NETWORK OF ACCREDITED SKILLS CENTRES IN EUROPE

Dear Colleagues and NASCE Enthusiasts,

The 7th Annual NASCE Scientific Meeting took place in Nancy on October 12th-13th, organized by Professor Nicla Settembre and Professor Marc Braun. The event commenced with an opening speech by Prof. Emin Aksoy, Prof. Nicla Settembre, and Prof. Marc Braun. Over the course of two days, attendees were treated to a series of excellent presentations from various experts in the field. The meeting featured diverse and insightful discussions, showcasing the latest advancements and research in simulation and medical education.

First Day of the Scientific Meeting

First presentation was Presented by: Prof. Eva Feigerlova

Topic: The Multidisciplinary and Interdisciplinary Training Concept

Prof. Eva Feigerlova's presentation focused on the integration of multidisciplinary and interdisciplinary approaches in training programs, with a particular emphasis on simulation training as part of science curricula. Here are some keys point of her presentation:

1. **Simulation Training:**
    - **Definition:** Simulation training involves using realistic scenarios or simulations to provide hands-on learning experiences for students.
    - **Benefits:**
        - Allows students to apply theoretical knowledge in practical situations, making learning more engaging and effective.
        - Develops critical thinking skills as students are required to make decisions based on presented scenarios.
        - Provides a safe environment for students to practice and learn from mistakes without real-world consequences.
2. **Interdisciplinary Learning:**
    - **Definition:** Integrating knowledge, skills, and perspectives from multiple disciplines to solve complex problems or address real-world issues.
    - **Benefits:**
        - Encourages critical and creative thinking by considering different viewpoints and using diverse methods of inquiry.
    - **Challenges:**
        - Implementing interdisciplinary education can be challenging and requires careful planning and collaboration to ensure successful outcomes.

3. **Emotional Intelligence in Simulation:**
    - **Importance:** Bringing the concept of emotional intelligence into simulation training can greatly enhance the learning experience.
    - **Incorporation:** Including a range of emotions, from passive to active, can improve the realism and engagement of simulations.
    - **Balance:** While emotions can enhance learning, it is crucial to teach discipline to ensure that emotions do not hinder the learning process.

Prof. Feigerlova emphasized that incorporating simulation training into multidisciplinary and interdisciplinary education can significantly benefit students by providing practical, engaging, and effective learning experiences.

Second Presentation

Presented by: Dr. Dara O'Keeffe

Topic: Developing Human Factors in Interdisciplinary Training

Key Points Discussed:

1. **Human Factors in Healthcare:**
    - **Definition:** Human factors refer to the environmental, organizational, and job-related aspects that affect an individual's performance in their work setting.
    - **Importance:** Human factors play a crucial role in decreasing errors and improving patient safety. It encompasses not just technical skills but also non-technical skills, which are equally important.
2. **Expanding the Program and Developing New Competencies:**
    - **Program Expansion:** Dr. O'Keeffe discussed plans for expanding existing programs and developing new competencies to improve and evolve training for future medical professionals.
    - **Simulated Ward Rounds:**
        - **Collaboration:** These programs involve collaboration between nursing, pharmacy, and physiotherapy professionals.
        - **Comprehensive Training:** The goal is to provide comprehensive training that aims to reduce errors and enhance patient safety.
        - **Realistic Scenarios:** Simulated ward rounds create realistic scenarios where interdisciplinary teams can practice and refine their skills.
3. **Non-Technical Skills:**
    - Non-technical skills, such as communication, teamwork, and decision-making, are critical in healthcare settings and integrating training for these skills into medical education can lead to better patient outcomes and safer healthcare environments.

Dr. O'Keeffe emphasized that developing human factors in interdisciplinary training is essential for improving patient safety and reducing errors in healthcare.

Third Presentation

Presented by: Dr. Cecilia Escher

Topic: Teamwork and Stress in the OR

Key Points Discussed:

1. **Critical Surgery for Trauma:**
    - **Case Study:** Dr. Escher discussed a case where delays in preoperative procedures had a direct impact on the overall efficiency of the medical team.
    - **Improvement Post-Training:** After implementing medical team training programs, there was a significant improvement in team performance and a reduction in delays.
2. **Stress at Work and Staff Retention:**
    - **Issue:** Stress at work and staff retention are major problems in the medical field.
    - **Impact of Training:** Implementing proper training programs can significantly improve patient care by up to 93%. These programs are especially important for enhancing technical skills in the operating room (OR).
3. **Benefits of Training Programs:**
    - **Engagement and Transferability:** Training programs have valuable benefits such as increased engagement and transferability of skills.
    - **Teamwork Training:** Teamwork training can contribute to reducing stress on the job and lowering staff turnover.
4. **Importance of Technical Skills:**
    - **Enhancing OR Performance:** Utilizing technical skills within the OR team has shown to greatly enhance overall performance.
    - **Recommendation:** Dr. Escher highly recommended focusing on these skills to improve team dynamics and patient outcomes.

Dr. Escher emphasized that proper training programs in teamwork and stress management can lead to significant improvements in patient care and team performance.

Fourth Presentation

Presented by: Dr. Eva Doherty

Topic: Fail to Prepare, Prepare to Fail: Creating Psychological Safety to Ensure a Successful Simulation Experience

Key Points Discussed:

1. **Importance of Simulation:**
    - **Simulation Training:** Dr. Doherty emphasized the critical role of simulation in medical training. It involves creating realistic scenarios that trigger emotions such as stress, fear, or annoyance, preparing participants for unexpected reactions and ensuring effective solutions are in place.

