.08±6.15, respectively. Males constituted 76% of the sample. Of the patients, 81% were married, and 59% lived with their spouses. Of them, 36% were in the urology clinic, and 32% were in the cardiovascular surgery clinic. Of them, 27% had observed changes in nutrition, 42% had lost weight, and 7% intentionally lost weight. Their average weight loss was 6.78±4.83 kilograms, and 12% indicated loss of appetite as the cause of their nutritional changes. Their mean score on the MNA was 24±3.7. The mean screening score was 11±2.6, and the mean evaluation score was 13.5±1.8. According to malnutrition indicators, 45% were at risk of malnutrition, and 5% suffered from malnutrition. Of their BMIs, 14% were below 23kg/m2, and 30% were above 30kg/m2.
CONCLUSION AND RECOMMENDATIONS: Nutritional status is significant for postoperative clinical evaluations, and there is a strong relationship between malnutrition and deterioration. Preoperative identification of malnutrition by nurses, indication of nutritional problems and preventing malnutrition-based postoperative complications can all be recommended.

OP60

The role of emotional intelligence and occupational stress in employees' job performance in health care and medical environment

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The purpose of this study was to examine the relationship between occupational stress and emotional intelligence in the working health-care and medical environment as well as the effect of those two variables on job performance. Up till now, a plethora of studies have demonstrated the strong relationship between emotional intelligence and occupational stress in correlation with job performance / performance management (1, 2, 3). However, not many studies have been conducted yet referring to the above relationships in health-care and medical domain. A qualitative study was conducted in which self-reported questionnaires measuring occupational stress (4) and emotional intelligence (5) were administered on health-care and medical employees in 401 General Army Hospital of Athens. Specifically, the results indicated a strong statistical significant negative correlation between occupational stress and emotional intelligence. Likewise, in this study it was deducted that there is not only no significant difference among men and women both in the level of emotional intelligence in the working environment and in the way the two gender experience occupational stress. In addition, in this study was made an effort to find out, which of the variables being examined are predicting performance sufficiently. What is more the workload was indicated to affect significantly the experience of occupational stress. Both the aspects of occupational stress and emotional intelligence should be taken into account in order to improve performance. Accordingly, the level of emotional intelligence and the occupational stress should be studied in the health-care and medical domain (private and public hospitals, and in every separate department), so that the hospital managers will develop the appropriate working conditions for the employees occupied in their organizations.

Key Words: Emotional Intelligence, Occupational Stress, Performance, Health-Care and Medical Domain

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PARALLEL D2
NURSING CHALLENGES

OP61

Professional identity of perioperative nurses inside interdisciplinary team

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- **Chair of Educational Committee (EORNA)**

Background:

The perioperative nurses must be convinced of the importance of the professionalisation of their job and of their positioning in the interdisciplinary team in the operating room (OR).
The absolute power of the surgeons is questioned more and more because they are no more nuns at their service. The OR nurses have developped their education, their clinical judgment, their reflexion,...
But, do they dare to really take their place inside the OR team?

Focus on interest:

There is a lot of questions about this subject :

- Does this professional identity exist?
- What kind of image the perioperative nurses have about themselves?
- The other professionnals in the OR, do they know the roles of the perioperative nurses?
- Is the perioperative nurse's job a interdisciplinary or a pluridisciplinary job?
- Is it a job in collaboration or in cooperation with the other professionals?

The results of a survey conducted among OR nurses in the French part of Belgium, and some examples taken in the French literature will possibly give an answer to those questions in order to specify the positionning of the Belgian OR nurse in the team.

Conclusions and implication for perioperative nursing:

Today, we constantly have to face many changes and challenges in the operating theater. Perioperative nursing is one of the very fast evolving specialities. The advances in surgery and the allied specialities has been enormous in the last decade. In this context, the perioperative nurses must take their place in the OR team and work like real partners in the care.

KEY WORDS

- ✓ **PERIOPERATIVE NURSE IN BELGIUM**
- ✓ **PROFESSIONNAL IDENTITY**
- ✓ **INTERDISCIPLINARY TEAM**

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OP62

Reshaping practice: a constructivist grounded theory study of rule breaking in perioperative nursing

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Background: Despite the focus on patient safety, patients undergoing surgery continue to suffer adverse events. Perioperative nurses perform a range of clinical activities, guided by rules and standards that have been developed to support safe ways of working and limit the variability of human behavior, to provide a safe environment for patients and minimize the risk of harm. Deviation from these standards and rules may have unintended adverse consequences for patient safety. This research explores the factors that influence the decision making of perioperative nurses to work in ways other than following the rules.

Purpose: The purpose of this study is to develop a substantive theory to explain the ways that perioperative nurses work to get the job done and the factors that influence their decision to deviate from standards and rules.

Methods: Between 2015 and 2016, a constructivist grounded theory study was conducted that included 56 hours of observation of practice and 10 hours of in-depth semi-structured interviews. 5 RN's and 1 EN working in operating theatres at a public and private hospital in Tasmania participated in the study.

Findings: The substantive theory that perioperative nurses reshape their practice characterizes the processes through which perioperative nurses' respond to pressures to get the job done. Findings demonstrate that in certain circumstances, perioperative nurses intentionally deviated from standards and rules. The phenomena of 'feeling pressure' and 'being pressured' were found to influence this behaviour. Nurses' responses to pressure highlighted the use of positive deviance as an approach to managing competing demands and priorities within the complex environment that characterises perioperative nursing.

Discussion: Study findings highlight the importance of firstly acknowledging that perioperative nurses do not always follow rules and standards and secondly recognising that they reshape their practice in response to the situation at hand, applying experience and clinical judgment. The theory adds to our understanding of the role that organisational, team, individual characteristics and the ambiguity/clarity of rules, tasks and responsibilities play in creating pressure, leaving the environment more vulnerable to working in ways other than following the rules.

Implications: The implications of positive deviance are that despite potential benefits to the patient, the team and organisation, decisions to **deviate from** standards and rules may result in unsafe practice and the potential for patient harm. When coupled with the lack of documentation of the deviations and continuing absence of professional conversations around this issue the opportunity to improve systems and processes and amend standards and rules to reflect the reality of practice is lost and the potential benefits of positive deviance remain hidden. Further research is needed to extend, test and refine the theory of shaping and reshaping practice to develop strategies to scrutinise and test new practices to ensure they are safe.

Conclusions: This theory advances the perioperative nursing perspective of responding to feeling pressure and being pressured in clinical practice. The theory is relevant to nurses who are faced with competing goals and demands to get the job done whilst delivering safe patient care and minimising the risk of harm, and to researchers who investigate ways to improve decision-making and care delivery.

OP63

Working posture and its predictors in hospital operating room nurses

Sayilan Aylin
Turkey

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Background: This study was conducted to evaluate working posture of operating room nurses and its relationship with demographic and job details of this group.
Methods: This cross-sectional study was conducted among 100 operating room nurses in Turkey in Dr. Sadi Konuk Education and Research Hospital using a questionnaire and the Rapid Entire Body Assessment (REBA) checklist. The data were analyzed with SPSS.15 using t test, Pearson correlation coefficient and analysis of variance (ANOVA) tests for univariate analysis and the linear regression test for multivariate analysis.
Results:
The mean (SD) of REBA score was 7.7 (1.9), which means a high risk level and highlights an urgent need to change the working postures of the studied nurses. There was significant relationship between working posture and age (P = 0.01), gender (P = 0.03), regular daily exercise (P = 0.001), work experience (P = 0.000), number of shifts per month (P = 0.04) and type of operating rooms (P < 0.001) in univariate analyses. Gender and type of operating room were the predictors of working posture of nurses in multivariate analysis.
Conclusion: The findings highlight the need for ergonomic interventions and educational programs to improve working posture of this study population, which can consequently lead to promotion of health and well-being of this group.
Keywords: REBA, Postural, Operating Nursing, Healthcare, Turkey.

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Data analysis
Statistical analysis of the data was performed with SPSS software version 15 (SPSS Inc., Chicago, IL, USA). Demographic data and job characteristics of the study population were tabulated. Binary and ordinal logistic regression analyses were applied to assess the relationships between prevalence rate and severity of musculoskeletal symptoms and study variables, respectively. Multiple logistic regression analysis was also carried out using backward stepwise procedure to estimate the association between independent variables and reported musculoskeletal symptoms for each body region in the multivariate context, so that nine different regression models were developed covering the nine different body parts. The odds ratios (ORs) and 95% confidence intervals (CIs) were calculated from multiple logistic regression models, and the fit of the models was confirmed by the Hosmer–Lemeshow goodness-of-fit test. For all statistical tests, *p*-values < 0.05 were considered statistically significant.
Data collection and procedure
Data were collected using questionnaires and direct observation of the participants during their work. The questionnaire recorded demographic details including age, gender, marital status and study major, as well as daily exercise habits of the participants. The questionnaire also covered items regarding the job including work experience, type of operating room, shift working, having a second job/responsibility, job satisfaction, and perceived pressure due to work.
Working postures of nurses at their workstations were evaluated using the Rapid Entire Body Assessment (REBA) method,which is a reliable and validated observational method. This tool

gives a specific scoring method for recording posture of each body part (e.g. neck-trunk-legs and shoulders-elbow-wrist), which is based on various static or dynamic movements, movements with rapid changes and unstable positions. The overall REBA score ranges from 1 to 15, with higher scores showing the more problematic postures. An overall REBA score relates to one of the five action levels: Action level 0 (score of 1) which means that the risk could be overlooked and there is no need to change the current status; Action level 1 (scores of 2-3) that means low risk in which change in position might be needed; Action level 2 (scores of 4-7) which means moderate risk that necessarily requires a change in position; Action level 3 (scores of 8-10) which means high risk with quick necessity to apply changes in position; and Action level 4 (scores of 11-15) which means great risk that requires urgent position change. The present study examined the working postures of operating nurses while doing three main activities in their job including retracting, transferring sets and setting up the table. The observations and recordings of working postures were carried out by two investigators, using a separate REBA assessment sheet for each operator for recording the REBA scores. The inter-rater reliability of the REBA scores was evaluated using Kappa coefficients and the results showed good reliability. This rate was 87.1 % for retracting, 89.1% for transferring the sets and 89.8% for setting up the table.

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OP64

The evaluation of needlestick, sharp injuries and blood and body fluid exposures among operating room nurses

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Aim: The aim of this study is to evaluation of needlestick injuries, sharps injuries, and blood and body fluid exposures among operating room nurses in Zonguldak and Karabük provinces during one year.
Methods: This study was designed as a descriptive study. The sample consisted of 103 operating room nurses working in Zonguldak and Karabük provinces, Turkey. This study was carried out between May and July 2016. Data were collected by questionnaire consisted 22 questions in accordance with the relevant literature. Data were evaluated by using descriptive statistical methods.
Results: 75.7% of the surveyed nurses were female, mean age 34.09±6.71 years of age, 56.3% a graduate degree. The average total working years in the operating room is 9.18±8.36 years; the average weekly working time of 39.76±7.47 hours. 83.5% of nurses were trained on protection from needlestick injuries, sharps injuries, and blood and body fluid exposures. 18.9% of nurses needlestick injuries, sharps injuries, 27.0% exposure to blood and body fluids, 54.1% while both needlestick injuries, sharps injuries and body fluid exposure experience was determined. The incidence of needlestick injuries sharps injuries 53.6 % twice the rate of exposure to blood and body fluids of 50.0% to be twice the rate were found in the last year. 89.7% of the nurses were injured pretends clean up the area after exposure. 69.2% of the nurses get post-exposure did not submit a report. 60.5% of the nurses were experienced anxiety, and 31.6% of them experienced stress after injury/exposure. 42.1% of the nurses after exposure received health services. Initial application to the health service 62.5% at a rate of has been an infection control nurse.
Conclusions: Operating room nurses in needlestick injuries, sharps injuries, exposure to blood and body fluids were determined to be high. In-depth interviews through the investigation of the causes of injury and exposure are important.

OP65

Are we the real colossus or is it just wishful thinking

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What a wonderful congress theme, "The colossus of perioperative nursing" !
In this presentation I would like to dig a little bit deeper into several questions regarding this theme.
If we as OR nurses claim to be the colossus of the perioperative care processes would that have consequences for the way we work (and our role in) the surgical team? After all, working in a team implicates that every single team member is equally important.

What does it mean to be the colossus of the perioperative care processes in normal clinical practice of an OR nurse ? The single most important objective of healthcare in general but also of the perioperative processes is all about securing the best possible patient outcome.
Do OR nurses measure the contribution of their interventions (work) to secure that patient outcome or are they aware of the results if others measure that? If we do not measure or if we are not aware of the measuring results, can we than be or be held responsible for our part in the patient outcome or even more important are we really the colossus if we don't measure?

How important are nurses in providing the most secure perioperative care (patient outcome) and do we really need OR nurses with MSc or even PhD qualifications to make us the real colossus ?
The modern world is characterized by an ongoing Europeanization or even globalization, Does that have implications and consequences for the daily practice of OR nurses ?

These and a few other questions I would like to answer in my presentation.
While most presenters wouldn't like the audience to bring and/or use mobile telephones during presentations, I would ask the audience to bring their telephones and to install a (free) app (Poll everywhere). This app enables to measure the opinion of the audience "on the fly" during the presentation. It also ensures an optimal interaction of the presenter with the audience

PARALLEL E2
SURGICAL DEVICE MANAGEMENT IN OR

OP66
Use of FMEA tool to improve loaner surgical instrumentation management in the perioperative environment

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Keywords
Loaner instrumentation, failure, medical device, improvement, FMEA

Background
Failure Modes, Effects and Criticality Analysis (FMEA) is a safety and quality management tool developed by the US military in the 1940s. This method quantifies the criticality of failures.
In the OR, we work every day in respect of dozens of processes, procedures and instructions, all to improve quality of care, patient safety, staff security and sound health economy.
Only someone who knows the risk can prevent it [(1)]. As perioperative nurse, we were trained to work in this high risk environment because it is complicated with a high level of activity, many caregivers co-exist, equipment used are complex and varied and human issues are our top priority [(2)].

Focus of interest
By taking for example the use of short term ancillary equipment and loaner instrumentation, the speaker will show how to map the complete process and critical point of interest, from its need for a particular type of surgery until his return from the supplier, through its proper use (including implantable medical devices concerned), aspects related to the surgical technique (training, handling and implantation), CSSD role, hygiene, pharmacy store management, economic and regulations, ...

Theoretical framework
Many studies [(3)(4)(5)] report the use of this approach for prioritizing improvement actions to drive on a process, a product, a system, working in decreasing order of criticality. This kind of analyzes can be adapted to any question in any field. They can be the basis, among other things, for analyzes reliability, maintainability, availability, quality and testability. It is a priori approach to prevent the occurrence of incidents, but it can be used when reviewing a process completely.

Conclusions and implications for perioperative nursing
This improvement methodology brings quality and safety for surgical patients and can be used by OR nurses, OR nurse managers and hospital authorities in a wide range of topics.

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OP67

The New European Requirements for Single-Use Device Reprocessing

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Background: Europe has now adopted a comprehensive Medical Device Regulation (MDR) (note, passage is expected by June, 2016 with implementation beginning this fall – thus, by the time of the conference, we will know the final regulation). The MDR now regulates the reuse of "single-use" devices (SUD) as a manufacturing activity and thus such reuse, whether it takes place in hospitals or commercial entities, is subject to EU manufacturer requirements, including CE marking requirements.

Research: This session will provide an overview of the peer-reviewed literature supporting the safety of regulated SUD reuse, but will also briefly address a 2016 study addressing device failure rates (new versus reprocessed).

Key words: Single-Use Device, Reprocessing, Regulations, Requirements

Short Abstract: This session will

- Provide an overview of new European regulations regarding SUD reuse
- Address the differences between hospital reprocessing and commercial reprocessing meeting medical device manufacturer requirements
- Provide insight into the implications of the new requirements for hospitals
- This session will also provide an overview of the economic and environmental implications for healthcare markets where SUD reprocessing has been regulated, evaluating safety, cost-saving and environmental factors

The regulation of SUD reuse is an important first step toward stopping unregulated SUD reuse in hospitals. However, regulation will provide an overt, legal and safe pathway for hospitals to acquire lower-cost and environmentally preferrable reprocessed devices. The result will be increased patient safety, more competition, lower costs and reduced medical waste for hospitals.

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OP68

VIDEO: Decontamination, sterilisation, Inspection and maintenance of surgical instrument

Eide Petrin

Norway

https://www.youtube.com/watch?v=LQX1brULflA

OP69

Perioperative Nurses Opinions and Responses on Intraoperative Nursing Errors

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Key words: perioperative nursing, intraoperative nursing errors, coping strategies

The security of surgical patients' is the main priority of Operating Room Nurses (ORN). However, errors, that cause mild to severe effect on patients' integrity, is a quite common phenomenon in surgical settings.

Purpose/ Goals of the study

To explore the types of errors made by ORN; to identify the causes of these errors and determine the most constructive way to cope with them.

Research problems

Which are the most common Intraoperative Nursing Errors (INE)? What causal attributions do the ORN make about an error committed? What coping strategies do they adopt? What are the changes in practice as a result of an INE? How do these variables correlate?

Methodology

This is a descriptive - correlational study conducted in February 2014 in four Greek Hospitals. A questionnaire was handed out to 176 ORN, from whom 105 responded (60%).

Theoretical framework

The cognitive theory of Folkman and colleges [(1)] about psychological stress and coping and the theory of Buss [(2)] about errors and their causal attributions.

