Abstracts Book

Summary

European Conference of Health Workforce Education & Research

We are very pleased to announce that the European Conference of Health Workforce Education & Research will take place at the National School of Public Health in Athens, Greece on Thursday 24th and 25th May 2018. Hosted in collaboration with the National School of Public Health, the International Network for Health Workforce Education hosts this conference to promote interdisciplinary co-operation and critical understanding of the latest research in the field of health workforce education, training and development within continental regions and beyond. The Conference brings together researchers, educators, trainers and policy makers from around the world who are engaged and active in health workforce education.

Conference Theme: Leadership, Communication and Intercultural Education

Leadership, Communication and Intercultural Education for health professionals, the theme of the European Conference on Health Workforce Education and Research, is at the very top of political and research agendas. Health professionals are dealing with constant changes to both the health systems they work in and the patients they serve. Equipping the health workforce with the skills to deal with this change is of the upmost importance for healthcare educators, researchers and policy makers. Leadership, Communication and Intercultural Education are three distinct but interrelated topics that are assisting health professionals adapt to their changing environment.

Leadership training for health professionals has been on the rise since the early 1990's when 'new public management' changed the opinion of policy makers and catapulted leadership skills to the top of the public-sector agenda. Rising financial and operational pressures to health systems in recent years have placed an ever increasing responsibility on all health professionals to conduct their activities with the wider health system in mind. Healthcare education has thus looked to increased leadership training as a way of equipping health professionals to deal with such pressures.

During the same period patients have changed from passive 'consumers' of healthcare to active participants, increasing the need for effective communication between all stakeholders in patients' care packages. Effective communication between health professionals and patients has been found to have a positive impact on decreasing readmission rates, understanding treatment options, helping to achieve adherence to treatment, increasing the consistency of following a medication schedule, saving costs, and improving overall health outcomes for patients.

Lastly, EU mobility and an increased number of displaced persons across the globe now makes intercultural training for health professionals a necessity, especially with the health workforce often being the first point of contact for many migrants. The EU Skills Panorama (2014) states that health professionals should develop their skills in line with broader societal trends and influences. Researchers and policymakers have also added their voices to calls to develop the range and quality of intercultural competences.

Thursday 24 May 2018, 09.30-11.00

INTER-PROFESSIONAL EDUCATION SESSION

World Health Organisation states that after almost 50 years of enquiry, there is significant evidence to indicate that effective inter-professional education is a key innovative strategy that enables effective collaborative practice and that it plays an important role in mitigating the global health workforce crisis. This session focuses on inter-professional education with four presentations on the topic from a practice and research perspective.

2018114: Strengthening Interprofessional Collaboration through Joint Learning Seminars (SiHaKo)

Mrs. Heike Penner, University Hospital of Munich, Germany

2018106: Seeing the bigger picture: The influence of national culture on Interprofessional Education (IPE)

Dr. Marjorie Bonello, University of Malta, Malta

2018148: Developing an interprofessional online medication system for people with long term conditions

Prof. Lesley Diack, Robert Gordon University, United Kingdom

2018141: Non-linear asynchronous human patient simulation as an advanced method for teaching healthcare providers

Dr. Valeriy Kozmenko, USD Sanford School of Medicine, United States

INTERCULTURAL SESSION

The EU Skills Panorama (2014) states that health professionals should develop their skills in line with broader societal trends and influences. In the context of increasing mobility and high numbers of displaced persons, researchers and policymakers have also added their voices to calls to develop the range and quality of intercultural competences. This session provides three different examples of how to improve intercultural education.

2018109: Skills in conflict management and negotiation of diagnostic and therapeutic technicians

Dr. Vanda Pedrosa, Health Center, Portugal

2018149: Intercultural issues experienced by international students on practice placement in the United Kingdom

Ms. Jacqueline Shanley, Coventry University, United Kingdom

2018152: Greek Nursing Workforce and Transcultural Competencies in Healthcare Provision

Ms. Stergiani Balouka, National School of Public Health, Greece

Thursday 24 May 2018, 11.00-12.30

COMMUNICATION SESSION

There is an increasing need within health systems for effective communication between all stakeholders in patients' care. Effective communication between health professionals and patients has been found to have a positive impact on decreasing readmission rates, understanding treatment options, saving costs, and improving overall health outcomes for patients. This session addresses multiple examples of improving health workforce communication.