2. **Establishing Psychological Safety:**
    - **Safe and Supportive Environment:** Creating a psychologically safe environment is paramount. This involves acknowledging any limitations during the simulation process and addressing potential concerns or fears participants may have.
    - **Confidentiality and Safe Space:** Emphasizing confidentiality and creating a space where participants feel comfortable sharing their thoughts and ideas without judgment is crucial.
3. **Benefits and Challenges of the Fiction Contract:**
    - **Advantages:** The fiction contract maximizes learner engagement, clarifies expectations, and creates a realistic, immersive experience. It helps participants commit to the simulation and take it seriously.
    - **Disadvantages:** Potential limitations of simulation-based education and the need to address these openly. Discussing both the advantages and disadvantages ensures a balanced understanding and sets realistic expectations.
4. **Purpose of the Fiction Contract:**
    - **Belief and Psychological Safety:** While the contract aims to foster belief in the simulation program, its primary purpose is to ensure psychological safety by creating a safe container for learning.
    - **Realism and Acknowledgment of Limitations:** The contract acknowledges the limitations of simulation while striving to create as realistic an experience as possible.

Dr. Doherty highlighted that the success of a simulation program relies heavily on creating an environment where participants feel psychologically safe and engaged.

Fifth Presentation

Presented by: Dr. J. Hubert and Dr. J.P. Henry

Topic: Teams Training in Robotic Surgery

Key Points Discussed:

1. **Increasing Popularity and Precision of Robotic Surgery:**
    - Robotic surgery is gaining popularity due to its precision and efficiency.
    - The technology's advancement requires changes in skills for all operating room personnel, including scrubbed assistants, nurses, and surgeons.
2. **Role of Teamwork in Robotic Surgery:**
    - While robotic surgery provides advanced tools and precision, the importance of teamwork is often overlooked, and effective teamwork is crucial for the successful implementation of robotic surgery in medical practices.
3. **Mandatory Training and Assessment for the Surgical Team:**
    - Dr. Hubert and Dr. Henry emphasized that training and assessment should be mandatory for the entire surgical team, not just the surgeons.
    - Proper training ensures that all team members are proficient in using robotic tools, thereby increasing efficiency and reducing the risk of errors or complications.
4. **Promoting Accountability and Efficiency:**
    - Pairing team members during training and assessments fosters a sense of accountability among all members.
    - If one member fails in their duties, it reflects on the entire team's performance, emphasizing the need for collective responsibility.

5. **Criteria for Effective Training:**
    - The training program should focus on four main criteria to ensure safety and efficiency:
        - **Safe Communication:** Ensuring clear and effective communication among team members.
        - **Error Violation Management:** Training team members to manage and mitigate errors effectively.
        - **External Event Management:** Preparing the team to handle unexpected events or complications during surgery.
        - **Debriefing:** Conducting thorough debriefing sessions to analyse performance and identify areas for improvement.

Dr. Hubert and Dr. Henry highlighted that robotic surgery's success heavily depends on the teamwork and collaboration of the entire surgical team.

Sixth Presentation

Presented by: Dr. Krystel Nyangoh Timoh

Topic: Operating Room Nurse Training in Robotic Pelvic Surgery

Key Points Discussed:

1. **Importance of Robotic Nurses in Pelvic Surgery:**
    - The integration of robotic nurses in pelvic surgeries is both exciting and challenging.
    - Precision is crucial in pelvic surgeries, and robotics significantly enhance the accuracy of these procedures.
2. **Team Dynamics and Training Concerns:**
    - While there is generally a good relationship among team members, there are concerns about insufficient training. Many team members worry about patient safety, emphasizing the need for comprehensive training to ensure confidence and preparedness.
3. **Impact of Effective Communication:**
    - Effective communication among team members is essential for smooth operations. It reduces operation time and costs while increasing patient safety.
4. **Urgent Need for Specific Robotic Training:**
    - There is a critical need for specialized robotic training, particularly for nurses, to address the gaps in knowledge and skills.

Dr. Krystel Nyangoh Timoh underscored the importance of specialized training for operating room nurses involved in robotic pelvic surgeries.

Seventh Presentation

Presented by: Dr. Manuela Perez

Topic: Integration of Multidisciplinary Approach in the Healthcare Curriculum/Medical Education

Key Points Discussed:

1. **Importance of Multidisciplinary Approaches in Medicine:**
    - Multidisciplinary approaches are crucial in modern medicine due to their impact on improving evasive surgical techniques.
    - Incorporating various medical disciplines into the curriculum ensures comprehensive medical education and better patient outcomes.
2. **Evolution of Simulation in Surgical Training:**
    - Initially, simulation in robotic surgery training was minimal. However, its importance and impact have grown significantly. Simulation has become an essential tool, particularly for surgeries requiring evasive techniques.
    - It allows surgeons to practice various scenarios without risking patient safety or damaging equipment.
3. **Benefits of Simulation in Surgery:**
    - Enhances the skills and knowledge of surgeons, leading to better performance in evasive surgeries. It decreases the rate of complications during surgeries.
4. **Simplification of Surgical Training with Simulation:**
    - Advances in technology have simplified the simulation process for robotic surgery compared to older surgical training methods. The new method is less complex and more effective in training surgeons.
5. **Three Phases of Simulation Training:**
    - **Cognitive Phase:** Focuses on understanding the theoretical aspects of robotic surgery.
    - **Integration Association Phase:** Involves combining theoretical knowledge with practical skills through simulation exercises.
    - **Automatization Phase:** Aims to make the skills second nature to the surgeon, ensuring seamless execution during actual surgeries.

Dr. Manuela Perez emphasized the growing importance of simulation in surgical training, particularly for robotic and evasive surgeries. The integration of multidisciplinary approaches in medical education enhances the overall competence of healthcare professionals.