Results

The most common INE documented was 'break in sterile technique' (25.8%) and 'inaccurate, incomplete, or absent surgical count' (21%). The above where mostly detected during laparotomy (36.4%), general (23.6%) and orthopedic surgery (14.6%). Most errors committed were attributed to external causes by ORN (70.8%). Intense emotional distress was reported as a result of the error (median=24.0, value range=8-32). The majority of the respondents accepted responsibility of the error (80%), which was positively correlated with constructive changes in practice (p-value=0.000). A strong correlation was reported between judgmental managerial response and defensive changes in practice (p-value=0.003, rho=0.503).

Implications for perioperative nursing

Accepting responsibility of an error appears to be the key for INE reduction. That provides a safer operating room environment and improves perioperative nursing care.

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OP70

Here to Treat, not Facebook or Tweet!

Given Margaret
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Social media is the use of platforms of electronic communication to create online communities such as Facebook (1). Nursing guidelines appreciate that the boundary between personal and professional persona can be distorted online and emphasise professional responsibility (2). Joan Rivers's death highlighted the direct conflict between social media and patient safety (3).

Using smartphones to access social media has a negative consequence on cognitive performance; decreasing reaction time and reducing attention (4). This is concerning where mental concentration and rapid decision-making are at the crux of care. Distraction compromises communication, which is the root of adverse events (5). Habitually checking social media for non-work purposes is 'distracted doctoring' and negligent practice (6).

Social media can compromise privacy and confidentiality, which is enshrined in the nurse's code of conduct (7). Lack of privacy is literally and virtually having control over who can see, hear and touch you, hence the ease of breaching privacy by photographing or videoing patients (8). In social media world, privacy is an illusion (9).

High levels of microbial contamination on smartphones is an infection control concern with cross-contamination likely from bacteria laden devices (10).

Defamation is a risk if defamatory statements are uploaded onto social media platforms, venting frustrations about colleagues. Barriers between work and private matters can be distorted, with unintentional, inappropriate sharing of information, resulting in disciplinary procedures and undermined careers (12).

Social media facilitates learning and improves communication. Networking is commonplace and access to medical information instant. Interactive blogs encourage comment on practice, opinion and information dissemination.

Social media affords opportunity for professional development. Patient safety is paramount and distraction should be eliminated. Policies with reference to cross infection, smartphone free zones and consent for photos need to guide practice. Legal, professional and ethical nursing obligations underpin social media policy peri-operatively.

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OP72

Strong against surgical smoke

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Perioperative professionals and patients are routinely exposed to surgical smoke, plume, and aerosols produced by instruments used to dissect tissue, provide hemostasis, and drill or saw bones. Examples of smoke producing devices include, but are not limited to lasers, electrosurgical units, ultrasonic units, cautery units, high speed drills, and burrs. Anything that produces heat can produce smoke or aerosols. Smoke and aerosol-generating procedures can pose health risks. Each year, an estimated 500,000 workers, including surgeons, nurses, anesthesiologists, and surgical technologists, are exposed to laser or electrosurgical smoke.[1] Although the long-term effects for healthcare workers exposed to surgical smoke remains unknown, there is a need to be proactive and prevent any potential harm. Engineering controls and personal protective equipment should be used to protect all staff and patients from exposure to smoke byproducts.

A critical step in minimizing exposure is for patients and the perioperative team to increase awareness of the environmental hazards related to surgical smoke and aerosols produced during operative and invasive procedures. This session will describe essentials for developing, implementing, and auditing a smoke evacuation program. Setting up a smoke evacuation program requires dedication from key stakeholders to implement team strategies that work toward reducing and eliminating surgical smoke to create a sustainable program.

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Key words: Surgical smoke, surgical plume, smoke evacuation

PARALLEL D3
DISTRACTIONS IN OR

OP73

From Brussels to Goma, Democratic Republic of Congo

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Key words : OR management, educationnal program, improvement of quality of care

The Free University of Brussels, through its Academic Hospital and supported by the European Community, has set up an ambitious training project in Goma, in the north Kivu province of the Democratic Republic of Congo. This project intends to improve the quality of the health coverage by strenghthening the health workforce in reference centers of the area of Goma.
In this context, as O.R. nurse manager, accompanied by the manager of the anesthesiology department, we were mandated to assess the basic needs of these hospitals through a first observing mission of five days. This assessment was conducted in close collaboration with resource persons designated within the Congolese healthcare teams. During a session of presentation of our observations, we defined with the teams on the spot the main lines of the trainings to be set up.
The targets we set were to better organize the operating room and sterilization unit, to manage an operating program according to the avaible ressources, to secure the working environment, to ensure patient safety by introducing quality approaches such as the use of the checklist or reporting adverse events, to improve anesthesic techniques as well as nursing techniques through practical training adapted to the field reality for better overall care of the patients.
Other specific needs were identified such as the completion of therapeutic guidelines, the management of bleeding emergencies or updating knowledge in resuscitation of adult and newborn. Those demands were integrated in a tailormade program of theorical and practical courses given during a second mission on site.
The following presentation details the observations and the actions taken to achieve these stated objectives.

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OP74

War in the OR

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- *OR assistant in The Netherlands responsible for trauma, endoscopy and surgery.*
- *Working for Ministry of Defence as an OR assistant and sent to Bosnia, Kosovo, the Caribbean and Afghanistan(3 times) .*
- *Past president of the Dutch Association of OR assistants the LVO*
- *EORNA board member*
- *Member of the EORNA congresscommitee*

One of the priorities of the Dutch army is providing quality care in a military (NATO)mission area. The Dutch army has insufficient qualified OR staff and therefore they work with OR reservists from specialised hospitals. These OR nurses are recruited and appointed as a reservist from trauma-centres.

The education of this function for the army is a 6-week military basic training witch end with the rank of first Lieutenant. After that there is an annual basic training and education with weapon management.

A mission-oriented training take place for every mission addressed to the current political and violent situation in the country. A Dutch mission for OR staff in violent conflicts as Iraq and Afghanistan is about 3 months. Dutch OR staff can do their OR job in tents, ships, containers, hospitals.

The task of the Dutch OR assistant is not only scrubbing, but also assisting the surgeon, circulating and managing the OR. The OR assistant can perform those tasks and is widely applicable on all specialties. Their working areas are at this moment: Afghanistan, Somalia and South -Africa.

Working in these areas has always been multidisciplinary and multicultural. Cooperation with countries as Germany and America is excellent and there are no problems by language.

In this lecture I will show you a short presentation of a mission in Kandahar, Afghanistan. Not only working in the OR, but also what it brings more than just work: *tension, anxiety, stress, human suffering but also surgery you never will see or practice at home.*

OP75

Too much noise in the operating room. Are you involved?

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Keywords
Noise level, patient safety, sound level, working condition

Background

Noise is a natural phenomenon and is omnipresent in our personal and professional lives. Very few studies have been carried out on noise disturbance in the operating theatre. Nevertheless, excess noise has direct (hearing) and indirect impact in the OR theatre.

Focus of interest

During the perioperative period, patient and caregivers are subject to a multitude of background noises linked to factors such as environment, human behavior (non-professional conversations), use of material (motors) and equipment (alarms), nursing, anesthetic and surgical procedures.

Theoretical framework

Liu E. and Tan S. showed, in a study on patients' perceptions of the noise level in the OR, respectively 32% and 33% of patients were affected by too noisy induction and recovery stages. (1).

Conclusions and implications for perioperative nursing

Some calm and silence are recommended to ensure a clear atmosphere around patient's care.
Sympathetic ear, choice of words and proper intensity of voice seems beneficial to all staff and patients. Staff awareness about practices in terms of knowledge, skills and expertise is enable to play a preventive role against bad noise in the operating room.
OR theatre authorities may implement information and awareness sessions, making the choice of appropriate equipment, building specific procedures or visual warning means overtaking excessive sound level. Caregiver needs to realize that noise, above a certain sound level, creates risks in their daily practice. According of the subjective perception and unknown effects of noise, a multidisciplinary team consensus will be required to control it and his bad effect.
To end the presentation, speakers will prove, short video sequence in support, that our daily work is polluted by noise and it is easily possible to act in the interest of all.

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OP76

Impact of noise pollution in the operating room

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Background: Noise is one of the greatest threats to the health and quality of life of people in the developed countries of the Western world. The noise is one of the stressors which have big impact in patient who goes for an operation procedure and should be avoided in the environment of the operating room.
CDC recommends the permitted limits for noise intensity is 35 dB during the night and 40 dB during the day. The noise level exceeding the boundaries have a negative impact both psychological and patient safety due to errors which may occur on the part of health professionals.
According to studies, there are two main noise sources were:
• Noise from machines (monitor, alarms, respirator system etc)
• Noise from Staff
Purpose: The aim of this paper is to investigate the level of noise in the operating room during the induction of anesthesia and how it affects the patient psychologically and in safety. In addition to the extent that it affects communication in the anesthetic team.
Methodology: we have two teams of 50 patients each. One was the control team (team A) where went in OR without any control of sound and noises and another one (team B) who went in OR in a quiet environment as a result of staff cooperation. In both teams we record the decibel level with a sensitive decibel meter.
At the begging of research we record the noise of staff and the noise of the machines.
After the procedure we visited all the patients in their rooms and asked Closed Format Questions about the experience of the anesthesia and if they remember something at the time of anesthetic induction.
Results: The main level of noise was 71 dB, it means 50% above the limit of CDC. This cause several problems in procedure with most important the misunderstandings and errors in staff communications. 50% of the patients of team A, remembered the noise and make some complains about this.
Conclusions: The noise levels in operating rooms are above the limits established by federal regulatory agencies, in many cases by as much 50 dB. These noise levels have been associated with adverse consequences on the health and performance of staff and on patient safety. Much of this noise is generated by operating room personnel and equipment and it is avoidable.
Key Words: Noise, operating room, Db, staff communications.

OP77

High Performing Teams; Skills Required for Success in a Chaotic Perioperative Environment

Voight Patrick
USA

KEY WORDS: High Performing Teams, Leadership, Effective Communication, Teamwork, Collaboration

Perioperative Departments can be one of the most unpredictable work environments in the hospital. Perperative personnel must be prepared and ready for any type of patient or situation to occur without advanced notice. Working in today's Perioperative environment takes skill, motivation, teamwork, collaboration and leadership. Coupled with the lack of predictability, the work environment is further challenged with poor communication between providers, lack of teamwork and poor operational patient throughput. Due to the constant changing environment, Perioperative staff must learn to transform unproductive confusion and disorder into controllable challenges - with less stress and greater clarity. A high-performance Perioperative team is a group of staff with specific roles and complementary talents and skills; aligned with and committed to a common purpose; who consistently show high levels of collaboration and innovation; that produce superior results. The high-performance team is regarded as tight-knit, focused on their goal and nothing else. Team members are so devoted to their purpose that they will surmount any barrier to achieve the team's goals, high quality and timely patient care.

Objectives:

5. Participants will complete a self- assessment on how they are viewed by others as a leader or team player
6. Participants will identify skills required to lead in highly complex environments
7. Participants will discuss core characteristics of high performing teams in critical environments and techniques to develop skills to further enhance team work
8. Participants will learn how to apply the appropriate techniques to alleviate, clarify and eliminate chaos within your control.

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PARALLEL E3
THE HAZARDS OF SURGICAL PLUME

OP78

To examine diathermy smoke evacuation practices, attitudes and awareness of this health risk among perioperative nurses and surgeons

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Ireland

Background

Surgical smoke presents a potentially serious occupational health hazard, shown to be as mutagenic as cigarette smoke (Barret & Garber 2004). Ablation of one gram of tissue produces a smoke plume with an equivalent mutagenicity of six unfiltered cigarettes (Hill *et al.* 2012). Although the long-term effects for healthcare professionals exposed to surgical smoke is unproven, there is a need to be proactive and prevent any potential harm (Association of Perioperative Practice (AfPP) 2009).

Method

The study was conducted in the theatre department of five hospitals (three public and two private hospitals) using a quantitative descriptive approach. A twenty-three item questionnaire adapted using two previously established questionnaires (Spearman *et al.* 2007, Ball 2010) was the chosen instrument used. The questionnaire was distributed to a total of 280 perioperative nurses and surgeons with a response rate of 41.8%. Data analysis using SPSS (Statistical Package for the Social Sciences) provided descriptive and inferential statistics.

Results

Perioperative nurses and surgeons' compliance with smoke evacuation recommendations was not consistent. The private hospital respondents (89%) reported more frequent use of smoke evacuators than the public hospital respondents (53%). However, the recommendations of always using a smoke evacuator for every surgical procedure using diathermy were not adhered to significantly across both hospital sectors. The majority of participants (95%) believed that diathermy smoke was harmful but unless the healthcare professional had experienced health problems from the smoke they reported not being very concerned that diathermy smoke was a risk to their health. Findings indicated that there was a deficit in knowledge, education and training on the importance of diathermy smoke evacuation, the available devices and the effective methods to remove diathermy smoke from the surgical environment. Few participants (13%) reported the existence of diathermy smoke policies and of those that had policies they did not always follow them. Staff complacency or lack of education (46%) was the greatest reported barrier to best practice of evacuating diathermy smoke.

Conclusions and Implications

It is necessary that a mandatory diathermy smoke education programme incorporating policy development is formulated to include areas of poor compliance and knowledge identified in this study. Perioperative nurses' assertiveness in overcoming the barriers to drive change in clinical practice will increase as a result. Auditing of the implementation of this programme is recommended. Prioritising the health and safety of employees in the surgical environment is advocated through the provision of routine risk assessments, airborne levels monitoring and occupational health checks in relation to diathermy smoke exposure. Replication of this study is suggested to assess the implementation of diathermy smoke evacuators in all surgical settings.

OP79

Clearing the Air for Safety

Scroggins Robert
USA

Key Words: Surgical Smoke, Patient Safety, Health Risks

The operating room is often considered a safe place. However, there are also many hazardous conditions, one of which is surgical smoke. Surgical smoke contains many hazards including physical, chemical and biological. These hazards are known by most operating room nurses to be dangerous for them, however many do not realize the hazard to the patient.

By utilizing practices and products to remove surgical smoke, we can protect ourselves and our patients from the hazards associated with exposure to the contents of surgical smoke. These hazards come in three forms, Particulate, Chemical, and Biological.

These properties each present different hazards and biological responses to exposure. We will look at the biokenetics of particulate exposure and the movement of nanoparticles from the respiratory system to all organs in the body (1,2), biological responses to chemical exposure (3,5,6) and disease processes related to biohazard exposure in smoke (4,5,7).

By understanding the hazards and effects, we can formulate a plan to safely remove this hazard from the operating room. This plan should include education, policy development and implementation, and selection of proper equipment.

Utilizing the theoretical framework of Patricia Benner's "Novice to Expert" and Kurt Lewin's "Change theory" we can put together a successful program to eliminate the hazard and facilitate necessary behavioral changes that will, in the end, make the operating room safer for staff and patients.

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OP80

Surgical plume related nursing research results in Turkey

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Surgical plume inhalation is an occupational hazard in the operating room departments. Surgical team and patients are routinely exposed to the surgical smoke plume generated through thermal tissue destruction. In 2017 the theme of European operating room nurses day is going to be about surgical plume. Every member country of EORNA will arrange meetings and programmes related with theme.

The aim of this study is to provide a critical review through screening of the literature regarding nursing researches about surgical smoke conducted in. Science Direct, Google academic, ULAKBIM, Pubmed, EBSCO, Medline and Cochrane Library databases were screened using the key words "surgical plume", "surgical smoke", "diathermy smoke", "operating room nurse", "Turkey" and "Turkish". Five studies were included.

This review showed that surgical plume inhalation cause symptoms and potential risks like headache, nausea/vomiting, cough, lacrimation, temper, respiratory changes, hypoxia/dizziness, sneezing, throat irritation and hair smell. This review identified some deficiencies in the usage of preventive measures against surgical plume. The Turkish surgical plume researches indicate a lower frequency of smoke evacuator use during the procedures producing surgical smoke. The other important finding of this review is that almost all of the Turkish healthcare institıtions haven't got protocols against surgical plume.

These results suggest that Turkish operating room nurses are not adequately protected from exposure to surgical plume and effective engineering controls for surgical plume in the operating rooms are inadequate. Therefore operating room nurses report symptoms associated with exposure to surgical plume. These results provide an interesting snapshot of surgical smoke management in Turkey, they also indicate that much work remains to be done.

Key words: Surgical plume, operating room nurses

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OP81

Implementation of the AORN Go Clear Surgical Smoke Elimination Program

Walker Nathalie
USA

Presenters	Brenda C. Ulmer, RN, MN, CNOR

AORN has a long history of developing and promoting standards for perioperative professionals. The hallmark of the organization is setting evidence-based practice standards to protect all perioperative patients and team members. AORN's mission is to promote safety and optimal outcomes for patients undergoing operative and other invasive procedures. Its success is demonstrated by the number of healthcare facilities in the US and around the world who use AORN's Guidelines to establish practice standards of care. The Guidelines often form the backbone of patient care for all perioperative team members whenever and wherever operative and invasive procedures are performed.

In the spirit of taking the next step to assure the best possible perioperative environment, AORN established the Go Clear Smoke Free Hospital Recognition Program 2016. This program will explore the components of the smoke elimination program and detail its implementation in the perioperative care setting.