2018115: Coaching approaches among medical students, health professionals and individuals in their educational environment

Prof. Lidia Georgieva, Medical University Sofia, Bulgaria

2018127: International analysis of dentist needs in terms of interpersonal communication with patients

Mrs. Inga Kolomyjska, KIKO Educational Solutions Sp. zo. o., Poland

2018134: The Significance of a Sensory Garden in the Formation of "The Room of Closeness"

Ms. Inger-Lise Magnussen, Nord University, Norway

2018144: Developing Medical English Courses which Reinforce Patient Centred Communication Skills, Involve Intercultural Training and Instil Leadership Skills

Ms. Maria Chionis, National and Kapodistrian University of Athens, Greece

PANEL SESSION: GENDER BARRIERS IN HEALTH WORKFORCE SUSTAINABILITY

Vulnerabilities in health systems underscore the need for competent and inclusive healthcare leadership. Gender inequalities such as unequal opportunities in education, recruitment and career advancement, stereotypes and work/life imbalance, impede development of such comprehensive leadership. The workshop aims to show how the lack of gender equality, diversity and leadership adversely impact upon health and development outcomes; how healthcare workforce diversity could equalize opportunities and overcome barriers to achieve efficient governance and sustainability responsive to pressing needs of patients, the health workforce and systems.

2018123: Gender Barriers in Health Workforce Sustainability

Ms. Valia Kalaitzi, Professor, Mendor Editions/Maastrich University, Greece

Prof. Suzanne Babich, Indiana University RM Fairbanks School of Public Health, United States

Thursday 24 May 2018, 14.00-15.30

LEADERSHIP SESSION

In health systems today, leadership is not confined to those in management positions. It has been proven that leadership development improves leadership behaviours and better leadership leads to better patient care. Policy makers are placing an increasing emphasis on health workforce leadership development and this session analysis's a range of tools, models, programmes and expertise to support educators, research and those in policy positions to implement and assess leadership development in their own country.

2018102: Leadership development for undergraduate nursing students through action learning sets

Ms. Alison James, Cardiff University, United Kingdom

2018112: What is caring in nursing leadership – a meta-synthesis

Mrs. Rita Solbakken, Nord University, Norway

2018118: Clinical leadership: how can we define and recognize leaders in bedside nursing care?

Mrs. Sabrina Nachtergaele, Artevelde University College, Belgium

2018132: Shaping the future of Clinical Research: Advanced Leadership Programme

Ms. Jess Radcliffe, NIHR, United Kingdom

INTERACTIVE WORKSHOP

The workshop will discuss the importance of intercultural competences and communication in the professional-patient relationship. Furthermore, InterHealth's mobile application on ethnological perspective and diverse illness-perceptions of patients will be demonstrated. The session will incorporate a breeding ground for networking and exchange of good practices on providing healthcare services to people coming from diverse cultural backgrounds.

2018163: InterHealth Project: Intercultural Competences for Healthcare Professionals

Mrs. Ioanna Papadopoulou, IASIS NGO, Greece

Miss Loukia Chaidemenaki, IASIS NGO, Greece

Dr. Theodoula Adamakidou, Technological Educational Institute of Athens, Greece

Mrs. Marianna Mantzorou, Technological Educational Institute of Athens, Greece

Friday 25 May 2018, 09.30-11.00

LEADERSHIP SESSION

Leadership training for health professionals has been on the rise since the early 1990's when 'new public management' catapulted leadership skills to the top of the public-sector agenda. Rising financial pressures have placed an ever-increasing responsibility on health professionals to conduct their activities with the wider health system in mind. This session takes a holistic view of leadership for the health workforce within the complete health system.

2018105: Systems thinking in education: preparing for leading innovation in complex dynamic health systems

Prof. Adrian Schoo, Flinders University, Australia

2018135: Developing A Leadership Attributes Development Tool for Pharmacists

Mrs. Nadia Bukhari, UCL London, United Kingdom

2018151: Profession leadership though professional societies: driving workforce change

Ms. Kristin Michaels, The Society of Hospital Pharmacists of Australia, Australia

2018155: "Flatten the hierarchy!", "Lead from the top!": How to navigate the contradictions of complex organisational structures in practice

Ms. Emma Lowe, Department of Health and Social Care, United Kingdom

DEVELOPING TEAMS SESSION

Developing highly functioning teams of health professionals is crucial to ensuring a "collaborative practice ready" health workforce that is better prepared to respond to local health needs. It is proven that team development and collaborative practice strengthens health systems and improves health outcomes. This session includes four presentations that assess this topic within the wider context of health systems and multi-professional working.