Eighth Presentation

Presented by: Dr. Jean Paul Fournier

Topic: Training for Clinical Reasoning in Immersive Simulation with Peer Students

Key Points Discussed:

1. **Importance of Clinical Reasoning:**
    - Clinical reasoning is a critical component of patient care. It involves systematically gathering information, analysing it, and making informed decisions about the best course of action for patients.
    - Effective clinical reasoning ensures that healthcare professionals can accurately diagnose and treat patients, leading to better health outcomes.
2. **Starting with the Patient:**

    - The clinical reasoning process begins with understanding the patient's main concerns and reasons for seeking medical attention. This initial step is crucial as it provides valuable insights into the patient's condition and sets the foundation for subsequent steps in the clinical reasoning process.
3. **Systematic Review on Interventions:**
    - Dr. Fournier mentioned that they will be conducting a systematic review of interventions aimed at improving diagnostic decision-making.
    - This review will help identify effective methods and strategies for enhancing clinical reasoning skills among healthcare professionals.
4. **Simulation Exercise:**
    - As part of the training, students will participate in a simulation exercise designed to improve their clinical reasoning skills.
    - During this exercise, students will prepare a script and engage in various scenarios within a 15-minute timeframe. This immersive approach allows them to apply their theoretical knowledge in practical situations.
5. **Debriefing Session:**
    - Following the simulation exercise, there will be a 15-minute debriefing session. This session provides an opportunity for students to discuss their experiences, challenges faced, and insights gained during the simulation. The debriefing is a critical component of the training, as it allows students to reflect on their performance, receive feedback, and identify areas for improvement.

Dr. Jean Paul Fournier emphasized the significance of clinical reasoning in patient care and the role of immersive simulation in enhancing these skills. By starting with the patient's main concerns and systematically gathering and analysing information, healthcare professionals can make informed decisions that lead to better health outcomes.

Ninth Presentation

Presented by: Prof. Marco Ticonosco

Topic: Psychometric Assessment of Intraoperative Performance of Robot-Assisted Partial Nephrectomy by Novice and Experienced Surgeons with the GEARS Scale and Binary Metrics

Key Points Discussed:

1. **Study Objective:**
    - The primary aim of the study is to compare the reliability of intraoperative performance assessments between novice and experienced surgeons. This is done using the GEARS (Global Evaluative Assessment of Robotic Skills) scale and binary metrics.
2. **Assessment Techniques:**
    - **GEARS Scale:** This scale is utilized to evaluate the overall performance of surgeons during robot-assisted partial nephrectomy. The scale assesses various aspects such as depth perception, bimanual dexterity, efficiency, force sensitivity, and robotic control.
    - **Binary Metrics:** These are used to provide a clear, pass/fail type of assessment for specific skills and tasks during the surgery.
3. **Benchmark for Biometric Translate:**

- A specific benchmark has been established for the biometric translation of skills. This benchmark ensures consistency in the assessment of whether a surgeon can perform the surgery independently.
- Surgeons who meet or exceed the benchmark are deemed capable of performing the surgery by themselves. Those who fall below the benchmark are not permitted to perform the surgery independently, ensuring patient safety and maintaining high standards of surgical performance.

Prof. Marco Ticonosco emphasized the importance of assessing intraoperative performance using robust psychometric tools like the GEARS scale and binary metrics. The study's findings will contribute to enhancing the training and evaluation of surgeons, ensuring that they are well-prepared to perform robot-assisted surgeries with high proficiency and safety. By setting a benchmark for biometric translation, the study aims to maintain consistency and reliability in the assessment process, ultimately leading to improved surgical outcomes and better patient care.

Tenth Presentation

Presented by: Prof. Nicola Frego

Topic: Proficiency-Based Progression Training for Robotic Emergency Undocking

Key Points Discussed:

1. **Proficiency-Based Progression (PBP) Training:**
   - Prof. Frego introduced the Proficiency-Based Progression (PBP) training methodology, emphasizing its success in the first year of implementation. This approach focuses on ensuring that trainees achieve a high level of proficiency in specific skills before progressing to the next stage of their training, rather than just completing a set curriculum.
2. **Effectiveness and Growth:**
   - The PBP training method has demonstrated significant effectiveness, with first-year trainees showing remarkable growth and improvement in their skills.
3. **Focus on Skill-Building:**
   - The core of PBP training is to focus on building proficiency in essential skills.
4. **Incorporating New Skills:**
   - Prof. Frego stressed the importance of continuously updating the PBP program to include new skills and techniques relevant to the field of robotic surgery and emergency undocking. This ensures that trainees are equipped with the most current knowledge and are prepared to handle advanced and emerging challenges in their work.
5. **Robotic Emergency Undocking:**
   - Specific to the topic, the training includes critical skills for robotic emergency undocking, an essential procedure in ensuring patient safety during robotic surgeries. The proficiency-based approach ensures that all team members are well-prepared to handle emergency situations efficiently and effectively.

Prof. Nicola Frego concluded by highlighting the success of the Proficiency-Based Progression training methodology in enhancing the skills and proficiency of first-year trainees.

Eleventh Presentation

Presented by: Dr. Thomas Klein

Topic: Reduced Anxiety Among Caregivers Facing Cardiac Arrest After Simulation-Based Training

Key Points Discussed:

1. **Rise in Cardiac Arrest Incidents:**
    - Dr. Klein highlighted the increasing incidence of cardiac arrests in hospital settings, with statistics indicating between 1.5 to 2.8 cases per year.
2. **Study Aim:**
    - The primary aim of the study is to describe the long-term evolution of caregivers' anxiety levels following simulation-based training on In-Hospital Cardiac Arrest (IHCA).
3. **Simulation-Based Training:**
    - The training sessions involved realistic simulations of IHCA scenarios, followed by debriefing sessions. These simulations are designed to mimic real-life cardiac arrest situations, providing caregivers with hands-on experience and practical skills in a controlled environment.
4. **Impact on Anxiety Levels:**
    - Preliminary results suggest that simulation-based training significantly reduces anxiety levels among caregivers when facing cardiac arrest situations. This reduction in anxiety can improve caregivers' ability to respond quickly and effectively during actual cardiac arrest events, potentially improving patient outcomes.
5. **Mental Well-Being and Effectiveness:**
    - Reducing anxiety is not only beneficial for caregivers' mental well-being but also enhances their overall effectiveness in emergency situations. Lower anxiety levels can lead to better decision-making, improved communication, and more efficient teamwork during critical incidents.