Objectives	**Content (topics)**	**Timeframe**	**Presenter**	**Teaching Strategies**
Educational objectives	***Outline of content for each objective***	***Timeframe in minutes***	***Presenter name/subject matter expert***	***Teaching strategies to be used***
1. Relate dangers of surgical smoke and overview of presentation	I. Effects of breathing hazardous chemicals II. Introduction of presenters and contents of presentation		Brenda Ulmer	Lecture, PowerPoint
2. Identify components of AORN's Go Clear Smoke Free Hospital Recognition Program	I. Formation of the Go Clear program II. Implications on practice and patient and staff safety		Brenda Ulmer	Lecture, PowerPoint
3. Discuss success of implementing the Go Clear program	I. Choosing a system II. Educating staff and physicians III. Using appropriate work practices IV. Monitoring compliance		Brenda Ulmer	Lecture, PowerPoint

PARALLEL F3
ROLES, PRACTICE AND KNOWLEDGE IN OR

OP82
Baby boomers, generation X, generation Y. Which vision on the operating theater?

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Key words: OR Management, generation y, multigenerational management, nursing teamwork

Background

Problematic of intergenerational conflicts is present in our operating theaters. It is due to different socio-educational characteristics of each generation. The lengthening of working life requires coexistence of at least three generations. Operating theater's managers must consider that to ensure retention of staff and, therefore, efficiency and quality of care in the management of operating theaters.

Focus of interest

Generations Baby boomers (1946-1964), X (1965-1980) and Y (1981-1995) have a different perception towards work, as well as different constraints and management. For instance, the first will perform supplementary hours by conviction, the second if constrained and the latter does not want to do it. Generation Y is confident, ambitious, connected to latest digital technologies, and does not dissociate work from pleasure. The aged personal want reducing her workloads, her physical stress,... The hardness of the work must be in proportion with their human resources. The manager of operating theater has his own perception of this situation and staff's capacities or competences.

Method

During the EORNA Congress in Rome in 2015, I presented a research concerning the nurse manager of the operating room in connection with Generation Y and intergenerational conflicts. Following this study, I have continued my research by questioning nurses from different generations. They were present in two symposia in French speaking Belgium. The survey has included open questions and multiple choice questions to improve the turnout. The goal of my research is to study the personal positioning of operating room nurses about their qualities, shortcomings, working conditions, continuing education. The results of the study were correlated with those of the first study on the perception of the head nurse and literature.

Conclusions

This allowed the author to correlate the differences in perception between nursing leaders and teams.

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OP83

Surgical nurses opinions and practices related to patients discharge information: An example from Turkey

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Turkey

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Goal: The study was undertaken to determine the opinions and practices of surgical nurses related to discharge of patients after surgery.
Method: This descriptive study included 192 surgical nurses. Data were obtained with a questionnaire designed by researchers.
Results: ***Ninety***-five percent of nurses stated that patient discharge informations are given by nurses. However, 87.5% of the nurses said that this responsibility belongs to the physician. This study found that nearly half of the nurses give general discharge instructions to patients and 71.9% of them provide specialized discharge instructions. Moreover while most nurses plan the discharge instructions after determining the discharge time, just 28.1% of them do so when the patient is actually hospitalized. Discharge instructions are usually given verbally (70.6%), in the patient's room (66.9%), in a quiet area (76.9%), and are based on individual needs (70.0%). Since wound care is very important (57.5%), at least one family member is usually included at this meeting (84.4%) during which nurses monitor the patient's stress levels (66.4%). Notably, half of the nurses indicated that the patient discharge information given by them is quite adequate.
Conclusion: Our results show that discharge information is usually given by nurses, although they believe this is the physician's responsibility**.** Furthermore, discharge information planning should occur during the patient's hospitalization and not as they are about to be discharged.
The implications for perioperative nursing: Discharge informations are vital to improving patients' outcomes at home. Although our study encompassed surgical nurses' opinions and practices on this topic, additional research is needed.. This study focuses on some of the issues which need to be addressed.
Key words: discharge information, surgery, surgical nursing.

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Preferred type of presentation: Oral

OP84

Do satisfied nurses always show extra role behaviours? The moderating role of empowerment

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Turkey

Background: Job Satisfaction, which is defined as a positive emotional reaction to a particular job (1) is an important determinant of many work-related behaviors, including organizational citizenship behaviors (OCB) (2,3). OCB is defined as; extra-role behaviors that fall outside the rubric of task performance (4). It constitutes altruistic, voluntarily actions that are taken with no expectation for recognition or compensation. Based on the definition of OCB, it is obvious that it is highly important in health care settings, where the output is human health. Although researchers show evidence that OCB is positively affected by job satisfaction, other variables which may influence the strength of this relationship is under-studied. However, it is known that satisfaction may have very weak influence on nurses' behaviors due to the negative impact of other factors.

Purpose: Based on the gap in the literature, we aim to propose and test a model, which tries to examine the moderating effects of psychological empowerment on job satisfaction and OCB relation among perioperative nurses who have the key positions to determine the health quality of surgical units.

Method: Data was collected from 222 perioperative nurses through an online survey. Scales used are the Psychological Empowerment Scale, the Minnesota Satisfaction Questionnaire (MSQ), and the OCB Scale (5-7). Data analyzed through multiple regression analysis via SPSS-21.

Results: Results show that two dimensions of psychological empowerment moderates the relationship between job satisfaction and OCB. More specifically, when perioperative nurses perceive that their work is meaningful and they have sufficient competency to practice their profession, their satisfaction leads them to show more extra role behaviors and contribute to the functioning of organizations more.

Conclusion: The results of this study can help perioperative nurses in developing strategies aimed at promoting their OCB via psychological empowerment.

Keywords: psychological empowerment, job satisfaction, organizational citizenship behavior.

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OP85

Promoting a scientific culture amongst newly graduated operating room nurses in France

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France

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Background

There has been in France for several years a desire to increase nursing research capacity and promote knowledge transfer. This development is facilitated by the recent introduction of nursing education in Higher Education and by the provision of public funding to support nursing research.

In this context, French operating room nurse organizations (practice-UNAIBODE and education-AEEIBO) have worked together to promote research and evidence based practice in this filed of nursing. A society of scholars (SOFERIBO) was created for this purpose.

Pending a reform of operating room nurses (ORN) education on a master's format, ORN leaders wished to promote scientific culture among future ORN and more broadly in this nursing specialty.

Aims

- award an annual prize to the best research project carried out by a newly graduated ORN.
- promote the dissemination of knowledge in perioperative nursing.

Project

Each year during the annual conference organized by the association of ORN (UNAIBODE), a prize will be awarded to a research project conducted by a newly graduated ORN.

Criteria and indicators were developed to assess the quality of the studies spontaneously submitted by newly graduated ORN. A peer review committee was set up to implement the evaluation process.

The award is given during the conference, and the winner is invited to present her research in plenary session. The award recipient is also supervised to write an article to be published in the national ORN professional journal (Inter bloc-Elsevier).

A communication campaign was launched by ORN organizations to publicize the existence of that price to ORN educators and students.

Results

The project was implemented since 2013. 4 ORN graduates submitted their study and 2 prizes were awarded. Since this time 8 to 9 studies are submitted each year. This project seems to bring positive outcomes and is instrumental in the change of ORN's representations about research and evidence based nursing.

Discussion

Several lessons have been drawn since the implementation of this project. Disparities in methodological approaches used by ORN students were identified.

ORN students' competencies in literature search and critical analysis of scientific articles seem to be weak. In addition, the skills and competencies required to disseminate adequately research findings need to be improved as well.

These findings have led ORN educators to introduce changes in the existing curriculum and to shape the future masters degree programme in preparation.

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PARALLEL D4
CHILDREN IN OR

OP86

Improving knowledge about anesthesia and surgical procedures among children and parents in the pre-anesthesia clinic

Gelber Pazit Shahar
Israel

Background: The child before surgery may experience uncertainty, fear, therefore stress and anxiety and express those feelings with behavioral and physical manifestations, in the peri-operative period(1). Parents may also experience: anxiety, discomfort, helplessness and confusion that may have an adverse effect on the child(1,2). Children and parents who get appropriate preparation showed a significant increase in knowledge and reduced level of anxiety before the operation (3).

Rationale: developing a common "preparing for a surgery" tool, for parent and child that will providing uniform information, help them to understand what is expected, strengthen their sense of security and reduce the anxiety and the fear of the unknown.

Study objective: improving the knowledge of child and parent about the preparation for surgery, anesthesia and post-operative period, increasing the child's involvement in the preparation process Within 3 months of implementation of the proposed preparation intervention in the clinic

Intervention tool: was a video film describing the peri-operative process, to be watched by parents and children in the pre-anesthesia clinic.

Methods: control questionnaire (identifying the learning needs of parents and the children),preparation the tool (video film). Intervention**:** The nurse explanations was supplemented by a video film watched by parents and children. Post intervention: questionnaire filling by parents, data analysis, lessons learned, using the film.

Results:

- Level of knowledge improved by 25.6% after the preparation with video film, compared to no video.
- 100% of the children and parents watched the video film and prepared together.
- As parent's understanding of the peri-operative process increased, their sense of Confidence also increased

Conclusions:

- The intervention: increased the child and parent's knowledge regarding the peri-operative process and increased the involvement of children in the preparation process.
- The increased knowledge helped increase parent's and children's confidence and reduced their anxiety.
- The video can be implemented in other pediatric departments.
- By uploading the video film to the network and youtube parents and children may watch it at home, in a familiar and pleasant atmosphere.
- The video must be filmed in Other relevant languages .

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Type of presentation: oral

Key words: Children, Anxiety, Distress, Preoperative preparation, Parental education.

OP87

Effects of Pediatric Surgery Nurses' Peripheral intravenous Catheterization Success on Catheter Related Complications

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Background: Peripheral intravenous catheterization (PIC) is the most commonly encountered intravenous attempt by nurses. Nurses have a key role on catheterization to success and ensure the continuity [1]. Pediatric surgical nurses are able to PIC with children who have difficult intravenous access [2].
Method: This descriptive study was planned for examining the effect of Pediatric Surgery Nurses' PIC success on catheter-related complication. The study seeks to answer the fallowing question; is PIC success affect the complication? This study enrolled pediatric surgery patients who under 18 years and applied peripheral catheter between April and July of 2016. Patient was evaluated with difficult intravenous access tool (DIVA) before cannulation [3].
Results: The age average of patients is 5.5±5.6 and 68% was male. The number of IV access was 1.9±2.0 since hospitalization of patients. Eighty one percent of IV cannulation was executed by one nurse and 82% helped by other staff. The average of DIVA score was 3.2±3.4; %50 had received 3 or more scores. Rate of first attempt success was 49%. There isn't difference between children who had difficult intravenous access and who hadn't according to first PIC attempt. The number of attempts made to cannulation 3.0±3.8 and the passing time for cannulation was 12.2±14.7 minutes. Seven percent of patient wasn't applied PIC. Complications of PICs included IV blockage (14%), infiltration (6%), and extravasation (12%). According to success of first attempt, there is no differences was detected according to infiltration/extravasation, but there is statistically different to IV blockage ($p<0.05$). There is no differences between complications according to DIVA score ($p>0.05$).
Conclusions: Half of pediatric surgical patient has difficult intravenous access. They also in high risk group in terms of complication. Half of pediatric surgical nurses was successful in first PIC attempt. Success of first PIC related to blockage in catheter. Difficult intravenous access wasn't affect complication.
Implications: It is suggest that patient with difficult intravenous access can be determined by using DIVA and experienced pediatric surgical nurses obtain intravenous access. Pediatric surgical nurses' awareness should be increased about complications.
Keywords: pediatric surgery, periferal intravenous cathater, complication

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OP88

Bariatric Surgery in Israeli Adolescent's

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Background:
Childhood and. Adolescent obesity has been identified as one of the important public health concerns . The prevalence of childhood obesity has reached epidemic proportions in the USA and in other nations around the world, including both developing and developed countries. Adolescent obesity has been identified as one of the important public health concerns. Conservative weight management programs have shown only mild / modest weight loss results. There has been increasing world- wide enthusiasm for bariatric surgery for selected adolescent morbid obese patients .

Methods:
Retrospectively collected data from all patients undergoing bariatric surgery at our institution since the inception of multidisciplinary adolescent weight loss program in 2011. Baseline data collected included age, gender, body mass index, comorbid conditions and patient/family compliance. Postoperative data collected included the length of stay, operative morbidity and percent excess weight loss - body mass index at 3-month intervals.

Results:
Thirtyeight have undergone laparoscopic sleeve gastrectomy at our institution since May 2011. Of these, 20 were female and 18 were male. The mean age was 15.7 ± 2.3 years of age. The mean preoperative weight was 139 ± 21 kg with a body mass index of 46 ± 9 kg/m. There were no intra-operative complications, and single postoperative complications included re-laparoscopy in one patient for bleeding at stapler line. The mean length of stay was 2.2 ± 1.1 days. The mean follow-up was 14.9 ±1.4 months. The percent excess weight loss at 3 / 6 / 12 months, postoperatively was 32%, 38%, and 42%, respectively, in those who had reached these time points. Significant leak of the compliance (25%), was the major issue in the post operative follow up.

Conclusion:
Laparoscopic sleeve gastrectomy is a safe operation and represents an effective part in the treatment strategy with approximately 40% excess weight loss at 6 months of follow-up. Multidisciplinary approach is standard of care and local national surgical guidelines for adolescent patients should be reconsidered and standardized worldwide.

OP89

Reduction in parental anxiety during the child's operation in general anesthesia

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Background
Parents to children undergoing anesthesia and operation are experiencing fear and anxiety. Anxiety in children is correlated with the parent's level of anxiety. It is therefore appropriate to decrease parental anxiety.
Purpose
To determine the impact on parental anxiety during anesthesia induction and operation when using: a video showing a pediatric anesthesia induction, parents experiencing increased care during anesthesia induction and parents receiving an intraoperative progress report by telephone.
Methods
Parents to children who went through surgery in general anesthesia were included consecutively in a period of 2 months. Control group the first month (*n* = 19) Intervention group the second month (*n* = 15).
Parents in the intervention group viewed a video showing a pediatric anesthesia induction, they experienced increased care during anesthesia induction and the parents received an intraoperative progress report by telephone.
Parental anxiety was measured with the Spielberger State-Trait Anxiety Inventory [STAI] at two time points: during the operation [T1]; and post-operatively [T2].
Results
The intervention group reported significant lower state anxiety scores in both T1 (*P* = 0,000) and T2 (*P* = 0,041). The number of very anxious parents (state $\geq$ 46) were reduced in T1 (control group *n* = 11; intervention group *n* =1).
Implications for Practice
It has been decided to implement the intervention to increase the information level and decrease anxiety in the perioperative setting. A new and improved video is under construction for our website, and parents to children undergoing surgery for more than 1 hour, will be offered an intraoperative progress report.

Keywords: parents, anxiety, intervention, anesthesia, operation, video, telephone call.

OP90

Guided Growth.: The use of eight-plate technique for temporary epiphysiodesis, aiming to the correction or angular deformities and/or leg length discrepancy (LLD) in children: presentation of our experience in the General Hospital of Chania Crete Greece

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2. Operation Room Registered nurse

Background: Angular deformities or leg length discrepancy, vary from idiopathic, congenital or acquired causes. they are not uncommon in pediatric population. Traditional surgical treatment comprised of lengthy major operations sutch as osteotomies or application of frames. Eight-plates is a recent tand innovative technique aims in guiding growth towards the desied efect. It is revolutionary, since it is minimally invasive, "nature assisted" and evening reversible.
Aim: To show our experience in the use or eight-plates in correcting angular deformities or leg length discrepancy (LLD), present the technique and our clinical results, discuss the efficacy of the technique and the beneficial impact to our patients
Material and methods: This method has been used in 13 patients, 8 of them for angular deformities and 5 of them for leg lengthy discrepancy. They were operated on between the period December 2012 to May 2016. 8 were girls and 5 were boys and the range of age was 4 to 14 years old.
Results: This technique shows the optimum results after a certain lengthy of time, depending on the remaining growth of the child. therefore our results can be lasted as mid term results.
3 of the children have completed treatment and plates have been removed. 1 had a revision/ re application of plate 11 months after the first surgery and the rest are still being followed up with very satisfactory . All surgeries were under general anesthesia. Zero infections were reported and all patients were discharged the day after the operation, allowed to fully weight best, and return to fully activities.
Conclusion: Results indicate that Eight-plate is an effective and safe method for the correction of LLD or angular deformities in children. It appears to be economically efficient, less painful and traumatic for the Paediatric patient and with less complications in comparison to other traditional techniques.

Keywords: eight-plate, hemiepiphysiodesis, angular deformities, leg length discrepancy.

PARALLEL E4
RESEARCH WORK IN FUNCTION OF PATIENT CARE

OP91

Etthical problems in perioperative care and their impact on patient safety

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Background

Perioperative teams are focused on professional and safe patient care. Despite of facts that they use a number of tools: construction arrangement of operating rooms, modern equipment and instruments, new materials, drugs and sophisticated diagnostic methods and practices based on scientific evidence, the most important tool throughout the perioperative process is just health care worker, and quality of his/ her care. Research demonstrates that poor quality care is also unethical.

Purpose

This study was conducted to describe practices that affect patient safety:

- identify breaches of security and hygienic procedure of perioperative care
- identify persons who commit these breaches
- articulate the reasons for which the breaches occur
- staff behaviour in relation to ethics

Methods

The methodology utilised for this study is an ethnographic research. The research has been undertaken as an observation of perioperative team in Teaching Hospital Motol in Prague and Karolinska University Hospital in Stockholm. The results were also compared with recommendation and standards of WHO, CDC and other institutions related to perioperative care and with ethical codes of nurses and physicians.

