Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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grow. There is a great gap in coverage of OH services and a shortage of competent OH personnel. The Session will analyze the new challenges for the E&T of OH specialists throughout the world and propose new strategies for training curricula. The SC Education and Training in OH and SC OH Nursing are invited to contribute.

**Sp46-1**

**Need for modern harmonized curriculum for occupational health professionals**

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To provide good OH services, the personnel of OH has to be well trained. Physicians, nurses, physiotherapists and psychologists need sufficient theoretical knowledge and practical skills. The quality of OH service is closely related to the competence of OH personnel. OH aims to prevent accidents, occupational diseases and harmful exposure related to work. Assessment and support of workability are in the focus of OH activities. OH service is multi-professional team work. OH professionals need to communicate with other experts and understand the basics of relevant science which is needed in daily work. To adequately assess workplaces, OH personnel has to know how to recognize potential hazards, assess residual risks after taking account of controls in place, and how to make appropriate recommendations. OH personnel has also to be able to assess psychosocial issues and physical injury but also the ability to communicate effectively. Assessment of fitness for work and support workability are in focus of OH actions. OH has to know how to use workplace restrictions, potential adaptations and rehabilitation if needed. OH personnel has to be trained for evidence-based practice and to make appropriate recommendations in order to maximize the health and wellbeing of the workers and minimize any harm caused by work. The goals in OH training are a healthy and safe work environment, a healthy worker whose workability is good, and a work community that supports health and well-being. For this we need to update curricula to all OH professionals.

**Sp46-2**

**Occupational medicine training in Korea**

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From the 1970s' to 1980s', Korea experienced rapid changes in its industrial structure. Occupational diseases outbreaks have occurred in late 80's and early 90's, but the diagnosis of occupational diseases has been difficult. The demand for expertise in corresponding to occupational diseases has risen. In 1996, at the request of the Ministry of Labour, Ministry of Health approved a new specialty on occupational medicine. As same as many other specialties on medicine, occupational medicine education and training takes four years after one year of internship. The residency program includes 360 hours of classes about occupational and environmental medicine and public health such as occupational diseases, health promotion, epidemiology and statistics, 30 months of occupational and environmental health practice, 3 months of toxicology practice, and 12 months of clinical medicine training. There are mandatory requirements for training institutes including two or more board-certified occupational and environmental medicine specialists, spaces for the clinic, and equipment for disease diagnosis and work environment assessment. As of 2021, there are 35 quotas for training annually, and 31 training institutes. As the number of board-certified specialists have been increased, there are 899 occupational and environmental physicians as of 2021. The recent task and challenge of medical education and training in Korea is so-called competency-oriented training. We are developing the entrustable professional activities and core competencies for occupational and environmental medicine training.

**Sp46-3**

**Best practices of training Latin America experts in occupational health**

João Silvestre Silva-Junior

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Occupational Health training (OHT) is a relevant topic. It deserves special attention particularly during critical public health conditions such as COVID-19 pandemic. Investment developing human capital included OHT debate and practice are needed to achieve positive results. Occupational Health (OH) professionals deal with human lives and should be fully capable to effectively perform their duties. The Latin American scenario is complex, and countries of the region experience distinct social and economic development stages. These differences impact the recognition of workers' health in national policies. Labor and health legislations play a regulatory role implementing OH practices in productive processes of different job sectors. The presentation aims to show OHT of three Latin American countries - Brazil, Colombia, and Mexico. Those are the most populous of the region. It will be presented regulations and legal requirements for the provision of professional services in the OH field. Topics related to training of OH physicians and nurses will be the focus of the presentation, in order to point out whether classical and emerging issues are taken into account in academic curricula. Additionally, it will be shown the importance given to development of core competences required for OH practice, considering educational programs and strategies. This is necessary to establish the required training in order to deal with regional challenges concerning protection, promotion, and maintenance of workers' health.

**Sp46-4**

**New challenges in the training of occupational health nurses**

Kim Davies

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Introduction: The training for Occupational Health Nurse has changed within the last couple of years and more so during the COVID-19 Pandemic.