Dr. Thomas Klein concluded by emphasizing the importance of simulation-based training in reducing anxiety among caregivers facing cardiac arrest. The study's findings underscore the long-term benefits of such training in improving caregivers' mental well-being and their ability to handle emergency situations more effectively.

Twelfth Presentation

Presented by: Dr. Leander De Mol

Topic: Measuring Residents’ Competences in Chest Tube Insertion

Key Points Discussed:

1. **Introduction to Chest Tube Insertion:**
    - Dr. De Mol introduced the topic by highlighting the critical nature of chest tube insertion as a lifesaving procedure. Given its invasive nature, it requires precise technique and a high level of competence from residents.

2. **Importance of Competence Measurement:**
    - The focus of the study was on measuring the competencies of medical residents in performing chest tube insertions. Accurate assessment of these competencies is crucial for ensuring patient safety and effective clinical practice.
3. **Study Design:**
    - Dr. De Mol described the design of the study, which involved using simulation models to assess residents' proficiency in chest tube insertion. The study employed various metrics and evaluation tools to measure performance accurately.
4. **Effectiveness of Simulation-Based Training:**
    - The results of the study indicated that simulation-based training is highly effective in preparing residents for chest tube insertion. Residents who underwent simulation training demonstrated significantly improved skills and confidence in performing the procedure compared to those who did not.
5. **Benefits of Hands-On Practice:**
    - Hands-on practice through simulation allowed residents to gain valuable experience without the risk of harming actual patients.
6. **Implications for Medical Education:**
    - Dr. De Mol emphasized the implications of the study for medical education. Incorporating simulation and hands-on training into the curriculum can significantly enhance the training process, ensuring that residents are better prepared for real-life clinical scenarios.

Dr. Leander De Mol concluded by underscoring the importance of measuring and developing residents' competences in chest tube insertion through simulation-based training. The study's findings support the integration of such training methods into medical education to improve procedural skills, confidence, and ultimately, patient safety.

Fourteenth Presentation

Presented by: Prof. Eva Feigerlova

Topic: Team-Based Learning (TBL) Combined with Video Vignettes Improves Clinical Reasoning and OSCE Scores of Medical Students Compared with TBL Alone

Key Points Discussed:

1. **Introduction to Team-Based Learning (TBL):**
    - Prof. Feigerlova began by introducing Team-Based Learning (TBL) as an instructional strategy designed to foster active learning and collaboration among students. TBL is known for its structured approach, which encourages teamwork and critical thinking.
2. **Study Design and Methodology:**
    - Prof. Feigerlova explained the study's design, which involved comparing two groups of medical students: one group used TBL alone, while the other group used TBL combined with video vignettes. The objective was to evaluate the impact of this combination on clinical reasoning and Objective Structured Clinical Examination (OSCE) scores.

3. **Improvement in Clinical Reasoning:**

- The study found that the group using TBL combined with video vignettes showed a significant improvement in clinical reasoning skills. The visual and contextual information provided by the vignettes helped students better understand and analyse clinical scenarios.

4. **Enhanced OSCE Scores:**
   - OSCE scores were also higher in the group that used the combined approach. The realistic scenarios depicted in the video vignettes allowed students to practice and prepare more effectively for the hands-on, practical nature of the OSCE.
5. **Engagement and Retention:**
   - The use of video vignettes increased student engagement and information retention.
6. **Implications for Medical Education:**
   - Prof. Feigerlova discussed the broader implications of the study for medical education. Integrating multimedia elements like video vignettes into traditional learning methods can enhance educational outcomes and better prepare students for clinical practice.

Prof. Eva Feigerlova concluded by emphasizing the benefits of combining Team-Based Learning (TBL) with video vignettes. This innovative approach not only improves clinical reasoning and OSCE scores but also enhances student engagement and retention.

Fifteenth Presentation

Presented by: Prof. Dieter VYT

Topic: Immersive VR Simulation to Facilitate Team Training

Key Points Discussed:

1. **Importance of Human Factors and Interdisciplinary Collaboration:**
   - Prof. Dieter VYT emphasized the critical role of human factors and interdisciplinary collaboration in effective team training. He highlighted how the integration of various disciplines and the unique skills of each team member contribute to achieving common goals.
2. **Simulation Elements:**
   - The VR simulation incorporated various elements essential for team training:
     - **Briefing:** Preparing the team by outlining the objectives and expectations.
     - **Scenario Planning:** Creating detailed and realistic scenarios for the teams to navigate.
     - **Debriefing:** Conducting post-simulation discussions to analyse performance and identify areas for improvement.
3. **Significance of Debriefing:**
   - Prof. VYT highlighted the crucial role of debriefing in the learning process. He suggested that longer debriefing sessions would facilitate "double loop learning," where participants not only reflect on their actions but also explore the reasons behind them.

4. **Exposure vs. Learning:**

    - An important observation made during the presentation was that mere exposure to simulations does not guarantee learning. Prof. VYT stressed the need to incorporate diverse learning methods, such as hands-on activities and case studies, alongside VR simulations to ensure comprehensive understanding and skill development.
5. **Interdisciplinary Collaboration:**
    - Prof. VYT emphasized that the success of VR simulations depends on effective interdisciplinary collaboration. By bringing together professionals from different fields, such as medicine, nursing, pharmacy, and emergency services, the simulations can address complex scenarios that reflect real-world situations.
6. **Benefits of VR Simulation:**
    - The use of VR simulations offers several benefits, including enhanced engagement, realistic practice scenarios, immediate feedback, and the ability to replicate rare or complex situations that are difficult to recreate in real life.