Results

The most frequent breaches of hygiene have been observed shortening the time of hand hygiene, the unnecessary opening the operating room doors, the problems with wearing surgical caps, masks and jewelry. The missing of WHO Surgical Checklist during the surgery was the most common violation of patient safety.

Conclusion

The health care professionals have an adequate knowledge about safe and hygienic patient care in operating room. If they break safety and hygienic policy, they also break the ethics of health care workers.

Key words

Perioperative care, safety, security, patient safety, medical ethics, nursing ethic

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OP92

Glycemic control of surgery patients and effect of patient outcomes

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Purpose: Surgical treatment of patients before and after attempts to determine blood sugar levels and treatment protocol is to assess the impact on the outcomes of the patient.
Methodology: Research is a descriptive and retrospective study. The research population between March 2015 and March 2016 date in the Buca Seyfi Demirsoy State Hospital General Surgery constitutes 921 patients who met the clinical surgery in which patients participate in research by 3767. The whole population is included in the sample. Data were collected retrospectively from hospital database with patient identification form is created using literature. The statistical analysis of the data frequency, percentage, mean, standard deviation, Wilcoxon, Mann Whitney U and Kruskal Wallis tests are used.
Results: Patients who attended the study were 38.9% middle-aged (45-59 years), 54.6% female, 17.8% previously diagnosed with diabetes, 11.6% with chronic diseases other than diabetes, 32.1% which previously operated, 27.1% has also developed postoperative complications. 49.4% of patients with diabetes found to be blood glucose values moderately high (110-150 mg/dl) before surgery, 48.8% of patients with diabetes founded too high (151-200 mg/dl) blood sugar levels after surgery. Preoperative mean blood sugar in patients with diabetes 146.16±40.80, without diabetes are mean 103.41±22.59 and there is a significant difference between the statistics to the analysis ($p<0.005$). Patients with diabetes postoperative mean blood sugar are 168.02±47.66, non-diabetic patients are 112.70±26.38 and there is a significant difference between the statistics to the analysis ($p<0.005$). Postoperative duration of stay in hospital for at least 2 days to 21 days, mean 2.86±1.74 days. Postoperative duration of hospital stay in patients with diabetes are mean 3.31±2.33, patients without diabetes are mean 2.77±1.58 and there is a significant difference between the statistics to the analysis ($p<0.005$). İn the case of complications after surgery in patients with diabetes are 40.2%, patients without diabetes are 24.3% and there is a significant difference between the statistics to the analysis ($p<0.005$).
Conclusion: Surgical treatment of the patients preoperative and postoperative blood glucose levels differ significantly and it has been determined that the effect on the results of the patient. In this respect the planned surgical treatment will provide effective glycemic control for patients follow-up, treatment and care, it is thought that the development of the protocol as necessary.
Keywords: Glycemic control, Surgery patients control, Blood sugar.

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- For feasibility of the study written permissions of ethical committee (2016/ 06 /29 - No:1) and hospital (2016/ 04/ - N0: 65516083.900.99)

OP93

The Effect of Different Music Types on Turkish Patients' Anxiety in Preoperative Period: A Randomized Controlled Trial

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Background: It is known that listening music is an effective way to reduce patients' anxiety in preoperative period(1,2,3). One of problems that studies conducted to determine the effect of music frequently encountered is music selection(4).
Aim: The purpose of this study was to determine effect of three different types of music on Turkish patients' anxiety in preoperative period.
Methodology: The sample of this randomized controlled trial included 180 patients, who had undergone nose and throat surgery in a public hospital, in İstanbul. By randomization, patients were divided into four groups including 45 patients in each. While routine care was provided to control group, natural sounds, Classical Turkish Music and Classical Western Music were listened for 30 minutes to the first, second and third groups, respectively. To assess pre-and post-music anxiety, the Spielberger State Anxiety Inventory (SSAI) was used and to assess physiological response to music, systolic blood pressure(SBP), diastolic blood pressure(DBP), heart rate(HR), peripheral oxygen saturation(SpO_2) and serum cortisol level were checked. This study analyzed data by using descriptive statistics, t-test, one-way-ANOVA and advanced analysis tests.
Results: This study determined that post-music SSAI scores of all groups showed decrease comparing to scores before music, however difference wasnot significant($p>0.05$). This study compared SSAI scores of patients who listened natural sounds with control group and determined that scores of those who listened natural sounds was significantly lower($p<0.05$). This study found that in intervention groups, SBP and cortisol levels significantly reduced after music in comparison with before music.
Conclusion: The findings of this study showed that natural sounds, Classical Turkish Music and Classical Western Music have effect on reducing patients' anxiety in preoperative period and listening to natural sounds is the most effective one.
Implications of perioperative nursing: In preoperative period, having patients to listen natural sounds and music specific to their own culture in operating waiting room canbe beneficial.
Key Words: Music, preoperative anxiety, serum cortisol level.

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OP94

Inadvertent perioperative hypothermia

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Background: Unplanned intraoperative hypothermia is widely accepted as the cause of numerous adverse events, such as acute coronary incidents, clotting disturbances, wound infection, and pharmacokinetics effects with a negative impact on the occupancy rates of the operation room(OR) or the Postanesthesia Care Unit (PACU). (1-6)

Purpose: To describe the body temperature evolution of patients undergoing arthroscopic shoulder surgery during the perioperative period, to estimate intraoperative hypothermia incidence, to describe possible variables related to temperature loss, to know what interventions are made for the handling of hypothermia in PACU, and finally, to assess thermal discomfort perception.

Method/Design: A prospective study was performed in 164 patients undergoing shoulder arthroscopy. Sociodemographic and baseline characteristics data as well as variables related to body temperature were collected.

Results: Body temperature showed a significant decrease during the transfers from ward to OR and at the end of the surgery, from the OR to PACU (F= 84.0; p=0,0001).

53 patients (34,4%) presented hypothermia before leaving ward, reaching up to 90 patients (58.5%) during the transfer from ward to OR. Rates of hypothermic patients were 85.4% (140) before surgery started, 77.4% (127) at the end of surgery, 95.7% (154) at the arrival to PACU and 92.5% (148) at the end of perioperative period (PACU discharge).

The whole variables were analysed and no relationship was found between them and hypothermia, although there were different distribution of body temperature loss in each group.

In PACU, shivering occurred in 9 patients (5,6%) and forced air warming was used in 14 patients (8,75%). Thermal discomfort was reported by 46 patients (28%).

Conclusions:

Transfers have been identified as critical events. Noteworthy, we detected that more than 30% of patients were hypothermic before leaving ward. Large preoperative fasting, not appropriate clothing, and lack of knowledge about body temperature loss implications, might explain our finding.

Key words: Hypothermia, thermoregulation, unplanned, perioperative, arthroscopy, handling, temperature, and outcomes.

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PARALLEL F4
PROFESSIONALISM IN THE PERIOPERATIVE ENVIRONMENT - PREVENTING COMPLICATIONS

OP95

The pressure sores incedence in surgical patients and effects of selected risk factors for intraoperatively acquired pressure sores

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Background: Pressure Sores associated with high mortality, morbidity and health care costs. Patients undergoing surgery are at high risk of developing intraoperatively acquired pressure sores. Despite years of research pressure sores are still one of the most common complications experienced by patients in operating room.
Objective: This study was carried out to determine the pressure sores incidence and examine the selected risk factors predicting intraoperatively acquired pressure sores.
Method: This descriptive, cross sectional, comparative study was performed on 151 patients staying in general surgery, neurosurgery and cardiovascular and thoracic surgery units, having an operation time of two hours or longer, hospitalized for at least 24 hours before surgery and discharged at least 24 hours after surgery. Data were collected through face to face interviews by using Sociodemographic and Clinical Characteristics Form, Intraoperative Pressure Sores Risk Factor Form, Braden Risk Assessment Scale and Pressure Sores Staging Form. Descriptive statistics, t-test, Chi-square test and logistic regression analysis were used for data analyses.
Results and Conclusion: The incidence of pressure soress was found to be 40.40%. Of all the soress, 57 (93.4%) were in stage I and 4 (6.6%) were in stage II. Risk factors predictive of intraoperative pressure sores development included intraoperative vasopressor use, poor skin condition and intraoperative diastolic blood pressure ≤ 60mmHg. However, age, gender, body mass index, albumin/hemoglobin/hematocrit levels, type of surgery, length of surgery, position, systolic blood pressure, diabetes mellitus, cardio-vascular diseases, comorbidities and use of warming blankets were not associated with intraoperative pressure sores development. Besides, the use of the Braden scale for determining pressure sores risk for intraoperative patients was ineffective.

Key Words: Pressure sore, operating room, nursing

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OP96

Our experiences of preventing the pressure ulcers in operating room

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Background: Pressure ulcer is a localized cutaneous and/or subcutaneous tissue damage which caused by only pressure itself or laceration with pressure at the same time and generally occurs on the bone prominent (1, 2). The special patient groups, who are in the operating room, are under the risk of pressure ulcer (2, 3).
Extended operation time and more body parts exposed to pressure, increase the risk of pressure ulcers (2, 4). Additionally, decrease of the nutrition of tissues caused by hypotension, the low body temperature, the immobility of patients during the operation and generally first day after operation, insufficient or wrong protection and support during positioning are the risk factors that can cause pressure. On the other hand, all are avoidable risk factors (1, 2). Providing redistribution of pressure with the using of support surface (3) giving right position to patient can prevent patients from pressure ulcers. All of these attempts are supported by B and C evidence levels (2, 3).
Methods: We reviewed all adverse event reports and the clinical quality indicators results that monthly reported to the OR administrators in order to detect patients who had pressure ulcers in our operating rooms between 2014 and May-2016.
Results: During the period of 2014 and May-2016, 193.902 patients had surgical operation in our institution. We encountered 18 pressure ulcer cases. Six cases were occurred in patients of neurosurgery, five in plastic surgeries, four in urological surgeries, two in general surgery and one in cardiovascular surgery. The general rate of pressure ulcer was 0,009 %.
Conclusion: Pressure ulcer is a common patient safety issue in operating rooms and surgical team's attempts to prevent patients from developing pressure ulcer should be evidence based.
Keywords: pressure ulcer, operating room, surgery

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OP97

Factors Associated With The Development of Pressure Injuries In Surgical Patients. A Retrospective Study

Nicholson Patricia
Australia

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Key Words
Pressure injuries; intraoperative; incidence; risk assessment.

Purpose of the study
The purpose of the study was to identify intrinsic and extrinsic variables that were predictive of pressure injury (PI) formation in surgical patients.

Background
The incidence of PIs is reportedly between 0.4% and 38% in the acute setting (Chen et al., 2012) with a high incidence reported in surgical patients (Connor, et al., 2010; Lindgren et al., 2005; Primiano et al., 2011; Stewart et al., 2007). While it has been accepted that PIs are caused by various forces other contributing factors include immobility, use of anaesthetic agents and repositioning the patient on the operating table (Lumley et al., 2014; Chen et al., 2012), resulting in PIs that exhibit different epidemiological characteristics when compared to non-surgical patients (Chen et al., 2012).

Methodology
This project involved a retrospective, exploratory review of medical records at a major cancer hospital, and one major tertiary hospital, in Melbourne to identify variables predictive of PI development postoperatively in patients undergoing a surgical procedure.

Results
Forty three per cent of patients developed a Stage II pressure injury with older patients found to be more susceptible. Fifty eight per cent of the patients were classed as pre obese, or obese, with a Braden score for the majority of patients rated as moderate to severe. The most common intraoperative positioning included supine and lithotomy. Mean time to development of the PI was 42 hours with the sacrum and heels the most common site (47% and 17% respectively). These finding were similar to the Victorian Pressure Ulcer Point Prevalence Survey (PUPPS) report (2006).

Implications for perioperative nursing
With evidence to support the development of PIs in patients who are immobile and unable to change their position, patients undergoing surgery are at a higher risk than non-surgical patients (Lumbley et al., 2014; Schoonhoven, et al., 2002). This study identified patients risk factors associated with the development of PIs informing practice in the operating theatre. It is important for perioperative nurse to identify factors that may place the patient at a higher risk for developing PIs as they are in a key position to address them in order to prevent them in surgical patients.

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OP98

Professionalism in the Perioperative Environment - an issue for both staff and patient safety

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Background

Teamwork is an integral part of perioperative nurses, however several factors can impede this process having negative effects of patient safety whist in the OR.

The aim of this presentation is to openly discuss the difficult issues that can prevent the smooth running of an operating suite, disrupt communication and promote poor staff health and morale.

The presentation will provide a definition of professionalism, discuss language, confidentiality (phone, internet and social media), bitching, white anting, and setting people up to fail. Each issue will be followed by an appropriate solution to the problem

Implications for perioperative nursing

The presentation will then move to an evidenced base discussion on teamwork and safety; linking poor staff behaviours with an increase in surgical patient adverse events. Recent studies indicate that the main cause (70%) of adverse events can be attributed to the lack team members' non-technical skills, such as, poor communication, poor teamwork, poor leadership, poor decision-making and poor situational awareness (1). All of these vital skills are diminished with poor behaviours. Discussion will continue on how to better care for students, each other, ourselves and our patients and provide a safer workplace.

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PARALLEL G1
QUALITY AND ASSESSMENT TOOLS

OP99

Enhancing Operating Room Efficiency and Perioperative Safety through Visual Management Boards

Mananquil Ronda
USA

As technology advances rapidly, and healthcare industry become highly competitive, Operating Room (OR) and Perioperative Nursing develop into an intricate system. Nowadays, perioperative patient care refers to more than one kind of task. It embodies managing the OR suite, OR team and other factors that promote patient safety and optimal patient outcome. There is critical and burgeoning need to increase patient safety by improving quality of care and efficiency while managing costs and keeping expenditures at a minimum.

The goals of OR management can be summarized as follows: (1) ensure patient safety and optimum patient outcome, (2) enhance productivity and efficiency without compromising quality patient care, (3) maximize cost-containment and cost-efficiency while maintaining quality patient care, and (4) improve satisfaction among patients and OR team members.

Visual Management Board (VMB) provides tools in which both problems and progress can be viewed by personnel. Visibility enables people and organizations to handle jobs and manage problems more easily because it makes information easier to understand and remember. It, therefore, allows staff to manage their work in a safer, much organized and sustained atmosphere. It nurtures open communication, high degree of work ownership, pride in the workplace and continuous improvement. Visualization could facilitate problem solving, improve productivity and leave people satisfied.

At South San Francisco Kaiser Permanente – OR, VMB was implemented because top executives recognize the benefits it could bring to the hospital, its every department, personnel and ultimately its members.

By acknowledging problems and concerns in the OR, making them visible on boards that can be seen by all personnel, deciding on the deadline with which tasks should be taken care of, and identifying person/s who will be responsible to complete tasks, VMB provide more control over issues and workflow, resulting to more problems and issues resolved and increased OR team morale.

OP100

All information in one click (Data management in the operating room)

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Israel

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Hadassah Medical Center, Jerusalem, Israel

Introduction: Perioperative nursing care requires a broad knowledge base in various fields of surgery. In addition, professional nursing practice demands knowledge of advanced and complex surgical equipment, guidelines and protocols. There are many and varied databases that contain all required information.

Aim: To create an accessible database with all the required information that is available to all operating room nurses.

Intervention: Three years ago the management team of the Operating Room at Hadassah Medical Center made a decision to update and transfer all written material to computerized electronic form.

Today each operating room nurse has access to the unique computerized portal, which includes a wide variety of information, such as different types of surgical procedures, Ministry of Health guidelines, hospital guidelines, summaries of staff meetings etc. All this information comes at a "click of a button".

To learn to use the new portal, the operating room team invested in group and individual tutorials.

Today the portal is constantly updated and nurses receive an update when new materials are added by e-mail or WhatsApp message.

The portal allows the possibility to present a lot of information in an accessible and systematic form that is also user friendly.

Conclusion: Easy access to computerized electronic material increases the compliance of staff to read the relevant information online, in real time. As a result, it raises the standards of the perioperative nursing care for the benefit of both the patient and nurse.

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OP101

The Development of a Validated Tool for Assessment of the Non-Technical Skills of Operating Room Nurses

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UK

Analysis of errors occurring within the perioperative environment has shown the underlying causes to be multifactorial and related to a number of non-technical skills, for example communication failure, time pressures and poor professional behavior (1). To improve patient safety therefore, it is necessary to be able to assess and develop these non-technical skills within the operating room nursing workforce. The majority of current assessment tools however are observational in nature and consequently limited to the observational context, which does not provide a consistent measure of an individual. Alternatively the existing questionnaire-based tools relate primarily to organisational factors and job satisfaction rather than individuals' skills.

This study aimed to design and validate a new non-technical skills assessment tool for operating room nurses. The tool was developed using the principles defined by Alden (2) where a large pool of questions is refined by using an expert group of judges. In this case the experts were all university academics specialist in perioperative practice who contributed to both content validity testing, and reliability testing, using a test-retest approach to ensure stability of the tool over time. Analysis of this testing process showed good reliability and validity of the questions and over 70% of the original question pool were suitable for inclusion in the final tool.

This study has produced a new, validated tool for the assessment of operating room nurses' non-technical skills which will be used for further research to explore non-technical skills in the workforce and will also be adapted for use with operating theatre support workers for the purposes of further research. In addition to use for research, the tool could be utilised by either individual nurses or clinical departments to identify development needs as part of a continuing professional development programme.

Keywords: Non-technical skills; patient safety.