2018146: Educating for collaborative practice: a literature interpretation generating reflective questions

Prof. Judith (Nicky) Hudson and Anne Croker, University of Adelaide, Australia

2018113: Development teams for innovative nursing care

Prof. Terese Bondas, Nord University, Norway

2018160: Cost-effective method of enhancing long-term knowledge retention for high fidelity simulation

Dr. Valeriy Kozmenko, USD Sanford School of Medicine, United States

2018161: The Impact of Simulation on Paediatric Nursing Students' Knowledge, Self-efficacy, Satisfaction, and Confidence

Dr. Hala Saied, King Saud Bin Abdulaziz University for Health Science, Saudi Arabia

Friday 25 May 2018, 11.00-12.30

WORKFORCE EDUCATION SESSION

Changing patterns of health and illness with growing multi-morbidity and ageing societies create new demand for health and social care services and professional competences. Creating a sustainable and people-centred health workforce is increasingly recognised in Europe and globally as being key to adapting changing health systems. This session assesses four areas of research that explore how to make a future health workforce occur that is both sustainable and adaptive.

2018116: Selecting the "right" candidates for health professions education: why is it so difficult?

Prof. Gilles Dussault, Instituto de Higiene e Medicina Tropical, Portugal

2018117: Changes in medical education in Bulgaria for the 21st century

Dr. Nikolai Hristov, Medical University Sofia, Bulgaria

2018100: Occupational Therapy Europe: The collaboration of academics, practitioners and researchers to promote and develop the delivery of occupational therapy services in Europe

Dr. Panagiotis Siaperas, European Network of Occupational Therapy in Higher Education (ENOTHE), Greece

LEADERSHIP SESSION

Leadership education can come in many forms; from formal accreditation, theories and frameworks comprehension, problem solving approaches, mentoring, and enhanced networking. This session looks at some of these approaches while also assessing various leadership strategies necessary to support and sustain curriculum development in the health education setting such as curriculum change, resource allocation and environment challenges.

2018136: Leadership in Pharmacy: A Global Overview

Mrs. Nadia Bukhari, UCL London, United Kingdom

2018122: Professional Experience with Health and Social Care Organisations as an Innovation and Enhancement in the Up-skilling of future generations of global health leaders

Mr. Adam Layland, Coventry University, United Kingdom

2018147: Leadership: driving changes in medical education to address population health needs

Prof. Judith (Nicky) Hudson and Kathryn M Weston, University of Adelaide, Australia

2018158: Leadership: Is a new approach needed when it comes to digital?

Ms. Jess Radcliffe, NIHR, United Kingdom

Friday 25 May 2018, 14.00-15.30

WORKFORCE RESEARCH SESSION

Transformation of the health workforce to ensure it is prepared for practice requires learning from innovative experiences in health workforce policy-making, governance, planning, education, skills-mix, regulation, management, and work arrangements. This session presents an opportunity to discuss these innovations that make the health workforce fit-for-purpose and have positive impact on the availability, accessibility, affordability, and quality of health services.

2018125: Driving forces for migration of Bulgarian doctors

Prof. Lidia Georgieva, Medical University Sofia, Bulgaria

2018126: The experiences of female Sudanese doctors and medical students in career decision-making

Dr. Nabtta Bashir Hamad Mohamed, University of Dundee, Sudan

2018128: Improving Graduate Employability and Career Counselling in Medical Students

Miss Chevonne Brady, University of Dundee, United Kingdom

2018121: Is it necessary to design and implement an international program for best practices of PHC?

Dr. Hassan Khani Iurigh, Ghaemshahr Health Center, Mazandaran University of Medical Sciences, Iran

PANEL SESSION: LEADERSHIP, COMMUNICATION & INTERCULTURAL ISSUE IN PAEDIATRICS

Paediatrics plays an important part in the healthcare field, as well as the health and wellness of children. This session looks takes the three inter-related conference themes and assesses these within the context of a paediatric setting. The panel session will give both those directly involved and those who are not directly involved in paediatrics tools and resources needed to improve the quality of care and patient outcomes.

2018142: Severe necrotising pneumonia in an infant: A case of serotype 3 pneumococcal conjugate vaccine failure

Dr. Germaine Chia, Imperial College Healthcare, United Kingdom

2018145: Teicoplanin-induced anaphylactic reaction in Children: Is it really rare?

Dr. Leila Ahmed, Imperial College Healthcare, United Kingdom

2018153: Is antibiotics of any use in the management of Granuloma Annulare in Children?