Prof. Dieter VYT concluded by emphasizing the transformative potential of immersive VR simulations in team training. By focusing on human factors, interdisciplinary collaboration, and comprehensive debriefing sessions, these simulations can significantly enhance team performance and improve patient safety.

Sixteenth Presentation

Presented by: Prof. Dilek Kitapcioglu

Topic: Debriefing in Multidisciplinary and Interdisciplinary Training

Key Points Discussed:

1. **Importance of Debriefing:**
    - Prof. Dilek Kitapcioglu emphasized that debriefing is a crucial component of simulation-based training. It is defined as a deliberate learning conversation or guide that facilitates reflection and analysis of a particular experience or event.
2. **Types of Debriefing:**
    - There are two main types of debriefing widely discussed in the literature:
        - **Clinical Debriefing:** Focuses on real-life patient encounters.
        - **Simulation Debriefing:** Specific to simulated scenarios.
3. **Stages of Debriefing:**
    - Debriefing for team training involves different stages and moral development:
        - **Dualism:** Viewing issues as black and white.
        - **Multiplicity:** Recognizing multiple perspectives without prioritizing one.
        - **Relativism:** Understanding that knowledge is contextual and complex.
        - **Commitment:** Making informed choices and commitments based on this understanding.
4. **Psychological Safety:**
    - It is crucial to create an environment where learners feel psychologically safe to fully engage in the debriefing process. This involves making them comfortable sharing their thoughts and opinions without fear of judgment or criticism.
5. **Active Participation:**
    - Learners should be active participants in the debriefing session. Encouraging them to define, study, identify, and integrate their learnings from the training program is essential for effective debriefing.
6. **Common Mental Model:**

    - During the debriefing session, it is important for all participants to share a common mental model.
7. **Benefits of Debriefing:**
    - Proper debriefing allows participants to reflect on their learning experiences and integrate new knowledge into their practices. This process not only improves individual performance but also enhances team dynamics and collaboration.

Prof. Dilek Kitapcioglu concluded by reiterating that debriefing is a fundamental aspect of simulation-based training. A well-structured debriefing session enables participants to reflect on their experiences, fosters psychological safety, encourages active participation, and ensures a shared mental model among team members.

Seventeenth Presentation

Presented by: Prof. David Gachoud

Topic: Using an Objective Structured Clinical Examination (OSCE) to Assess the Collaborative Competences of Medical Students

Key Points Discussed:

1. **Objective Structured Clinical Examination (OSCE):**
    - Prof. David Gachoud discussed the use of OSCEs to assess the collaborative competences of medical students. The goal is to prepare and equip students for their residency by ensuring they have the necessary collaborative skills and team strategies.
2. **Simulation and Traditional Methods:**
    - The assessment combines simulation-based methods with traditional OSCEs. This approach includes:
        - Simulation-based assessment, which is considered high-stakes and focuses on individual performance without debriefing.
        - OSCEs, which aim to validate and infer students' abilities in clinical settings, focusing on their competence in patient care.
3. **Structure of OSCE:**
    - The OSCE is divided into two parts:
        - **Part One:** Focuses on general clinical competences.
        - **Part Two:** Conducted with an expert, it includes additional testing and explanation, assessing students' abilities to consult and explain complex cases.
4. **Goal of OSCE:**
    - The primary goal is to assess the students' ability to provide patient care, ensuring they are prepared for real-world clinical environments.
5. **Benefits of OSCE:**
    - By integrating OSCEs and simulation-based training, students are assessed in a secure environment that mirrors real clinical settings.
    - This method provides a comprehensive evaluation of their competences, focusing on both individual and collaborative skills.

Prof. David Gachoud concluded that using OSCEs to assess collaborative competences is crucial for preparing medical students for their residency. By combining simulation with traditional assessment methods, students are evaluated on their ability to provide patient care and work effectively within a team. This approach ensures that medical students are well-equipped with the necessary skills to succeed in their future clinical practices.

Eighteenth Presentation

Presented by: Prof. Stéphane Zuilu

Topic: Multidisciplinary Teaching for Non-Technical Skills Training in Medical Education

Key Points Discussed:

1. **Focus on Non-Technical Skills:**
    - Prof. Stéphane Zuilu emphasized the importance of non-technical skills in medical education, particularly communication skills. The presentation focused on how these skills are integral to effective patient care and team collaboration.
2. **Comprehensive Education and Support:**
    - The program aims to provide thorough education and support for medical professionals by developing a simulation-based training program. This program is designed to focus on six different scenarios, each tailored to improve the communication competencies of 5th-year medical students.
3. **Simulation-Based Training:**
    - The training program utilizes simulation-based methods to give students practical experience in handling challenging conversations. These scenarios are meant to mimic real-life situations, allowing students to practice and refine their communication skills in a controlled environment.
    - The six scenarios are carefully curated to address different aspects of communication that medical students are likely to encounter, including interactions with patients, their families, and other healthcare professionals.
4. **Handling Difficult Conversations:**
    - A key component of the training involves teaching students how to handle sensitive topics such as delivering bad news. The program includes a specialized session for 6th-year medical students that focuses solely on this aspect of communication.
    - This specialized session ensures that students are not only prepared for the technical aspects of their future roles but are also equipped to manage the emotional and psychological challenges of interacting with patients and their families during difficult times.
5. **Integration of E-Learning:**
    - In addition to simulation-based training, the program incorporates e-learning modules. These modules allow students to engage with the material at their own pace and reinforce the lessons learned during the in-person simulations.
6. **Goal of the Program:**
    - The overall goal of the multidisciplinary teaching program is to enhance the communication skills of medical students, preparing them for the complex and emotionally charged interactions they will face in their careers.
    - By focusing on both practical and theoretical aspects of communication, the program aims to produce well-rounded medical professionals who can effectively navigate the human side of medicine.