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OP102

Improving OR Efficiency through Surgeon Scorecard Use

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USA

Purpose of presentation: Surgery departments drive the revenue for hospitals. "Right sizing" the OR for efficient use of resources (number of rooms, number of staff, and capital equipment) is critical for long term viability of hospitals.
The OR Business Manager is charged to provide the data analysis and support for the Perioperative Directors and OR Governing committees to utilize to make key operational decisions. This session will provide the Business Manager with an example of a surgeon scorecard which may be used to "right size" the number of ORs running and to assist with the creation or revision of block schedules.
Content: This presentation will include a review of key operational performance metrics, an understanding and calculation of the numbers of operating rooms to run an efficient department and the utilization of the surgeon scorecard to determine the amount of time to plan for surgeon block time to insure good utilization.

Learning objectives:
1. Discuss key performance metrics utilized in the creation of a surgeon scorecard
2. Discuss the means to determine the number of operating room to run to insure good utilization of this resource
3 Discuss how a surgeon scorecard can be utilized to establish good OR utilization

OP103

Attitudes of operating room professionals towards patient safety and the facors affecting theses attitudes

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Turkey

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Background: The most significant developments related to patient safety began to take shape following the publication of the "To Err is Human" report by the Institute of Medicine (2000) and the dramatic details results on the state of patient safety have been obtained. One of these results is that medical errors are the fifth leading cause of deaths (1) Damages related to surgical safety resulting death or disability have been the most common adverse events. The mortality rate of patients after major surgery is between 0.5-5% as a result of unsafe surgical care. Postoperative complications occur in more than 25% of patients. More than half of the adverse events in industrialized countries has been associated with surgical care (2). About one in every 94,000 people in 2015 according to a report of adverse events in Minnesota is exposed to the wrong side surgery. Moreover, forgotten strange object was reported among 272 patients between 2009-2015 (3). In a literature review conducted by Manser (2009) on the analysis of accidents and unwanted events between 1950 and 2007, deficiencies in communication and teamwork were found to be the most frequent contributing factors (4). The presence of good communication among institution employees and the establishment of successful communication serve to help employees decrease their stress levels (5).
Aim: The aim of this study is to determine the attitudes that operating room professionals have towards patient safety and the factors affecting these attitudes.
Methods: A descriptive, cross-sectional and correlation research design is used in this study, which was conducted between March 2014 and June 2015 at all university training and research hospitals in the city of Izmir in Turkey. The sample consists of 477 individuals, including nurses, anesthesia technicians and those working in the operating room units of these hospitals as academic members and assistants of the surgery department. Data were collected using the Sociodemographic and Working Characteristics Form and the Safety Attitudes Questionnaire (operating room version). Descriptive statistics, Pearson correlation and multiple regression were used for data analysis.
Results: Results indicated that the attitudes of operating room professionals towards patient safety were at the moderate level. The analysis of the factors affecting the attitudes of operating room professionals towards patient safety shows that team cooperation obtained the highest score while stress recognition obtained the lowest score. In the regression analysis, age, being male and receiving patient safety training explains 15.4% of the safety attitudes of professionals, with the most significant variable being receiving patient safety education.
Implications for perioperative nursing: The results of this study helped team members raise the awareness of operating room personnel on patient safety and create a culture of patient safety. It is therefore recommended to operating room supervisors and administrators that there should be more education programs related to patient safety and that customized orientation programs should be instituted to ensure proper operating room procedures and conduct.
Keywords: patient safety culture, attitude, operating room

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OP104

Nurse's know-how in aseptic realization at day surgery operating room

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Finland

Heli Ruokamo, RN: JAMK University of Applied Sciences (Master of Health Care)

Background and purpose

This presentation is based on the bachelor's thesis of nurse`s aseptic know-how in the ambulatory surgery at the operating room.

As nosocomial infections are relatively common, the researcher's interest was to investigate the nurses' expertise in aseptic operations and situations. (1)

However, the Hospital-acquired infections are the sum of many factors, but particularly emphasized the importance of hand hygiene microbial transfer from place to place. By cutting this route of infection it is possible to at least reduce the microbial infections. (2)

Also, training and orientation for aseptic activities play a key role, as the internalization of correct working methods to promote the early career aseptic commitment and become a part of our daily routine. (3)

The theoretical framework in this study were used previous studies aseptic expertise of nurses and operating room work skills requirements. (4, 5), including Five Moments for Hand Hygiene by WHO (6)

The purpose of this study is to identify factors which may be taken into account to try to reduce hospital-acquired infections, which are expensive to take care of the national economy, as well as producing great human suffering to patients. (3)

Methods

The data were collected by participant observation, where the observer was involved herself in daily tasks. Observation of a structured observation form, with eight main points, and each of a number of more specific sub was used. The study population size was 120 shares.

Results

1 Hand Hygiene Implementation 68 %, 2 Proper work clothing 100%, 3 Perioperative general cleanliness 50%, 4 Using of gloves 87%, 5 Using of nose-mouth protector 94%, 6 Aseptic Rules of Procedure 70%, 7 Implementation of sterility 95%, 8 Surgical Traffic 578 times open the door during operation

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Keywords
Sterile techniques, surgical asepsis, hand hygiene, aseptic expertise of nurse, SSI

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OP105

Student Learning and Engagement in the Perioperative Environment

Peirce-Jones Julie
UK

KEY WORDS: coaching, learning, engagement.

In our fast pace lives Coaching allows us time to stop and consider. It puts me in mind of a poem;
[1] 'What is this life if full of care we have no time to stand and stare'.
Coaching can support and develop the student in learning new skills or how they engage with the academic process.
Coaching is an approach which allows the student been coached to gain awareness and insight rather than them been told what to do or what not to do.
[2] Identifies that coaching adds value and that it also provides staff with a solution focused tool to utilise to support the learning activities of students.
Coaching can provide a student with clear direction, goals and benefit the individual student by increasing motivation, problem solving and providing a sense of empowerment.
Coaching is a holistic approach to learning. It is demonstrated through a professional conversation, it requires an honest and open relationship between the staff [coach] and student [coachee].
[3] To support my coaching activity, I have utilised the GROW Model [Goal, Reality, Options, Way Forward].
The Coaching activity approach takes the student on their own individual journey which has a positive impact on their learning, engagement and contribution to their role in the perioperative environment.

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PREFERRED TYPE OF PRESENTATION: free paper.

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OP106

Unifying documentation for the operating nurses

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Authors
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Key words: documentation, operating nurses, patient's security, preoperational care.

Purpose of this paper: With this paper we would like to demonstrate a process for a formation and preparation of a unified documentation of the operating nurses. Furthermore we would like to point out the nurse's influence on security in surgery.
The paper will demonstrate the unique process of the formation how to document operating nurses through existing analytics documentation to creating documents which are meant to be for all operating rooms, independently of the operational specification.

The documentation of operating nurses is a necessary tool for the daily work. It is a mandatory part for the documentation of the patients.

The goal of a simple documentation is primarily to collect the evidences of all processes and activities which operating nurses are facing in their job. Furthermore this allows a tracking and evaluation of the work steps. Except from the patient's data, planning and worktime notes the advantage is to prevent data duplicates. At the same time the patient's security level in operating rooms can be raised during preoperational care.

The unique documentation of the operating nurses is based on processes that are the same on all operating rooms on a national level. This allows a comparable view between the hospitals and a measure of quality and patients treatment.
With this unique documentation for the operating nurses, a unique document has been created that allows saving and access to information which is approved by the further health institutions that is applicable in practice.

The accurate and complete documentation provides the right protection, the documentation of exchanging work processes between operating nurses, the right evidence of the used materials and machines.

If all the points of the document are considered than this process would allow a unique way of data storage which could be used as a guidance of work in the nursing field. Especially for the preparation of surgeries but also for the process right after a surgery and the transfer steps of the patient.

Maintaining the documentation of the operating nurses, where the applied single steps are documented as evidence, is important for the following reasons:

- It is according to law and the professional responsibility.
- For securing evidence of the nurses knowledge.
- For the nurses professional responsibility of acknowledging standards in all steps of the patients treatment.
- The documentation provides a good clinical and work responsibility as well as security and efficiency.

These are important points for maintaining a high quality care for the patients. Moreover the documentation, which is provided by the operating nurses, is also a platform for exchanging and sharing the professional knowledge and experience. All in all the documentation provides a professional platform for a successful collaboration and a further enhancement of the proficiency itself.

PARALLEL G3
BEST PRACTISES AND KNOWLEDGE IN OR

OP107

The operating room nurse and her knowledge

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During 18 months of training in the Operating Room Certified Nurses (with a State diploma) I learned a lot from contributors and the training periods we had. I also took advantage of these opportunities to acquire more experience and more skills. I looked for means to remember every single thing and apply every single one of them to my work. The school allows us to stop working for a while and to take the time to analyse the way we are working.

After several years of working, of routine, in our operating theatre suites running after profitability to stay financialy viable, what has become of our knowledge? How do some teams manage to remain in a learning dynamic?

I made some research on legislation, on the role of the manager Operating room Nurse, on motivation at work, on the abilities and the dynamic of a team. I conducted surveys in hospitals to confirm some hypothesis. All these researches helped me to try and find means to remain in a learning and open dynamic within the operating team.

According to me the problem of reactualising knowledge Inside the Operating Room is due to many factors. Motivation in this reactualising (in some departments) is not only the business of the Operating room Nurse. The Operating room Nurse cannot act alone without ending exhausted. But she is the first step towards change. However Operating room Nurses cannot act on their own. They should be able to rely on their hyerarchy and colleagues in order to make everybody walk in the same direction. The Operating Room should not be self-centered but opened to other approaches.

OP108

Promoting best practice in the operating theatre setting

Guckian Fisher Mona
UK

One of the most challenging and dangerous areas of healthcare delivery is the operating theatre.

In the UK we have spent millions of pounds investigating the causes of inadvertent harms to patients in our care after the events have happened. We spend additional millions in litigation and this is increasing, as indeed are the incidents reported to the UK national data base.
There appears to be a lack of emphasis and ownership around the standards and recommendations which inform and support best practice in the operating theatre and other interventional areas. It is difficult to understand how this can be the case given that invariably when things go wrong it can more often than not be attritributed to a failure to follow procedure or indeed a lack of awareness on what the standard of care should be.

Session Objectives:
This session will aim to explore how:

1. The utilisation of the AfPP Standards and Recommendations for Safe Perioperative Practice inform the optimal way to manage patients and provide a robust strategy to effect safe outcomes for perioperative patients.
2. Explore the myth that national standards often referred to as *'only guidelines' can* therefore be interpreted as a form of suggestion for practice and the potential implications of this!

OP109

Education given by a nurse to prevent deep vein thrombosis increases the knowledge level and self-care applications of patients

Gonul Ayse
Turkey

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The research has been conducted to evaluate the effect of training provided by the nurse on patients' realisation of self-care applications aiming to prevent deep vein thrombosis (DVT) and on their knowledge about DVT. The trial group was composed by 40 patients taking treatment at a university hospital's general surgery, urology and at thoracic surgery clinics. As data collection tools; Autar DVT Risk Identification Scale, questionnaire for getting to know patient characteristics, DVT information defining form, self-care applications specification form relating to DVT information and satisfication form for DVT education have been used. Each patient was given a training before getting in surgery by using the illustrated booklet prepared by the researcher. The level of information patients had about DVT was determined before and after the training. In addition, the situation of patients as to their applying what are necessary for preventing the formation of DVT was determined after the surgery. It was determined that 5.0% of patients knew about DVT before getting training and 95.0% knew about it after getting training. It was found out that the DVT average information score of patients increased. There was a meaningful statistical difference between DVT average information scores of patients before and after getting training (p=0.00). Self-care application scoring averages of patients was found to be 8.8±2.3 from out of 13. All of the patients showed the nurse as the source of information obtained about DVT and they recommended that the trainings should also be given to other patients. Most of them were very satisfied from training. This research has revealed positive results of patient attendance of their own care that they educated with an effective method. Additionally, this study has introduced a new facility prepared by nurse to scientific information.

Key Words: Deep vein thrombosis, patient education, surgery, perioperative care, nursing care

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OP110

An examination of the knowledge and practice of doctors and nurses of the preservation and storage of evidence in forensic cases in the operating theatre

OKGÜN ALCAN Aliye
Turkey

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Forensic cases are an important part of the work of health institutions, and are frequently met with in the operating theatre. It is important that the surgical team should know the procedures which must be followed in these cases,and they must have a certain basic knowledge of forensic medicine in order to follow the forensic case procedure correctly and to preserve the chain of evidence. This study had the purpose of examining the knowledge and practice of doctors and nurses in the operating theatre with regard to preserving and storing evidence in forensic cases.
The descriptive study was conducted with 139 doctors and 59 nurses who agreed to participate, who were working in the operating theatres of Ege University Medical Faculty Hospital. Collection of data was achieved between 1 and 31 December 2015 using a 33-question form prepared by the researchers in line with relevant literature.
It was established that the mean number of years of work in the operating theatre of the doctors and nurses participating in the study was 10.95 ± 9.97 (min: 1 year, max: 43 years), 70.7% had encountered forensic cases, 65.2% had reported forensic cases, 55.1% had had no training relating to forensic cases, 55.6% regarded their own approach to forensic cases as partially adequate while 36.9% regarded it as inadequate, 80.3% wished to receive training on forensic cases, and 55.1% of participants did not know whether the institution where they worked had rules and procedures regarding the preservation and storage of evidence in forensic cases.
The conclusion of the study was that most of the doctors and nurses working in the operating theatre felt that their knowledge and practice regarding the preservation and storage of evidence in forensic cases was inadequate, and that they wished to receive training on this topic.

Key words: Forensic cases, evidence, operating theatre

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PARALLEL G4
CREATING COMPETENCES

OP111
Professional competence in perioperative nursing care – operating theatre nurses´ perspective

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Introduction: Operating theatre nurse´ have professional responsibility for the care of the patient, but what this means is unclear in perioperative nursing. Responsibility includes that the care should be planned in consultation with the patient and be based on nursing science and proven experience to ensure quality care for the patient. Operating theater nurses' practice are different other practice and includes providing health care but there is little time to meet the patient in a dialogue.
The aim was to identify professional operating theatre nurses´ competence and factors that influence competence in perioperativ nursing.
Method: A quantitative design was used and carried out in Sweden during the first half of 2016. Data was collected from operating theatre nurses´ by means of a questionnaire. This study will also a mixed method be used, where quantitative data is complemented with a qualitative open-ended question.
Results: The data analysis is ongoing and the preliminary result shows that new challenges were identified due the model of professional competence in order to meet the patients´ problem and needs in perioperative nursing.
Conclusions: The study may contribute with factors that influence the professional development of the operating theatre nurse's in perioperative nursing to ensure the care of the patient. These factors may be important for future professional development and for developing the perioperative nursing care of the patient.

OP112

Operating room nurses' perspective on preconditions for safe intraoperative nursing care and safe surgery

Sandelin Annika
Sweden

Background

One area of main interest from the operating room nurses (ORNs) perspectives and patient safety is the importance of correct planning for nursing care and for safe surgery (1, 2, 3). In hospitals, departments are mostly structured in silos and organized from this “silo-thinking” which leads to fragmented goals and objectives for the patient care (4) and with different goals and priorities for the professionals (5). The planning and scheduling are foremost delivered by computerized systems (6), which ease the planning, but the systems are not enough developed, why it is difficult to plan for the operations (7) and thereby intraoperative nursing care. Organizational structure, good leadership and interdisciplinary collaboration are key factors (8, 9). Leaders, as first line managers, have a great impact on the organization, management and the attractiveness of the workplace for nursing personnel (3). Preoperative dialogues between the surgical team-members and familiarity of the procedure are of importance for patient safety (10, 11, 12).

The aim of the study was to describe operating room nurses’ experience of preconditions for safe intraoperative nursing care and safe surgery.

A qualitative design was chosen for increased understanding of ORN’s experiences of preconditions for safe intraoperative nursing care. Data collection was conducted with narrative interviews with 16 ORNs (13) and data analysis used content analysis (14).

The findings show that safe intraoperative nursing care from ORNs perspective occurs when knowledge about the patients’ health status and desires was fulfilled. Shared information between surgical team-members about the patient and the surgical intervention was of crucial importance for ORNs to achieve safe care. Computerized information systems were incomplete, regularly preoperative dialogues within the surgical teams were nonexistent, and a risk of fragmented care was evident. ORNs professional skills should be mandatory resources in planning for the patients’ surgery.

Key words: operating room nurse, information, electronical, leadership, teamwork.

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OP113

Customization of a tool to assess non-technical skills of scrub practitioners in Denmark

Mundt Anna
Denmark

Anna Sofie Mundt, Lene Spanager, Helle Teglgaard Lyk-Jensen, Doris Oestergaard

Background: To enhance patient safety and minimize surgical errors in the operating room it is important to train non-technical skill (NTS) as well as technical and medical skills. The Scottish developed Scrub Practitioners List of Intraoperative Non-Technical Skills (SPLINTS) is used to assess and provide structured feedback on scrub practitioners' NTS (1). Due to differences in culture between Scotland and Denmark an adaptation of SPLINTS was needed (2). The aim of this study was to adapt SPLINTS for use in Denmark as SPLINTSdk.

Methods: Four mono-disciplinary group interviews with scrub practitioners, surgeons and anaesthesia staff (n=21) were conducted at two university hospitals in the Capital Region of Denmark. Data were transcribed and analysed in the research group and, where needed, behavioural markers were reformulated or new ones written.