Dr. Germaine Chia, Imperial College Healthcare, United Kingdom

2018154: Impact of Climate Change on Paediatric Infectious diseases

Dr. Leila Ahmed, Imperial College Healthcare, United Kingdom

2018100: Occupational Therapy Europe: The collaboration of academics, practitioners and researchers to promote and develop the delivery of occupational therapy services in Europe

Dr. Panagiotis Siaperas, European Network of Occupational Therapy in Higher Education, Greece

Short Paper

In 2004 the boards of the European Network of Occupational Therapy in Higher Education (ENOTHE) and the Council of Occupational Therapists for European Countries (COTEC) decided that more collaboration between the two organisations was needed to be able to raise a stronger voice for Occupational Therapy in Europe. ENOTHE was found in 1995 and today is a non-profit organisation, concerned with the standards and quality of professional education of Occupational Therapists across Europe. One of the primary aims is to ensure that there is a robust educational system for European Occupational Therapists, which demonstrates comparability, high quality and flexibility to respond to changes in health and societal issues, policy and practice. ENOTHE seeks to ensure that the professional education produces graduates who are fit for the future and able to work within an evolving political context. COTEC was established in 1986 with the purpose of co-ordinating the views of the National Associations of Occupational Therapy in Europe. The aim of COTEC is to enable National Associations of Occupational Therapists to work together to develop, harmonise and improve standards of professional practice through a robust educational system, as well as advance the theory of Occupational Therapy throughout Europe to best address the social and health issues affecting the citizens of Europe. Discussions about a joint congress, started in 2010 and resulted in the first joint COTEC-ENOTHE congress in Galway-Ireland in 2016 where OT-EU was officially launched.

The two organisations share key ambitions to develop strong partnerships locally, nationally and internationally to increase presence, visibility and influence in relation to the promotion of the Occupational Therapy contribution. To make this possible it was decided by the respective boards that a joint meeting should be held yearly. In addition, they have launched the development of the research section of OT-EU called Research in Occupational Therapy and Occupational Science (ROTOS). Terms of reference, a board structure and a chair- and vice chairperson were decided for ROTOS. It was agreed to start ROTOS with an initial standing committee status. A ROTOS section of the OT-EU website was developed, the domain ROTOS.eu is secured. The OT-EU coordination group recognized that the umbrella organization has to be formally established to recognised by high level organisations as the WHO-Europe and the European Commission with COTEC, ENOTHE and ROTOS under this umbrella organization.

2018102: Leadership development for undergraduate nursing students through action learning sets

Ms. Alison James, Cardiff University, United Kingdom

Short Paper

Leadership as a theme within nurse education has gained momentum recently, its inclusion in the curriculum aims to empower student nurses, increase resilience and provide confidence in challenging negative cultures. Pre-registration nurses are expected to develop a critique and theoretical analysis of evidence which underpins their practice while also developing the practical skills of leadership in preparation for the registered role. Innovative approaches to the delivery of the curriculum and enabling the preparation for practice are needed. Research demonstrates Action Learning may be an approach which is effective in this transition. Students currently experience a division of higher education settings and clinical environments with the expectation of developing abilities in critical appraisal and synthesis of evidence and practical skills within the clinical areas; it has been suggested that attrition rates and non-registration of newly qualified nurses may be the result of this contrasting approach in preparation for the role of qualified nurse. Alongside the evolving content, further consideration must be given to the methods of teaching and how students can be enabled to apply theory to practice. Leadership theory can be taught as a basis; however, the attributes of leadership require opportunities of reflection and application to practice. Thus, curriculum approaches require innovative design to integrate this in an effective and productive way, to enable students to apply knowledge to practice effectively.

2017105: Systems thinking in education: preparing for leading innovation in complex dynamic health systems

Prof. Adrian Schoo, Flinders University, Australia

Dr. Koshila Kumar, Flinders University, Australia

Short Paper

Health systems are becoming increasingly complex due to reasons such as changing populations and associated health needs, medical and technical advancement, new roles, specialisation, political agendas and available resources. Working successfully in this dynamic environment requires systems thinking, innovation, leadership and teamwork. Consequently, the challenge for programmed education and training is to prepare the health workforce through transformative learning that equips health students and professionals with the needed skills such as systems thinking, communication and leadership to bring about innovation, and optimal and sustainable outcomes for all stakeholders.

Health professionals generally work in an environment that spans across multiple sectors with many stakeholders and a diversity of interests. Issues that health professionals, particularly the clinical educators who work at the intersection of health services and education, may need to negotiate are matters such as competing health services, little or no research culture or organisational support for interprofessional learning and fieldwork placement, competing timetables, bureaucracy, challenging staff/students, high clinical workloads, geographic isolation and limited professional development and career opportunities.