Prof. Stéphane Zuilu's presentation highlighted the crucial role those non-technical skills, particularly communication, play in medical education. Through a multidisciplinary approach that includes simulation-based training and e-learning, the program is designed to equip medical students with the skills needed to handle difficult conversations and sensitive situations.

Nineteenth Presentation

Presented by: Prof. Dan Benhamou

Topic: Strengths and Weaknesses of Simulation for Healthcare Professions

Key Points Discussed:

1. **Effectiveness of Simulation:**
    - Prof. Dan Benhamou's presentation focused on evaluating the strengths and weaknesses of simulation as a teaching tool in healthcare education. He examined its effectiveness in enhancing knowledge and skills compared to traditional teaching methods.
    - Simulation has become a widely used tool in medical education, offering learners the opportunity to engage in hands-on practice within a safe and controlled environment. This approach is especially beneficial in preparing students for real-life scenarios they will face in their professional careers.
2. **Impact on Learning Outcomes:**
    - While some studies indicate that simulation significantly improves post-test results, indicating better retention of knowledge and skills, Prof. Benhamou noted that the effectiveness of simulation can vary depending on several factors.
    - In some cases, simulation has shown to be more effective than traditional teaching methods, particularly in areas that require practical, hands-on experience. However, there are instances where no significant difference in outcomes has been observed.
3. **Cost Considerations:**
    - One of the key challenges associated with simulation in healthcare education is the high cost. Full-scale simulations, which replicate entire clinical environments, can be expensive to set up and maintain. This can limit access to such resources, particularly in institutions with restricted budgets.
    - To address this issue, Prof. Benhamou introduced the concept of "task trainers" as a cost-effective alternative. Task trainers are smaller-scale simulations that focus on specific tasks or procedures, allowing students to practice and hone their skills without the need for a full-scale simulation setup. These trainers are more affordable and can be more easily integrated into medical curricula.
4. **Strengths of Simulation:**
    - Simulation offers several significant advantages in healthcare education. It allows students to practice procedures in a risk-free environment, receive immediate feedback, and repeat tasks until they achieve proficiency.
    - Additionally, simulation helps in developing critical thinking, decision-making, and teamwork skills—essential components of effective patient care that are difficult to fully address through traditional teaching methods alone.
5. **Weaknesses and Limitations:**
    - Despite its benefits, simulation also has its limitations. Prof. Benhamou highlighted that while simulation can replicate many aspects of clinical practice, it may not fully capture the complexity and unpredictability of real-life medical situations.

Prof. Benhamou concluded that while simulation is a valuable tool in healthcare education, it should be seen as a complement to, rather than a replacement for, traditional teaching methods. By combining the strengths of both approaches, educators can provide a more comprehensive and effective learning experience.

Session 5: Second Day of NASCE Scientific Meeting

Presented by: Prof. Dieter VYT

Topic: ViCosim – A Virtual Communication Simulation for Medical Students

Key Points Discussed:

1. **Introduction to ViCosim:**
    - Prof. Dieter VYT introduced **ViCosim**, a new virtual communication simulation designed to enhance medical students' communication skills. This simulation is being integrated into the curriculum to provide students with hands-on experience in realistic scenarios, helping them prepare for the challenges they will face in their professional careers.
2. **Role-Playing and Experiential Learning:**
    - The core of ViCosim involves role-playing among students. In these simulations, students take on various roles, engage in realistic interactions, and observe each other's reactions. This approach allows them to actively practice and refine their communication skills in a controlled yet dynamic environment.
    - Prof. VYT emphasized that such experiential learning is crucial for developing effective communication abilities, which are essential in the medical field, where clear and compassionate communication can significantly impact patient care.
3. **Curriculum Integration:**
    - ViCosim is carefully integrated into the curriculum, ensuring that the simulations align with the educational goals and learning outcomes of the students. Prof. VYT highlighted the importance of anchoring these simulations in the curriculum to ensure that they are relevant and meaningful.
4. **Objectives of ViCosim:**
    - The main objective of ViCosim is to create a realistic, role-playing environment where students can interact with one another, learning through observation and participation. This setup not only enhances their communication skills but also fosters confidence and teamwork.
5. **Benefits of ViCosim:**
    - **Enhanced Communication Skills:** Through repeated practice in a safe, simulated environment, students can improve their ability to communicate effectively with patients, peers, and other healthcare professionals.
    - **Teamwork Development:** The collaborative nature of the simulation helps build teamwork skills, as students must work together to navigate the scenarios and support each other’s learning.

Prof. VYT concluded by underscoring the importance of ViCosim in the medical education curriculum. By providing students with opportunities to engage in realistic, communicative role-playing, ViCosim helps bridge the gap between theoretical knowledge and practical application, better preparing students for their future roles as healthcare professionals.

Presentation by Prof. Isabelle Dehaene and Prof. Allison Demesteer

Topic: Multidisciplinary Training in the Delivery Room and Perinatal Unit

Key Points Discussed:

1. **Overview of the Training Program:**
    - Prof. Isabelle Dehaene and Prof. Allison Demesteer presented a multidisciplinary training program designed for healthcare professionals working in the delivery room and perinatal unit. This training is tailored for midwives, ObGYNs (Obstetricians and Gynecologists), anesthesiologists, and the neonatal team. The training occurs on-site with real patients, emphasizing confidentiality and realism in practice.
2. **Focus Areas:**
    - The training emphasizes both technical skills and non-technical skills, with a particular focus on communication. The importance of clear and concise communication is highlighted, especially in high-pressure environments like the delivery room.
3. **Leadership and Teamwork:**
    - Effective leadership is identified as a crucial component of the training. Leaders in the delivery room are encouraged to guide their teams towards achieving optimal outcomes by setting clear expectations, providing guidance, and being receptive to feedback. Teamwork is also emphasized, focusing on how collaboration and open communication can enhance efficiency, productivity, and overall patient care.
4. **Addressing Challenges with New Generations:**
    - One challenge noted by Prof. Dehaene and Prof. Demesteer is the increased anxiety and apprehension among newer generations of students and healthcare professionals. To address this, the training includes the use of real patients, materials, medications, and technology, such as filming the procedures.
5. **Results and Benefits:**
    - Over the past five years, the training program has shown significant benefits. These include enhanced communication between team members, improved cooperation, better role assignments, and more efficient decision-making.
    - The training has also led to practical outcomes, such as the revision of protocols and the introduction of memo cards that team members can carry in their pockets for quick reference.