Theoretical framework: Literature suggests that it is not enough to literally translate a questionnaire or tool developed in another culture to ensure validity. It is important to customize tools for assessing behaviour to ensure that the tools fit the context in which they are to be used (3).

Results: The order of elements was changed and one new element called "supporting others" was added. Main changes related to the scrub practitioners' focus on the team, involvement of the patient in information gathering, and speaking up in a timely manner in times of uncertainty.

Conclusion: A behavioural marker system for scrub practitioners and circulating staff in Denmark, SPLINTSdk, was adapted from SPLINTS developed for scrub practitioners in Scotland.

Implications for perioperative nursing: SPLINTSdk can be used to assess and provide structured feedback on NTS for scrub practitioners and circulating staff in a simulated environment or in clinical practice. This can be the first step towards integrating NTS in training programmes for scrub practitioners and circulating staff in Denmark.

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Keywords: scrub practitioner, theatre nursing, non-technical skills, training, assessment

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OP114

A Survey to Determine Nurses Knowledge and Attitudes towards Acute Post-Operative Pain Management in a Perioperative Setting in Ireland

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Ireland

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Background/Purpose: Despite hospitals having Acute Pain Management Services (APS), post-operative pain management in a perioperative setting continues to be a major challenge for perioperative nurses. Acute pain after surgery is often undertreated. Though many studies have been conducted at an international level examining nurses' knowledge and attitudes towards pain management, a limited number of studies have been conducted in the perioperative setting. The present study was an attempt to address this gap in research.

Theoretical Framework: By surveying perioperative nurses' current knowledge and attitudes towards post-operative pain and its management the factors that determine nurses' knowledge and attitude towards pain management in a perioperative setting can be identified.

Method: The consecutive sampling method was used to select respondents from 120 perioperative nurses working in the Operating Theatre in a large Dublin teaching hospital. A modified version of Knowledge and Attitudes Survey Regarding Pain (KASRP) by Ferrell & McCaffery (2012) was used. Descriptive statistics were used to determine total score and ratings of individual items.

Result: Merely 4% of the nurses obtained a passing score of 80% or more. Out of the total score of 31, the overall mean score respondents obtained for the KASRP tool was only 18.55 (59.6%). Perioperative nurses' erroneous beliefs and knowledge deficits were evident in the area of theoretical knowledge of pain, pain assessment, and pharmacokinetics of opioids. Discrepancies between nursing practice and attitudes were evident in the present study.

Conclusions and Implications: Continuing education regarding pain management for patients after surgery remains important for nurses. Adoption of evidence-based practice requires ongoing education programs. Data from this study are being used to design and implement an evidence-based curriculum involving content about pain and pain management in patients after surgery. A multidisciplinary team approach to manage postoperative pain is viable.

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FREE PAPERS PRESENTATIONS

FP01

Surgical nurses' preoperative patient education practices

KURŞUN Şerife
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Background: Patient education is the combination of learning experiences that protects patients' health and helps to change their behavior. Its purpose is to help enhance patients' abilities to make decisions about health and health care by correcting their behaviors and enabling them to cope with diseases (1).
Aim: This study was conducted to evaluate the current preoperative patient education practices of nurses in surgery clinics and to determine these nurses' views about and suggestions for patient education.
Method: This descriptive study was carried out with 94 nurses in the surgery clinics of a medical faculty hospital in Konya. The data were collected using a survey form evaluating the nurses' demographics and patient education practices. The data were summarized as numbers, percentages, averages and standard deviations.
Findings: Of the participants, 56.4% were high school graduates, and the duration of their employment was 59.02±41.05 months on average. Of the surgical nurses, 93.6% provided preoperative patient education, and 94.3% of those nurses also included the patients' relatives in this education. It was determined that among the preoperative education subjects, the information that was provided most was about denture, prosthesis and makeup removal, or preoperative routines (100%), and the information provided least was about premedication (63.6%) and the attendants of the surgical operation (63.6%). It was also found that 33.0% of the nurses used education materials, and all of those nurses utilized brochures and manuals.
Conclusion: The study determined that most of the nurses provided preoperative patient education and the ratio of including the patients' relatives in this education was high.
Implications of perioperative nursing: The preoperative education carried out before surgical intervention makes significant contributions to patients' knowledge about what will happen in each phase of the surgical intervention, their physical and mental well-being and positive surgery results
Keywords: preoperative care, patient education, surgical nursing

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FP02

Nurses thinking out of the box onto the screen- Communication between post-delivery mother in PACU and newborn

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Introduction: One of the well known methods for long distance communication is the use of televised video conference (VC) or telemedicine. Using VC as a support in cases of early discharge after childbirth can facilitate a meeting that makes it possible for new parents to be guided by the midwife in their transition into parenthood.
Currently, post caesarian section mothers in Hadassah University Hospital are transferred from OR into PACU and spend hours before being able to see their newborn. OR, PACU, Maternity and Newborn nurses searched for a solution to facilitate earlier connection between post C-section mothers and their newborn.
Aim: To design and validate a project to improve post partum mothers' coping process with the separation from her newborn.
Method- Mix quantitative and qualitative investigating mothers' immediate post partum needs for communication with their newborns. Questionnaire analysis reveled the primary need is connection and communication. Nursing team developed VC system between PACU and newborn unit including nurse- mother instruction. Mothers were queried regarding their VC experience.
Results- 29 mothers completed need questionnaire prioritizing their needs from most important to least important. Almost 50% of the participants prioritized the need to see their newborn was the top most important priority.
10mothers were interviewed after videoconference with their newborn. Eight themes were found: revelation, calming effect, closer look at the baby, video better than picture, excitement, short timing sufficient, provided strength and confidence.
Conclusion- The nursing team successfully coordinated high tech up to date technology to the hospital setting for the goal of filling mothers' needs. After evaluation of mothers' impressions it was found that this technology is adaptable to hospital setting and post delivery environment. Most importantly, this method contributes to post partum mothers improved well being.

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FP03

Evaluation of sleeping quality of patients in surgery clinic

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This study carried out to evaluate the sleeping quality of patients who are in the Surgery Clinic.

The study made between 02.03.2015-29.06.2015 in Ege University Medical Faculty Surgery Clinic with 160 patients who are accepted to participate. While gathering the data Pittsburg Sleep Quality Index (PAQI) for validity and for reliability used by Buysse et al. (1989) and in our country Agargün et al. (1996). Pittsburg Sleep Quality Index' s 18 clause has been grouped as 7 components points. Sum of 7 components points if equal to 5 or above then the sleeping quality stated as bad. In estimation of the data frequency, percentage, mean, standard variation, Wilcoxon, Mann Whitney U and Kruskal Wallis tests are used. For feasibility of the study written permissions of ethical committee (2015/22) and hospital acknowledged and also verbal permission of patients acknowledged.

Patients who attended the study were 50.6% female and 49.4% male. 67.5% of the patients said they had no sleeping problems before hospitalisation, 56.2% of the patients said they had sleeping problems after hospitalisation. Patients (PSQI) mean after hospitalisation is (8.04±4.51), before hospitalisation PSQI mean was more then (4.64±4.71). In 115 patients (PSQI) mean increased after hospitalisation. After hospitalisation high (PSQI) mean showed sleeping quality reduction. Reduction of sleeping quality in patients caused by hospital factors (noise, temperature, light) and worry, fear. Therefore these factors must be controlled.

Key Words: Sleep; Nursing; General Surgery; Sleep Quality

FP04

Objectives and tasks of general standards of clinical nursing care in operative nursing area

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Operating theater is a place where quality of care is of particular importance. Compliance with standards ensures an adequate level of care.

General standards of nursing clinical care in operative nursinf area is a Resolution No. 277 / VI / 2014 of the General Council of Nurses and Midwives in Poland. These documents described the activities of OR nurses / midwives, describing the characteristics of their work. They were developed by members of the Committee of Operative Nursing at the District Chamber of Nurses and Midwives in Lublin.

The aim of work is present the role of the general standards of nursing clinical practice in operative nursing area.

They show the following areas of work nurses operating

• area connected with the work as a nurse / midwife operating instrumentującej (related to nursing-assisted treatment)

• area connected with the work as a nurse / midwife operating helping (the nurse assistive instrumentującej)

• area to ensure the broad sense of safety to the patient and the surgical team,

• area of the employee's duties do not require contact with the patient, or other members of the surgical team concerning the employment duties performed during the hours of the afternoon and night

Conclusions: The paper described the objectives of the standards: adaptive, informative and easy to quality and human resources management

Keywords: standards, OR nurse, operating theatere

FP05

Advanced Practice Nursing in the OR: threat or opportunity?

Schellekens Wivine
Belgium

Advanced Practice Nursing (APN) has generated considerable commentary, some professionals look upon APN with a sceptical eye. Nevertheless, APN « reflects a more vertical movement encompassing graduate education within nursing » (Hamric 2014, p.1)[1]. APN can be defined as: « The patient-focused application of an expanded range of competencies to improve health outcomes for patients and populations in a specialized clinical area of the larger discipline of nursing. » (Hamric 2014, p.71)[2].

APN encompass Clinical Nurse Specialists and Nurse Practitioners. The terminology may vary depending on the country or the context. A quick overview of the differences in terminology, training and recognition will be made.

Through an example of patient's care undergoing a Deep Brain Stimulation in neurosurgery, the role and core competencies of the OR Clinical Nurse Specialist (CNS) will be illustrated. In Belgium, the areas of OR CNS practice lay in: management of complex care in the OR, educate and support interdisciplinary staff and facilitate change and innovation within the perioperative nursing care system.

In Belgium, as in the other European countries, nurse's landscape is changing. New opportunities but also new threats emerge. Nurses, through their professional associations, must remain vigilant so that future nursing care could fit their vision/ideals.

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FP06
To err is human
Bagaoisan Cora
Canada

Building a Safer Health System for the Surgical Patient Population
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As humans we all make errors. Just as errors can happen anywhere, anytime, errors can also be prevented. The problem in healthcare is that errors may lead to negative impacts on our patients. Building a safer system means designing processes and developing standards of care to ensure a patient's journey is safe from accidental injury. It should be of pivotal focus in healthcare as financial reimbursement may be soon all be based on successful patient outcomes.
Mandated by the Chief Executive Officer, the initiative of building high reliability organizations (HRO) has shifted the approach at UHN from the traditional hierarchical boundaries and the culture of blame, to a systems approach where a cause analysis is used when examining issues. It has leveled the playing field. Most importantly, leaders now need to focus their safety designs on systematic processes of care with the end goal of achieving 'never events.'
At University Health Network Operating Rooms, a group of nursing leaders gathered to examine surgical count practices in the 45 operating rooms. The incidence of retention of foreign bodies (RFB), lost sutures and general incorrect counts have risen in the past few years. The complexities of our cases, the expected fast paced turnovers and the lack of respect for surgical counts from all members of the surgical team may be the contributing factors. Focus groups and a written needs assessment conducted by the Patient Care Manager and the Advanced Practice Nurse Educator among the perioperative nursing staff at Toronto Western Hospital (TWH), raised issues pertaining to inconsistencies in documentation, variation in practices and great interpretation of the Operating Room standards.
This presentation will briefly highlight the processes undertaken in addressing our issues identified by perioperative nursing team pertaining to the count leading to the development of our first Standard Operating Procedure for surgical counts.

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Preferred Type of Presentation: Oral
Topic: Patient Safety/Perioperative/Clinical Practice
Key words: High Reliability, Never Events, Retention, Hierarchy, Culture, Standards

FP07

Getting a handle on loan instrumentation

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Australia

School of Nursing and Midwifery, Deakin University

Management of Instrument Loan Sets and Reusable Medical Devices Standard Development Team

Led by Dr Patricia Nicholson including team members Louise Grant, Tracy Kerle, Scott Landall and Angela Hand

Key Words

Reusable medical devices; loan sets; consignment sets; loan set management

Background

The use of loan equipment has become common practice for healthcare service organisations (HSOs) as a result of improved surgical technology and sophistication of procedures with rapid changes in instrumentation and implantable components (Haas, 2011; Huter-Kunish, 2009; Queensland Health, 2013; Seavey, 2013, 2010). There are many reasons for HSOs borrowing equipment including inadequate storage space, infrequently performed procedures and the high cost of purchasing surgical instrumentation, resulting in an increased reliance on loan equipment (Haas, 2011; Queensland Health, 2013; Seavey, 2011, 2010).

The increased use of loan equipment creates a number of challenges for HSOs, including loan equipment arriving too late for correct processing prior to use or contamination of loan equipment with foreign material on arrival at the HSO (Duro, 2011; Huter-Kunish,2009; Queensland Health, 2013; Seavey, 2011, 2010), resulting in cancellations, delays or prolonged surgical procedures. There are also a number of financial risks associated with the use of loan equipment. Therefore, a well-defined loan equipment management program and a multi-disciplinary policy on the management of loan equipment, with particular emphasis on packaging, transporting and handling, is required to minimize patient and personnel risks and ensure quality patient outcomes (Duro, 2011; Haas, 2011; Festa & Young, 2011; Huter-Kunish, 2009; Queensland Health, 2013; Seavey, 2011, 2010).

Focus of interest

A team of perioperative nurses were involved in the redevelopment of the Australian College of Operating Room Nurses Standard 'Management of Loan Equipment', which was guided by contemporary evidence-based literature. This presentation will include an overview of the standard that has been developed to assist HSOs formulate and implement a loan instrument program, taking into consideration patient safety issues and ethical responsibilities regarding handling and sterilization of loan sets and reusable medical devices. A videoclip of a program that has been successful implemented in a major organisation will be included in the presentation.

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FP08

Organ transplantation and ethical issues

Küçükakça Gulden

Turkey

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Organ transplantation is the operation of transferring a person's organ to another who is in need for treatment purposes. The purpose of the organ transplantation in the clinical practice is to increase the life quality of the patients with end stage organ failure, extend their life span, treat the disease, and decrease their mortality and morbidity rates.

Having brought a new treatment method for those who have lost the functionality of their organs and tissues due to several reasons, organ transplantation becomes a ray of hope for those individuals to regain their health. Being the only way out in the treatment of some diseases, organ transplantation is assessed as a special issue that requires to be discussed ethically as the source of these organs is humans.

Actions that emphasize the morality of the humankind constitute the subject of ethics and its primary goal is to determine the most correct moral values as well as the actions shaped by those. From this perspective also, the ethical four principles are very important for organ transplantation because while the purpose of organ transplantation is defined as the principle of providing a benefit especially for the transplant patient according to these ethics and ethical principles, another principle aim is non-maleficence in the implementation of a complication-free transplantation on both the living donor and the transplant patient. The subject of the principle of respect to the patient autonomy is to receive the necessary consents of the patients to be transplanted, living donors and the relatives of cadaveric donors, whereas the fourth principle of ethics, justice is about implementation of transplantation without any profit motive for the patient that is really in need of transplantation and transplantation of the donated organs to the most suitable recipient by the national coordination system according to medically emergency states and tissue compatibility.

Consequently, organ and tissue transplantation is a medical treatment method that aims to rescue human life. Accordingly, the limits acceptable to the ethical understanding in providing the organ without neglecting the purposes of the organ transplantation should be drawn in favor of the patient.

FP09

Injury status and influencing factors in the operating room staff

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This study did in private hospital operating room in the health care workers employed in the incidence of injuries, surgical instruments, the factors that cause injuries and health workers in the prevention of injury and the knowledge of the application after the injury, is scheduled descriptive research to identify the skills and practices.

The research did between 1 April and June 1, 2016 , according to a questionnaire prepared by the researchers examined the source has been applied to, 20 doctors 16 nurses and 11 cleaning staff is working in the operating room. means and frequency analysis in analyzing the resulting data, the Chi-square test was used to compare the groups. Meaning level is determined as $\alpha = 0.05$. According to the data obtained from the study evaluation; during the professional life of 47% of the operating room staff where injury at least once; General Surgery department in the event of injury, most (56%) experiencing this chapter and Orthopedics (35.4%) and Neurosurgery (35%) showed the sections.

Most piercing-penetrative injuries with 63% experiencing a tool in the study; 35% of doctors that suture needle when disposing of immersing himself injured; 54.7% of the nurses needles or instruments or when they are injured, while the results do not rush; cleaning staff said they wounded while collecting the most waste.

Participants are a very small part (3%) were reported for injuries; 67.8% of those who reported that nurses; 26.4% of nurses and the cleaning staff taking hepatitis B vaccine; and operating is during exceed 3 hours of surgery, while requiring urgency; late at night or being done in the morning, more than the number of people in the operating room; insomnia, fatigue, breakfast failure, injury was found to increase the level of stress in operation. In addition, adequate rest, surgery was shown to reduce the injuries and the motivation is properly ventilated.

FP10

Effect of a brief team training program on surgical teams' non-technical skills: An interrupted time-series study

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Background
Up to 60% of adverse events in surgery are the result of poor communication and teamwork. Non-technical skills (NTS) are critical to the success of surgery and patient safety.
Objectives
The study aim was to evaluate the effect of a brief team training intervention on surgical teams' observed NTS.
Method
Pretest-posttest interrupted time series design with statistical process control analysis was used to detect longitudinal changes in surgical teams' NTS. We evaluated NTS using the revised NOTECHS weekly over 20-25 weeks before and after implementation of a team training program.
Results
We observed 179 surgical procedures with cardiac, vascular, upper gastro-intestinal, and hepatobiliary teams. Mean posttest NOTECHS scores increased across all teams, showing special cause variation. There were also significant improvements in the use of the Surgical Safety Checklist.
Conclusions
Our results suggest an association between the team training intervention and improvements in surgical teams' NTS.