Materials and Methods: In the digital age, learners neither have the patients nor can read long chapters in books. Therefore, learning material and style need to change to incorporate the learning method. Training methods have been adopted to accommodate a new way of training millennial students, accounting for learning needs and methods changes. Material needs to be more accessible to entice the students to learn and research information required for the curriculum they are studying by incorporating more visual
resources such as graphs, videos, tables, and technology. Innovative learning material needs to be developed to ensure students are engaged and trained adequately within the field of Occupational Health. Practical studies have become the norm and will assist students in this field. Training during COVID - 19 has taught us that change is challenging but also very rewarding.

Results: While assisting with Occupational Health training at a tertiary institution and developing course material, it became evident that learning, course and delivery method need to be developed and updated within the digital age.

Conclusions: Training and courses provide students with awareness and understanding of workplace hazards and how to identify, report, and control them. As the Occupational Health nurse is part of the multidisciplinary team, it is critical that training addresses this new way of thinking that equips nurses for all aspects of the working field.

**Special Session 47 New challenges to professional ethics in occupational health**

Chair: Jorma Rantanen

**Session introduction**

Several professional organizations on occupational health and safety, including the International Commission on Occupational Health (ICOH), have drawn codes of ethics for their memberships based on the Hippocrates Oath.

Globalization with all its ramifications, such as the pandemics, is setting new demands and has changed substantially the conditions of operation in professional practices, not least in occupational health. It is important to identify the new challenges to professional ethics and discuss the strategies for ensuring high ethical standards of occupational health professionals throughout the world and to defend the right to ethical conduct and professional independence of occupational health experts in the new globalizing world of work.

**Sp47-2**

**Ethics and Occupational Health: From the changing world of work to the future challenges of the COVID-19 pandemic**

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Introduction: The ethical dilemmas confronting occupational health are becoming more complex as they reflect changes in the world of work, demographic shifts, new technologies and future challenges to public health due to the spread of the COVID-19 pandemic. This scenario is setting new contexts for occupational health physicians (OHPs) in their tasks and professional conduct, emphasizing the role of OHPs in balancing between individual (i.e. the health and working capacity of individual employees), enterprise (i.e. maximize the production) and community (i.e. the health and safety of the community at large) interests. This study looks at the problems raised by these ethical concerns in occupational health and proposes some solutions.

Materials and Methods: Thanks to a comprehensive analysis of ethical decision-making models in occupational health, we identified some drivers and barriers for correct professional ethics that can represent a starting point to acknowledge some proposals for ethical solutions.

Results: There has been no systematic attempt to study the true extent of ethical issues and how they are resolved in practice. In fact, the presence of numerous variables to be taken into consideration, as well as the growing number of potential stakeholders involved in ethical choice, prevented the identification of an ideal proposal able to solve ethical challenges in OHPs practice.

Conclusions: To deal with the ethical dilemmas in today’s changing world of work and the pandemics, the logic of an integrated approach must take account the importance of all three types of ethics: personal (individual), professional and institutional.

**Sp47-3**

**Challenges from the COVID-19 pandemic to professional ethics in occupational health**

Jorma H. Rantanen

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Introduction: The prevention and management of the COVID-19 pandemic present several ethical challenges to occupational health (OH). The scientific evidence, OH realities, and ethical aspects provide parallel imperatives, but they may be in conflict with the non-medical interests in politics, economy, business, or in contrast between public health and private interests. The ethical challenges in the pandemic policies are critically dependent on equity, solidarity, and justice.

Materials and Methods: Key (pertinent) challenges to OH in the present COVID-19 pandemic situation were recognized in the recent policy documents of the WHO and ILO and the recent research articles on the ethical challenges involved. Major challenges in OH were recognized at all levels: global, national, company and individual levels.

Results: Grave inequities prevail in the policies and practical actions for COVID-19 in the global world of work. OH aspects in the pandemic policies and practices have not received sufficient attention in terms of the recognition of high-risk work environments and jobs, high-risk individuals, prevention, protection and rehabilitation at work post-COVID-19, and recognition and compensation of COVID-19 as an occupational disease. Ignorance, unpreparedness, late or non-action, and inequities present ethical problems.

Conclusions: Gaps in ethics mean also gaps in effective and equal prevention, management, rehabilitation and compensation. From a perspective of ethics and effectiveness, the identification of gaps provides a vitally important lesson, not only in the present pandemic, but also for future ones.

**Sp47-4**

**Codes and guides on professional ethics for non-medical / multidisciplinary occupational health experts**

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