Prof. Isabelle Dehaene and Prof. Allison Demesteer's presentation highlighted the importance of multidisciplinary training in the delivery room and perinatal unit, focusing on technical skills, non-technical skills, communication, leadership, and teamwork.

Presentation by Prof. Cedric Dumas

Topic: Research in Procedural Simulation/Collaboration with Medical Engineers and Paramedical Research

Key Points Discussed:

1. **Overview of the Training Program:**
    - Prof. Cedric Dumas provided an overview of their medical training and simulation program, which aims to improve procedural skills among healthcare professionals. The program is designed to offer realistic training experiences using mannequins and human actors, allowing trainees to practice in environments that closely mimic real-life scenarios.
2. **Innovative Training Techniques:**
    - The program incorporates advanced training techniques such as self-confrontation interviews and posture tracking.
        - **Self-confrontation interviews** involve reviewing video recordings of the trainees' performance to facilitate self-assessment and reflection.
        - **Posture tracking** is used to monitor and assess the physical movements of trainees during simulations.
3. **Collaboration with Medical Engineers and Paramedical Research:**
    - Prof. Dumas emphasized the importance of collaboration between healthcare professionals and medical engineers in developing and refining simulation tools. By working together, they can create more effective and accurate training methods that better prepare healthcare professionals for real-world challenges.
    - Paramedical research plays a key role in this collaboration, as it helps to validate and improve the training methods used in the program.
4. **Role of Virtual Reality (VR) in Medical Training:**
    - While Virtual Reality (VR) is gaining traction across various industries, Prof. Dumas expressed some reservations about its application in medical training. He pointed out that VR can be costly and may not always offer the same level of realism or hands-on experience that traditional simulation methods provide and however, he acknowledged that VR can still be a valuable tool in certain contexts, particularly for scenarios where physical simulations may be difficult to replicate. For example, VR might be beneficial in teaching complex procedures or in situations where real-world practice is not feasible due to ethical or logistical constraints.
5. **Balancing Technology with Practical Training:**
    - Prof. Dumas stressed the need for a balanced approach in medical training. While technology like VR has its place, it should complement rather than replace traditional methods that provide tactile and realistic experiences. The goal is to ensure that trainees develop both the technical skills and the critical thinking necessary to excel in their field.

Prof. Cedric Dumas' presentation highlighted the ongoing research and collaboration efforts in procedural simulation training, underscoring the importance of realistic, hands-on experiences through mannequins, human actors, and innovative techniques like self-confrontation interviews and posture tracking.

Presentations on Leadership, Interprofessional Simulation, and Interprofessional Education

1. Presentation by Prof. Deborah Jaeger:

Topic: Leadership and Interprofessional Simulation in Emergency Situations

Key Points Discussed:

- **Simulation as a Training Tool:**
  - Prof. Deborah Jaeger emphasized the use of simulation for emergency situations in healthcare. The simulations involve mannequins, human actors, and increasingly, Artificial Intelligence (AI) to create realistic and dynamic scenarios.
  - The primary goal of these simulations is to allow healthcare professionals to make mistakes in a controlled environment—the lab—so that they can avoid these mistakes in real-life situations. By practicing in these simulated environments, professionals are better prepared and likely to make fewer errors when dealing with real patients.
- **Focus on Leadership and Teamwork:**
  - Leadership is a critical component of improving outcomes, particularly in emergency situations where survival rates can be significantly affected by the effectiveness of team interactions.
  - Communication is identified as the most vital skill in both teamwork and leadership. While technical skills are important, the ability to communicate clearly, assign roles, manage stress, and conduct debriefings effectively is essential for team success.
  - Prof. Jaeger highlighted the connection between good leadership and the quality of Cardiopulmonary Resuscitation (CPR). A good leader in a crisis should be able to see the big picture, make decisions quickly, and ensure that every team member understands and executes their role effectively.
- **Non-Technical Skills:**
  - Non-technical skills, including leadership, cooperation, resource management, and stress management, are crucial in emergency situations. The simulations are designed not only to train specific procedures but also to improve these non-technical skills, which are essential for the overall performance of the team.

2. Presentation by Prof. Daniel Aiham Ghazali:

Topic: Interprofessional Education (IPE) – "Yes, but …?!"

Key Points Discussed:

- **Understanding Interprofessional Education (IPE):**
  - Prof. Daniel Aiham Ghazali discussed Interprofessional Education (IPE) as an experience where students from multiple healthcare professions learn about, from, and with each other. This collaborative learning approach is designed to enable effective teamwork and improve health outcomes.
  - IPE is not meant to replace the existing education system but to enhance it by fostering interprofessional technical skills and bridging the gap between academic knowledge and practical skills required in clinical settings.
- **Implementation of the 5W and H Framework:**
  - The program integrates the **5W and H questions—Who, What, Where, When, Why, and How**—to structure the learning and collaboration process.