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FP11

Education given by a nurse to prevent deep vein thrombosis increases the knowledge level and self-care applications of patients

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The research has been conducted to evaluate the effect of training provided by the nurse on patients' realisation of self-care applications aiming to prevent deep vein thrombosis (DVT) and on their knowledge about DVT. The trial group was composed by 40 patients taking treatment at a university hospital's general surgery, urology and at thoracic surgery clinics. As data collection tools; Autar DVT Risk Identification Scale, questionnaire for getting to know patient characteristics, DVT information defining form, self-care applications specification form relating to DVT information and satisfication form for DVT education have been used. Each patient was given a training before getting in surgery by using the illustrated booklet prepared by the researcher. The level of information patients had about DVT was determined before and after the training. In addition, the situation of patients as to their applying what are necessary for preventing the formation of DVT was determined after the surgery. It was determined that 5.0% of patients knew about DVT before getting training and 95.0% knew about it after getting training. It was found out that the DVT average information score of patients increased. There was a meaningful statistical difference between DVT average information scores of patients before and after getting training (p=0.00). Self-care application scoring averages of patients was found to be 8.8±2.3 from out of 13. All of the patients showed the nurse as the source of information obtained about DVT and they recommended that the trainings should also be given to other patients. Most of them were very satisfied from training. This research has revealed positive results of patient attendance of their own care that they educated with an effective method. Additionally, this study has introduced a new facility prepared by nurse to scientific information.

Key Words: Deep vein thrombosis, patient education, surgery, perioperative care, nursing care

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FP12

A measurement tool in order to determine distress: Distress thermometer scale

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Preoperative distress affects individuals psychologically as well as physiologically and sociologically. The study was conducted that patients will have surgery to determine distress of evaluate the usability of the Distress Thermometer Scale. The study was conducted with 200 patients who were admitted to surgery services for operation. The data were gathered using questionnaire, Distress Thermometer, Hospital Anxiety and Depression Scale (HADS), SF12 Short Health Scale and list of reasons of distress one day before the surgery. The average distress score of the patients was 4.7±2.5, and it was determined that the distress levels about half of them were above this average. When HADS-A was taken as a measure according to the ROC curve 69.2% sensitivity and 58.3% specificity and a cutoff point of five or more on the DT was determined and when HADS-D was taken as a measure taken according to the ROC analysis 70.5% sensitivity and 59.3% specificity and a cutoff point of five or more on the DT was determined. It was determined that 88.5% of patients stated between 0 and 10 causes of distress while 11.5% of them mentioned 11 and above causes of distress. Some of the reasons expressed most often as causing distress for patients were getting an infection after surgery, feeling cold after surgery, and the inability to move freely. The Distress Thermometer can be used in patients who will have surgery to determine distress levels; but cut point should be determine again for each sample. The list of causes of distress which developed in this study can be used to identify factors that cause distress in patients. HADS was used as a criterion for DT in this study; the device can be retested by using different distress scales together.

Key Words: Surgery, distress, pre-operative, nursing care.
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FP13

The Effect Of Cold Application Applied On Median Sternotomy Before Deep Breathing And Coughing Exercise On The Sternotomy Pain

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It was aimed to determine the effect of cold application applied on median sternotomy before deep breathing and coughing exercise (DBCE) on the sternotomy pain.
The study was carried out quasi-experimentally with patients who have median sternotomy. The study data were collected through data collection forms, numerical rating scale, pulse oximetry, blood pressure monitor and tape recorder. Having been carried out at 4 stages, on the first and third stages of this study, cold gel package was not applied on sternotomy incision before DBCE; however, on the second and fourth stages of the study, cold gel package was applied on sternotomy incision for 15 minutes. The patients were asked about the severity of their pain before and after DBCE. During the process of cold application, the patients were asked about the sensation of coldness. The data were analyzed via descriptive statistics, Mann Whitney U, Wilcoxon and Fried tests.
Any statistically significant difference was not found between the surgery type and before and after DBCE pain scores belonging to all stages. A statistically significant difference was determined between the post-DBCE pain scores belonging to first and second stages. Post-DBCE pain score belonging to second stage was found to be lower than the post-DBCE pain score belonging to first stage. A statistically significant difference was found between the post-DBCE pain scores belonging to third and fourth stages. Post-DBCE pain score belonging to fourth stage was found to be lower than the post-DBCE pain score belonging to third stage. It was determined that 90% of the patients felt relaxed after cold application, 85% of them preferred cold application before DBCE and they wanted to try it again, 95% of them suggested the cold application to other patients.
It was found that cold gel package application is effective for the sternotomy pain associated with DBCE.

Key Words: Sternotomy, pain, deep breathing and coughing exercise, cold application

FP14

Nurses' Awareness as a result of short term stoma bag life experience

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This is a quasi-experimental study conducted for raising awareness about being a patient with stoma in nurses working in surgical services where intestinal stoma is opened in Balcalı Hospital, Çukurova University.

The stoma bag was inserted after applying "Introduction and Evaluation Form" which involved 11 questions was developed by the researcher via face-to-face interview technique with the nurses participating in the study and administering "Pre-test Form" consisting of 4 questions After studying with stoma bag, whose 1/3 was filled with water, for 6 hours.

After the bag is removed and "Post-Test Form" were applied. "Post-Test Form" involving 4 questions in the pre-test and 6 question about the first feelings and causes after application of stoma bag, the most intense feelings, experienced difficulties and coping methods during the process having the bag,. "Post-Test Form" consists of 10 questions in total.

In nurses' evaluation of first three feelings that the patients were experiencing before and after the life experience of using stoma bag for a short time;the difference between the exclusion feeling scores was found to be highly significant (z=-3.411; p=0.001). In the evaluation of the nurses for the question "will you share the information that you have stoma with your friend if you were a person with a stoma" before and after the stoma bag life experiment, the difference was determined to be statistically significant (z=-2.000; p=0.001). The difference between the evaluation scores for the patients to cope with their stomas before and after the application was observed to be highly significant (z=-4.724; p=0.000).

Keywords: İntestinal stoma, Awareness, Nursing, Experiences, Challenges

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FP15

Surgical pathology material management in operating room: a point prevalance surgery

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Key words: Surgical material management; material management, surgical pathology

Background: The surgical pathology material management is an essential part of patient safety in operating-room because the specimens of the pathologic findings in tissues or organs removed from patients are used for diagnosing the disease. Despite the importance of the surgical pathology material, effective management was still not realized.

Objectives: Identifying patient and material information in an electronic format, providing the right and rapid transportation in the appropriate size of container with enough protector solutions, also ensuring information security and similar practices should be included in the surgical pathology material management systems. The aim of this study is to observe the practice of surgical pathology material management in an education and research hospital.

Data Sources: Recommended practices of Association of Perioperatif Registered Nurses (AORN) about surgical pathology material management was reviewed and a questionnaire form was prepared and conducted by the researchers in an education and research hospital operating room. One-day survey of surgical pathology materials are comprised of 4 excisions, 10 resections a total of 14 specimens in the point prevalance survey.

Results: No process is used for surgical pathology material management by the hospital. Identification of patient and material information is done in an electronic format. Even if the right placement to the appropriate size of container with protector solutions is provided, its not transported rapidly. Also specimens have been held in a shelving unit at room temperature for about 20 to 23 centigrade degrees in the operating room.

Conclusions: The result of this study scientifically proved that necessary practices for effective surgical pathology material management in the operating room are insufficient.

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FP16

Does compassion level of surgery nurses differ?

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Keywords: Nursing, care, compassion, demographic properties.

Background
Nurses are working in the workplace having many individuals need to care and compassion. For this reason, it is required to measure compassion levels in order to define and to manage factors affecting compassion of surgery nurses.
Purpose
In the research, it was aimed to examine change of compassion levels of surgery nurses and their differences based on demographic properties, and evaluate in which demographic properties compassion levels are higher.
Methodology
The research is a methodological research, and performed during April-May 2016 time period. In the research, Compassion Scale developed by Pommieer (2011) and validated to Turkish language on university students by Akdeniz and Deniz (2016) was applied to 236 nurses working at different hospitals in the West Side of Istanbul City. Scale has 24 items and six subscales (self-kindness, negligence, share awareness, isolation, mindfulness and disengagement) with five likert type structure.
Results
Most of participants of the research were female, under 30 age, high school and university graduated, and single nurses (69,5%). According to gender, self-kindness, share awareness, mindfulness, disengagement and total compassion levels were higher in male participants, whereas negligence and isolation were higher in female participants. According to gender, only self-kindness level differences of participants were statistically significant ($p<0,05$). According to marital status, negligence levels were higher in married participants, and all other factors were higher in single participants. All factors have no statistical significant differences based on marital status ($p>0,05$). For age, self-kindness, share awareness and mindfulness levels were higher in the 41-50 aged group; isolation was higher in the 50 and over aged group. Self-kindness, share awareness and mindfulness share level differences were statistically significant ($p<0,05$). Based on education, self-kindness was higher in high school graduates; mindfulness was higher in doctorate graduates and other factors were higher in the university graduates. Only share awareness factor difference was significant based on education levels ($p<0,05$).
Conclusion
According to results of the study, compassion levels of nurses differ based on age, and do not change based on other demographic parameters of the research.

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FP17

The Benefits of International Cooperation for Hip Fracture Patients Care Improvements

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Introduction. Hip fracture is a growing problem all over the world (1,2) and a number of research projects including register studies have been performed on those patients group aiming to improve outcome (3,4,5,6). International cooperation between Lund University Hospital (Sweden), having ample experience in hip fracture patients care, and Kaunas university Hospital (Lithuania), which was less experienced in the field, resulted in changes of historical hip fracture patients care in Kaunas and subsequent analysis of the achievements (7,8,9). Based on this cooperation Fast track protocol (FTP) was introduced and scientifically evaluated in Kaunas.

Materials and methods. We investigated 138 hip fracture patients, treated according FTP and compared with 97 hip fracture patients treated in institution before FTP introduction. Information about the following procedures after patients' arrival was collected: pain and use of analgesics, infusion therapy, oxygen therapy, blood test sampling, electrocardiography registration and fractured hip immobilization. All patients after the FTP introduction were aimed to be operated within 24 hours after admission. Information about the mean time period from admission to surgery, length of stay in the hospital was collected.

Results. After the intervention the significant changes in use of immobilization ($p < 0.001$), blood sampling (<0.001), infusion therapy (<0.001), electrocardiography registration <0.001) were registered. However, changes in patients' pain reliever were not significant. Before the intervention the mean time from admission to surgery was 64 hours (range 2-355), as compared to 39 (range 1-385) hours, after the intervention ($p < 0.001$). The mean length of stay in the hospital before the intervention was 11.5 (SD 6), compared to 10 (SD 4) days after the FTP introduction ($p=0.02$).

Conclusion. International cooperation leaded to hip fracture patients care improvement. Also the significant reduction of time period before the surgery and length of stay was achieved.

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Key words: hip fracture, fast track, patients care, international cooperation.
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FP18

The Clinical and Economic Effects of Post-Operative Delirium in the Elderly Patient and Interventions to Reduce the Occurrence of Delirium

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Key Words: elderly patients, pain management, postoperative delirium, delirium prevention.

Elderly patients requiring surgical intervention frequently have multiple comorbidities which complicate their perioperative care and these comorbidities increase the patient's risk for postoperative delirium.[1] Delirium is caused by any disruption of communication between the neurotransmitters and nerve cells.[2] Surgical team members should consider post-surgical problems of elderly patients' when developing the perioperative care plan, specifically including a multimodal approach to pain control and risk reduction strategies for delirium prevention.[3]

The United States (US) Census Bureau and the European Commission (EU) have published reports describing the 2030[4] and the 2060[5] population projections, specifically noting an increase of people over 65 years of age which is expected to increase the health care and long term care costs in the US and Europe.[4] [5] Currently in the US, one-third of all surgery patients are over 65. According to the American Geriatrics Society Expert Panel on Postoperative Delirium in Older Adults, the estimated annual cost in the US from patients who have had adverse effects from delirium is estimated at $150 billion annually, and they further note that clinical interventions could have been used to prevent delirium in 40% of patients who experienced delirium during their hospitalization after surgery.[6]

Besides the economic implications from patients who experience delirium during their hospitalization, delirium is also associated increased mortality or poor long term outcomes to the patients.[6] Delirium is the most common complication for those 65 and older and for patients having certain surgeries can affect up to 60% of patients.[2] Research has shown when following post hip replacement or cardiac surgery patients who develop delirium during their hospitalization were twice as likely to experience a decline in activities of daily living and at high risk for long term care, [7]compared to patients who had the same surgery without an episode of delirium.[6]

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FP19

From tutors' feed-back to self-regulated feed-forward: Effects of video-annotated feedbacks in perioperative nurse training

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Abstract

Video-based analysis of practices is a powerful means to provide effective feedbacks. In particular, video annotation enables evidence-based and focused reflections thus reinforcing such an effectiveness (1-3) and fulfilling their conditions of usefulness (4-5).
In the domain of the training for perioperative nurses in Switzerland, a pilot study explored the affordances and the effects of video-based and video-annotated feedbacks on tutee's reflectivity skills and tutors' quality of feedbacks.
One perioperative nurse student (tutee) and two couples of tutors have been involved in four debriefing sessions subsequent to four video-recorded surgical operations. The first couple of tutors worked in a video-based condition, the second couple further included video-annotations. The tutee progressed on a *continuum* from not watching the video, watching it without annotation and finally annotating it with her own analysis.
Content analysis of the debriefing sessions based on a grid developed on Hattie & Timperley's framework (6) were conducted to assess the quality and the type of feedbacks. Interviews with the participants investigated their acceptance and perceived usefulness. Results show that firstly the use of video and moreover the use of video-annotation changed tutors' a) feedback contents and b) communicative style. Respectively, tutors shifted from a mostly nonspecific and corrective feedbacks to more valuable and evidence-based supportive ones; they moved from assertive tutor-centered debriefing session to a student-driven self-evaluation. As a result, the tutee acceptance and integration of feedbacks augmented, as did the self-analysis of her own practice and the capacity of proactively proposing self-regulated reflections. This contributed to shifting from reflection *on* action to reflection *for* future action, proposing feed forward (4) issues to improve next practices. Video-based and video-annotated feedbacks results therefore to be beneficial for reflective competence development and for the quality of feedbacks in perioperative nurse training.

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FP20

The value of guided operating room experience for undergraduate nurses

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Purpose of the research

Since the removal of perioperative nursing from the core undergraduate curriculum questions have been raised regarding the acquisition of surgical knowledge to support best patient care outcomes. This national research project investigated this issue.

Method

Methodology for this doctoral research was a fixed mixed methods paradigm incorporating a triangulated/convergent parallel design. Qualitative data was collected from across Australia investigating undergraduate nursing students' comment about their time in the operating suite or lack thereof; transferable skills learned in the OR that may assist them in surgical nursing, and their attitudes towards possible future employment in the operating suite. Quantitative data was collected concurrently from students who participated in differing models of OR education. Knowledge testing was undertaken on areas surrounding pre and post-operative surgical ward nursing. Participants' results were compared to the model of OR education students' had participated in to determine if there was a correlation between their OR education and students' knowledge of surgical ward nursing.

Findings

Findings revealed undergraduates nurses receiving guided operating theatre experience had a 76% pass rate compared to 56% with non-guided or no experience ($p < 0.001$)(1). Graduate nurses were re-tested after their first year of nursing to see if their undergraduate deficits had been rectified. Graduate nurses with guided operating theatre experience as undergraduates or graduate nurses achieved a 100% pass rate compared to 53% with non-guided or no experience ($p < 0.001$)(1). The research informs us that undergraduate nurses achieve greater learning about surgical ward nursing via guided operating room experience as opposed to surgical ward nursing experience alone.

Implications

These results support the belief that OR experience supports greater knowledge of surgical nursing care. Transferable skills learned via OR experience included pain management, patient education, pre and post-operative care and asepsis. Recruitment of nurses can be fostered during guided experience and retention of current staff increased.

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FP21

The perception of patient safety culture among surgical nurses

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Objective: This study was conducted to determine surgical nurses' perception of patient safety culture.

Method: The study was conducted by totally 206 nurses working in the surgery departments of four hospitals (one university and two state and one private) who approved to participate in this descriptive study. The "Questionnaire Form" and the "Hospital Survey on Patient Safety Culture" were used as data collection tools.

Results: Average age of the nurses was 29.0±6.6 years; and 64.9% of them had undergraduate degree and 50.5% worked in state hospitals. General average of the positive responses in the Hospital Survey on Patient Safety Culture was 46.5±20.4% (Min: 12.7%, Max: 85.8%); it was 51.1±17.3% in the university hospital, 47.3±26.5% in the private hospitals and 43.2±25.6% in two state hospitals. When the survey was analysed, we determined that the highest positive response percentage averages belong to the subscales of "Teamwork within unit" and "Feedback and communication about errors" whereas the lowest positive response percentage averages belong to the subscales of "Non-punitive Response to Error" and "Frequency of Error Reporting". As for the main reason for making medical errors; 94.2% of the nurses blamed the high number of patients per nurse, 87.9% fatigue and stress due to prolonged working hours and 56.8% carelessness, negligence and lack of sleep.

Conclusion: The perception of patient safety culture of the enrolled nurses was determined to be at moderate levels. In-service trainings should be held and working conditions and shift hours of nurses should be improved to develop patient safety culture.

The implications for perioperative nursing: Patient safety culture constitutes an important component of patient safety. This present study provides information on the perception of patient safety culture of surgical nurses.

Keywords: medical error, patient safety, patient safety culture, surgical nursing.

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FP22

The Effect of Training Provided for Patients with Intestinal Stoma on Care Dependency

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Objective: Examine the effect of training provided for patients with intestinal stoma on care dependency.
Material and Method: The target of the study consisted of all patients receiving colostomy at General Surgery Clinics of Atatürk University Research Hospital between July 2012 and April 2014, where the study was conducted. The sample group was selected by using the improbable sampling method and while the first 30 patients receiving colostomy at general surgery clinics between these dates constituted the group not trained (control group), 30 patients receiving colostomy afterwards constituted the group trained (experimental group).

The prerequisite for individuals to be included in the study involved;

- Accepting to participate in the study,
- Being 50 and older,
- Having a waking consciousness and establishing a communication in order to apply the surveys and training (having no hearing impairment or illiteracy)

Experimental Group: The patients receiving colostomy were trained by using a training manual, which was prepared in accordance with literature, for postoperative 10 days. A silent environment was prepared for patients to receive the training. Patient description form and care dependency scale were applied to patients before the training. The care dependency scale was reapplied to patients on the phone one month after the training.
Control Group: Following the operation, patient description form and care dependency scale were applied to patients receiving colostomy. The care dependency scale was reapplied to patients on the phone at the end of the first month following the discharge.
Materials Used in Data Collection:

- **Patient Description Form**

Being used in collecting the data, the patient description form involved questions about the descriptive characteristics of patients.

- **Care Dependency Scale:** Items of the "Care Dependency Scale" will be evaluated over the 5-point likert scale. Scale items are rated with the likert-type scoring ranging between 1 and 5. The rating is as; 1= Completely dependent, 5= Almost / completely independent. While the lowest score is 17, the highest score is 85.

While the high scale score signifies that the individual is independent in meeting her/his care needs, the low scale score signifies that the individual is dependent in meeting her/his care needs.

An ethics committee approval and an institutional permission were obtained before starting the study. Patients were informed and consents were received from those who wanted to participate. Percentage distribution, mean, analysis of variance, Mann-Whitney U, Kruskal-Wallis test, and t test were used in assessing the data.
Results: It was determined that patients had an age average of 65.56±7.62 in the experimental group and 62.00±8.40 in the control group; 40% were female, 60% were male, 33.3% were primary school graduates, 51.7% had a temporary stoma and 48.3% had a permanent stoma. The total mean score of the scale obtained by patients in the experimental group was determined as 33.26±4.25 in the postoperative period and 53.96±8.83 in the first month following the training. The total mean score of the scale obtained by patients in the control group was determined as 29.63±4.00 in the postoperative period and 42.96±5.40 in the first month following the operation. A significant difference was determined between the two groups in terms of total mean score ($p<0.05$).
Conclusion: As a result of the study, the group receiving a training regarding stoma was found to have a higher score of care dependency.
Key word: Intestinal stoma, care dependency.

FP23

Turkish students views about the clinical practices of surgical nursing

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Introduction: Clinical practice has an important place in nursing education programs. Opinions of the students about the clinical practice will be beneficial to eliminate the deficiencies and for the clinical applications to make better.This descriptive cross-sectional study was conducted in order to define the views of the nursing students during surgical clinic practice.

Materials and Methods: The research population was comprised of 120 nursing students at Health School, second class.A sampling method was not used and the entire population was targeted but 110students agreed to participate and were included in the study sample (participation rate of the research: 91.6%).The research data were collected in December 2014 with a question form which was developed by the researchers Number-percentage calculation and mean tests Wilcoxon Signed Ranks Test ve Paired Samples Test were used in the data analysis.

Results: The average age of the students was found that20.43±2.06.In the study, it was found that 62.7%were female,64.5%were chosen willingly the nursing school and76.4%were happy of studying in their school.59.1%of the students were asked to conduct the theoric lessons and practice together. It was found that 33.6%of students had difficulties during a team practice, 31.8% of them during the application processes, 15.5%of them with the teaching staff, 14.52% of them with themselves and 4.5%of them with their group of friends. It was stated that71.8% of students wanted to work at surgery clinics, 75.5%at the operating room after graduating.Paired t-tests showed significant mean differences between the scale points of the institution opportunities, acquisition of clinical practice and nurse qualifications in both the university and state hospital;the scale points of the state hospital was higer than university hospitals.Paired t-tests showed no significant mean differences between the scale points of the teacher qualifications, operating room facilities and suggestions in both the university and state hospital.

Conclusion: In this study, were found that the students have often difficulty with team members and the clinical field.

Key Words: Nursing, student, clinical practice

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PRIORITY SESSIONS

KEYNOTE LECTURE 1: Understanding Violation and Migration in the Perioperative Setting – it's impact on quality patient care/positive outcomes and staff experience. Organisational drift puts patients at risk

Jane Reid, UK

KEYNOTE LECTURE 2: What's all the fuss with positive emotions? All you wanted to know about positive emotions and you did not dare ask

Anastassios Stalikas, Greece

Positive Psychology is the youngest and fastest developing branch of Psychology. Positive psychology has enriched, broadened and deepened the scope of Psychology, and focuses on talent development, personal growth, well-being and happiness.

We start our talk by establishing the conceptual framework of Positive Psychology and the conceptual relationships, overlaps and complementarity to other branches of Psychology. We emphasize the terms 'positive' and 'negative' and we outline how Positive Psychology is indeed complimentary and not oppositional to 'Negative' Psychology.

One of the main and fundamental assumptions of Positive Psychology centers on the beneficial role of experiencing positive emotions. The role of positive emotions has been largely neglected by most theories of emotion in Psychology. Most psychological theories of emotions focus almost exclusively on the role and the functions of negative emotions for human functioning, motivation and behavior. Positive psychology has presented new theories regarding the role of positive emotions for optimal human functioning. In this talk we will argue for, and present research evidence that supports the argument regarding the beneficial role of experiencing positive emotions for our physical health and psychological well-being.

More specifically we will outline the relationship between positivity and longevity, physical and psychological health, productivity, cognitive functioning, relationships and resilience. We will argue that positive emotions protect, heal and boost physical and psychological health.

In the third part of this talk we will underline the importance of the manner we perceive, interpret, make sense, and ascribe meaning to events. We will argue that we construct reality and that our emotional states shape the way we construct, experience and narrate reality.

Finally, in the last part of the talk we will present methods, practices and processes that facilitate and increase positivity, aiming at increasing our psychological resilience and our overall sense of well-being.

KEYNOTE LECTURE 3: We can be the change we want to see in an OR, use the power of appreciation!
Suzy Kimpen, Belgium

KEYNOTE LECTURE 4: Respiratory Protection Overview

Roger E. Huckfeldt, USA

Introduction

Surgical smoke is present in operating room (OR) environments where procedures are performed using heat-producing devices (e.g., electrosurgery units and lasers).[1] Approximately 90% of both open and endoscopic procedures generate some level of surgical smoke.[2] As the use of these heat-producing devices continues to increase to support today's surgical techniques, there is a corresponding increase in exposure to the smoke generated during these procedures, which may pose certain health risks. Surgical smoke has been found to contain toxic gases and vapors, bioaerosols, bacteria, and viruses, all of which can cause adverse health conditions.

The United States Occupational Health and Safety Administration (OSHA) estimates that 500,000 healthcare workers (HCWs) in the OR, including surgeons, anesthesia providers, nurses, and surgical technologists are exposed to electrosurgical or laser smoke annaully.[3] A local exhaust ventilation (LEV) should be used during all smoke generated procedures and effective respiratory protection masks worn by the surgical staff to reduce the risk of occupational exposure to surgical smoke and its associated hazards.

Disease Transmission

Research indicates that disease is transmitted through surgical smoke. One study found, the presence of irritant, carcinogenic, and neurotoxic compounds in electrosurgical smoke, which may have significant implications for the health and safety of operating room personnel.[4] In another study, the collected laser plume was shown to contain papillomavirus DNA.[5] And yet another study, confirmed that the application of electrocautery to a cluster of melanoma cells releases these melanoma cells into the plume; and these cells are viable and may be grown in culture.[6]

Generally, within five minutes of using electrosurgery during a procedure, particulate matter in the immediate area increases from a baseline measurement of approximately 60,000 particles per cubic foot to over one million particles per cubic foot.[7] In addition, it takes the typical OR air handling system approximately 20 minutes to return particle concentrations to normal after the procedure has been completed.

In a study comparing smoke condensates induced by the use of CO2-laser and electrosurgery indicated that the total mutagenic potency observed was comparable to that of cigarette smoke:

- Using the CO2 laser on one gram of tissue is like inhaling the smoke from three unfiltered cigarettes in 15 minutes.[8]
- Using electrosurgery on one gram of tissue is like inhaling smoke from six unfiltered cigarettes in 15 minutes.[8]

Airborne Contaminates

Ask any member of the surgical team, and they will tell you surgical smoke can be seen and smelled. The components of surgical smoke are the gaseous by-products of the breakdown and vaporization of tissue protein and fat.[9] Surgical smoke is comprised of 95% water or steam and 5% cellular debris in the form of particulate matter, which contains chemicals, blood and tissue particles, intact viruses, and intact bacteria. The water acts as a carrier for particulate matter contained in surgical smoke. The concentration of these by-products produced during electrosurgery or laser depends on the type of tissue, power density, and length of time the energy is used on the tissue. The chemical composition of surgical smoke has been well documented.[10] (Table 1)

Table 1 - Chemical Contents of Surgical Smoke[10]

Acetonitrile	1-Decene	4-Methly phenol
Acetylene	2,3-Dihydro indene	2-Methyl propanol

Acroloin	Ethane	Methyl pyrazine
Acrylonitrile	Ethyl benzene	Phenol
Alkyl benzene	Ethylene	Propene
Benzaldehyde	Formaldehyde	2-Propylene nitrile
Benzene	*Furfural*	Pyridine
Benzonitrile	Hexadecanoic acid	Pyrrole
Butadiene	Styrene Hydrogen cyanide	Styrene
Butane	Indole	Toluene
3-Butenenitrile	Methane	1-Undecene
Carbon dioxide	2-Methyl butenal	Xylene
Creosol	6-Methyl indole	

Health Concerns

Pulmonary irritation and inflammation, transmission of infection, and genotoxicity are the major health concerns associated with surgical smoke. Additionally, after repeated exposures to surgical smoke, OR staff have reported signs and symptoms that include burning and watery eyes, nausea, and headaches.[11] Table 2 lists the potential health hazards associated with exposure to surgical smoke.

Table 2 – Potential Health Hazards of Surgical Smoke[11]

Acute and chronic inflammatory respiratory changes (i.e., asthma, chronic bronchitis, emphysema)	Eye irritation	Lightheadedness
Anemia	Headache	Nasopharyngeal lesions
Anxiety	Hepatitis	Nausea or vomiting
Carcinoma	Human Immunodeficiency Virus (HIV)	Sneezing
Cardiovascular dysfunction	Hypoxia or dizziness	Throat irritation
Colic	Lacrimation	Weakness
Dermatitis	Leukemia	

The size of the particles in surgical smoke is also an important consideration in assessing the respiratory hazards of surgical smoke. The smaller the particle size, the farther it can travel to affect the non-scrubbed surgical team members, in addition to those who are scrubbed.[12]

Typical particulate sizes are:

- Tobacco smoke = 0.1 to 3.0 microns
- **Surgical smoke = 0.1 to 5.0 microns**
- Bacteria = 0.3 to 15.0 microns
- Human immunodeficiency virus (HIV) = 0.15 microns

A study measuring the speed and distance of smoke particles reported the range of 9 to 18 meters (29.52 to 59.05 feet) per second.[13]

Surgical Masks and Respirators

Surgical Masks

Surgical masks are a commonly used protective equipment in the operating room. Surgical masks are intended for use as a barrier to protect the wearer's face from large droplets and splashes of blood and other body fluids. They can also reduce the spread of infectious liquid droplets (carrying bacteria or viruses) that are created when the wearer coughs or sneezes. They are not designed to protect the wearer from inhaling airborne bacteria or virus particles and are less effective than respirators. There is no clear evidence that disposable surgical face masks worn by members of the surgical team would reduce the risk of wound infections after clean surgical procedures.[14,15,16] It is important to note that the filtration efficiency of surgical masks varies; however, in general, surgical masks filter particles to approximately **5 microns in size.** Approximately 77% of the particulate matter in surgical smoke is 1.1 microns and smaller.

Respirators

In certain clinical situations where the potential for exposure to airborne contaminants and infectious agents exists, the use of respiratory personal protective equipment (PPE), may be required. Several types of respirators are available today; however, the ones most commonly used by HCWs generally fall into the category of air-purifying filtering facepiece respirators (FFRs).[17] These personal protective devices cover at least the nose and mouth and are composed of a filter that prevents the passage of a wide size range of hazardous airborne particulate matter, including very small (**0.3 microns or larger in diameter**) dust particles and infectious agents from entering the wearer's breathing space.[18,19] All filtering facepiece respirators must pass the specified standard certification tests. Further, all healthcare providers need to be fit tested to ensure that the HCW is wearing a surgical respirator that can provide a good facial seal and, therefore, the expected level of protection.[20] Every time a respirator is donned, the HCW should perform the manufacturer's recommended user seal check method to ensure that an adequate seal has been obtained. If the individual feels air coming in or going out around his or her eyes or chin or his or her glasses begin to fog during a user seal check, the respirator should be adjusted or replaced. It is important to note that user seal checks are not substitutes for fit tests.

In the Unites States, testing for respirators is done by the National Institute for Occupational Safety and Health (NIOSH). In Europe, respirators are tested against the relevant European Standard under the PPE Directive 89/686/EEC. Following (Table 3)[21] are some of the minimum filtration requirements according to US and European standards. It is important to recall that respirators help reduce exposure to airborne contaminants but do not prevent the inhalation of all particles.

Table 3. Respiratory Standards and Filter Efficiency[21]

Standard	Classification	Filter Efficiency
NIOSH 42 CFR 84	95	≥ 95%
NIOSH 42 CFR 84	99	≥ 99%
NIOSH 42 CFR 84	100	≥ 99.97%
EN149	FFP1 (filtering facepiece)	≥ 80%
EN149	FFP2 (filtering facepiece)	≥ 94%
EN149	FFP3 (filtering facepiece)	≥ 98%

Surgical masks and respirators are disposable, single-use devices that should be worn during a single patient encounter by one person; they should not be shared between wearers.[22] They should be discarded when it becomes wet or visibly dirty; damaged or deformed; and when it becomes contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients. They should not hang around the neck of staff or be worn outside of the OR. When discarded, hands should not touch the mask but rather the types of the mask to remove. Generally, masks should be worn for up to 3 hours. Typically, surgical masks are available in only one size. While respirators offer options such as small, small/medium, medium, medium/large, and large. Both surgical masks and respirators come in a variety of shapes.

Study Comparing Protection Offered by Surgical Mask VS N95 Respirator

A study conducted by Huckfeldt, et al recommended that the use of an N95 surgical mask/respirator should be considered during the use of electrocautery and laser and also during the care of isolation patients to protect the HCW; it should also be considered when providing care to immunocompromised patients, including those with open wounds, in order to protect those patients.[23] The study compared the protection provided for the patient from microorganism transfer from the wearer when an N95 surgical mask/respirator or a standard surgical mask was worn. In this study, 10 healthy volunteers were recruited to evaluate the amount of live organisms transmitted from the wearer's oral cavity through either an N95 surgical mask/respirator or surgical mask over a two-hour wear period. A square box was fitted with contact blood agar plates secured in a pattern previously tested to provide best microorganism collection (see Figure 1).

Figure 1 – Breathing Box and Agar Plate

Each test subject placed his head in the box with the chin comfortably resting on a chin rest for a two-hour period breathing normally. The plates were incubated at 37° Celsius (98.6° Fahrenheit) for 48 hours; colony forming units were then counted and recorded. The two-hour period was performed three times by each test subject; without a mask, with a standard surgical mask, and with an N95 surgical mask/respirator. In this study, fit testing was not performed with the N95 mask to represent the realistic pattern of use in a health care setting. The results demonstrated that during the 2-hour period during which the N95 surgical mask/respirator was worn, there was a reduction of 80.4% of collected microorganisms in comparison to the unmasked period; the standard surgical mask only provided a 50.4% reduction. Therefore, an N95 surgical mask/respirator provides improved protection for the wearer and may provide improved patient protection from transfer of microorganisms that could lead to healthcare associated infections.

Summary

It is well documented that surgical smoke contains potentially harmful, mutagenic biological materials, gases, and particulates and members of the surgical team continue to be exposed to the hazards of surgical smoke. To reduce occupational exposure to certain airborne particles contained in surgical smoke, local exhaust ventilation (LEV) and a surgical respirator is recommended.

Recommendation V of the AORN Recommended Practices for Laser Safety in Perioperative Practice Settings states, "Potential hazards associated with surgical smoke generated in the laser practice setting, should be identified, and safe practices established."[24] While LEV is noted to be the first line of protection against surgical smoke, respiratory protection (i.e., a fit tested surgical N95 FFR or high-filtration surgical mask) should be worn during procedures that generate surgical smoke as a secondary protection measure against residual smoke that escapes capture by LEV. This recommendation also includes that respiratory protection, at least as protective as a fit-tested N95 FFR, should also be considered for use in combination with

LEV in disease transmissible procedures and also during high-risk or aerosol transmissible disease procedures, as noted in the Recommended Practices for Electrosurgery.

(Paper adapted from Respiratory Protection in Surgery – Continuing Education; AORN 2014)

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