        - **Who:** Identifies the roles of different professionals involved in patient care.
        - **What:** Focuses on what each professional contributes to the team.
        - **Where:** Clarifies where the collaboration takes place (e.g., hospital, clinic).
        - **When:** Establishes the timing for when different team members should intervene.
        - **Why:** Explains the reasons for each professional's actions.
        - **How:** Details how the team should work together to achieve the best outcomes.
- **Challenges in IPE:**
    - While IPE is recognized for its potential to improve collaboration and health outcomes, Prof. Ghazali acknowledged that there are challenges in its implementation. These include aligning the different schedules and curricula of various professional programs and ensuring that students fully engage with the interprofessional learning process.

Abstract Session Summary - Session 6

1. Presentation by Prof. Come Slosse: Topic: Transdisciplinary in Obstetrics: New Simulation Training Program to Optimize Collaborative Care

Key Points Discussed:

- **Content Curation in Simulation Training:**
    - Prof. Come Slosse introduced the concept of content curation within a transdisciplinary simulation training program in obstetrics. Content curation involves the process of finding, elevating, commenting on, sharing, and retrieving information for later use. This method is particularly beneficial for active or hybrid learning environments.
    - The simulation training aimed to improve collaborative care in obstetrics by integrating diverse and relevant topics such as Alzheimer's disease, cancer, organ grafts, and HIV into the curriculum.
- **Results and Evaluation:**
    - Before the implementation of the content curation method, there was a noticeable lack of course literacy, prior knowledge, and specific training among participants. However, after introducing this approach, there was a significant increase in the diversity of topics covered, enhancing the breadth of knowledge among participants.
    - Evaluations and surveys conducted post-training showed very positive responses, indicating that this method effectively enhanced the participants' learning experiences and improved their collaborative care skills in obstetrics.

2. Presentation by Prof. Nicola Frego: Topic: Train the Trainers for the Delivery of Proficiency-Based Progression Training by the European Robotics Surgical Section Fellowship Centres.

Key Points Discussed:

- **Concerns in Traditional Surgical Training:**
    - Prof. Nicola Frego discussed the challenges in traditional surgical training methods, particularly noting that over 30 surgeons were deemed unfit after undergoing surgical technique training. This raised significant concerns about the effectiveness of the current training methods.

- **Need for Change:**
    - In response to these concerns, Prof. Frego advocated for a change in training methodology, specifically through the introduction of proficiency-based progression training. This new approach is designed to ensure that surgeons are adequately trained, leading to better outcomes not only for the surgeons themselves but also for their future patients.
    - The European Robotics Surgical Section Fellowship Centres are now focusing on training the trainers to deliver this proficiency-based progression training effectively, emphasizing the importance of a well-structured and rigorous training program.

3. Presentation by Prof. Laure Joly: Topic: Training of Trainers: A Toolbox for Resident Supervisors

Key Points Discussed:

- **Goal of the Training Toolbox:**
    - Prof. Laure Joly presented a toolbox for resident supervisors aimed at developing a dynamic and adaptable training system in collaboration with the university. This system is designed to be applicable to any medical specialty.
    - The primary goal is to ensure that supervisors understand and can effectively use the regulatory framework associated with extra-hospital internships. This includes being knowledgeable about the relevant administrative elements.
- **Motivation and Authenticity in Training:**
    - The training program also seeks to enhance the motivation of resident supervisors through a dynamic process. This is achieved by proposing simulation-based approaches to make the training more authentic and reflective of real-life scenarios, thereby improving the quality of supervision and training provided to residents.

4. Presentation by Dr. Gerard Audibert: Topic: Cognitive Aids and Critical Events: A Way to Save Lives

Key Points Discussed:

- **Importance of Cognitive Aids in Critical Events:**
    - Dr. Gerard Audibert highlighted the crucial role of cognitive aids in managing critical events in medical practice. Cognitive aids, such as checklists and algorithms, are designed to support healthcare professionals during high-pressure situations, ensuring that critical steps are followed correctly.
- **Challenges in Implementation:**
    - One of the key challenges discussed was that certain steps in the algorithms were not always properly followed, which can lead to serious complications, particularly in procedures like intubation. Such oversights can have severe consequences on patient health.
- **Simulation-Based Assessment:**
    - Prof. Audibert emphasized that cognitive aids have been primarily assessed through simulation-based testing. Before deploying these aids in real-world settings, it is essential to test them thoroughly to ensure they are effective in reducing medical errors, improving the timing of interventions, and enhancing technical skills among healthcare professionals.

5. Presentation by Prof. Nguyen Tran: Topic: Interdisciplinary Surgical Training Centre: How to Build It?

Key Points Discussed:

- **Role of Simulation in Surgical Training:**
  - Prof. Nguyen Tran discussed the establishment of an interdisciplinary surgical training centre and the integral role of simulation in reducing costs and minimizing mistakes in surgical training.
- **Innovation in Pedagogy and Techniques:**
  - The presentation focused on the need for continuous innovation in pedagogy and surgical techniques. By developing new training programs and advanced techniques, training centres can enhance the skills of their surgeons, leading to better patient outcomes and more efficient surgical practices.

Closing Remarks and Achievements:

At the conclusion of the two-day meeting, several abstracts were presented, and three winners were selected for their outstanding work. These individuals were awarded prizes in recognition of their contributions to medical education and training. Additionally, several NASCE centres were awarded certificates of re-accreditation for another four years. This achievement underscores the high standards maintained by these centres in providing quality medical training.

Dr. Van Herself encouraged all centres seeking accreditation by UEMS (Union Européenne des Médecins Spécialistes) to submit their applications promptly. This is a valuable opportunity for centres to become part of the NASCE accredited network, which is recognized for its excellence in medical training across Europe.

Dr. Aksoy extended an invitation to all accredited centres to attend the next business meeting. This meeting will provide a platform for networking, idea exchange, and collaboration among accredited centres from various parts of Europe.