To assist health professionals in understanding and preparing for their role in contemporary complex systems there is a need to recognise that education needs to go beyond the acquisition of knowledge and clinical skills alone in order to prepare them for their roles as leaders of change (Frenk 2010). Enhanced clinical education could optimise health services through best clinical/ non-clinical practice (evidence-based research, consumer/stakeholder preferences and competency). One way that health professionals/clinical educators, can be encouraged to understand and analyse the complexity within which they work, and identify opportunities to optimise impact, is by utilising a micro-meso-macro level framework.

Micro – Clinical micro systems (departmental or sub organisational level): Clinical microsystems are the small, functional, front-line units that provide health care to discrete subpopulations (Huber 2006). They are the essential building blocks of larger organizations and health systems where patients and providers, including students, meet. The challenge for health professionals is to identify their unique educational and training needs and for clinical educators to be able to integrate provisions of best practice health care and clinical education that is scaffolded by research. Adopting an improvement cycle (identify, plan, implement, evaluate etc.) can enhance outcomes of micro-systems over time.

Meso – Learning organisation (organisational level): At the meso level, the focus is on organisational context and environment. Evidence-based practice, value for money and commitment to learning are required in an increasingly dynamic and complex health care environment. Learning organisations (Senge 2000) provide the environment that allows people to learn how to work and develop together on a continual basis through shared vision, mental models, personal mastery, teamwork/learning and systems thinking (Senge 1990), and where errors/challenges are seen as learning opportunities.

Macro – Socio-political (community/government level): At the macro level, there is a focus on the broader socio-political system of health care and clinical education. Aiming for optimal results requires systems thinking beyond the departmental and organisational levels, and recognising multiple key stakeholders with their unique capacities and needs to achieve sustainable outcomes based on a win-win approach.

An integrated conceptual model: Illustrating the complexity for clinicians/educators, and assisting them in identifying possible issues and stakeholders, an integrated system thinking framework can be applied to micro, meso and macro levels that is based on a conceptual model (Figure 1). It is evidence-based and has four different spheres: (i) professional and personal; (ii) health consumers and health professionals; (iii) health services and health education; and (iv) community and government. There are tensions within each sphere and between the spheres. The notion of influence on common concerns of the stakeholders within each of the spheres is represented by bright inner circles. Influence can be enlarged by understanding mutual needs, responsibilities and opportunities within the spheres and how these may intersect. Shared vision, leadership and collaboration (i.e. aiming for win-win situations) are likely to decrease tension and competition between parties and optimise influence within and across spheres on common issues/concerns stakeholders are facing.

Figure 1. An integrated conceptual model

Translation into practice: Systems thinking, recognising stakeholders, processes and issues on micro, meso and macro levels and fostering ownership can aid optimising outcomes through innovation and leading change. Although increasingly complex when moving from micro view to a macro view on health systems, the framework can enhance understanding and achieving sustainable outcomes. Symbiotic relationships and utilising personal and team learning/skill development are important within the context of a learning organisation where challenges are seen as learning opportunities. Educators are able to teach and transfer skills needed to build effective symbiotic relationships that have a positive impact on health workforce and health systems.

Factors to be considered to enhance health workforce and associated health services include student placement, rural and remote public health challenges, acute care versus chronic disease management, workforce retention strategies (e.g., supporting career pathways through professional development and clinical supervision training), teaching best practice, team and organisational effectiveness training, and developing a positive learning environment and research culture. Evidence shows a number of benefits for organisations that have a positive research culture (Harding et al. 2016), although this is not always present in nursing and allied health (Barkowksi 2017). Health professionals and clinical educators could ensure that this research culture and best practice and people skills extend across the disciplines to benefit the organisation, staff, students, consumers and policymakers/decision-makers.

Informing policy: Research questions and findings could inform policies that support innovation around health workforce and health services enhancement. Legitimate questions include: (i) Can evidence-based policy support collaboration between communities, health services, education providers and health professionals to provide effective and sustainable health services? (ii) If so, can regional health needs and individual educational needs of health professionals be reconciled with organisational needs and community needs? (iii) What are the mechanisms underlying outcomes associated with a multi-faceted approach to social capital, social relations and organisational development (e.g., interprofessional collaborative practice, service quality/sustainability, job satisfaction)?

2018106: Seeing the bigger picture: The influence of national culture on Interprofessional Education (IPE)

Dr. Marjorie Bonello, University of Malta, Malta

Objectives

Interprofessional education (IPE), defined as "occasions when two or more professions learn with, from and about each other to improve quality of care" (CAIPE, 2002), is perceived to be one strategy to reduce professional compartmentalisation and improve collaborative practices. Worldwide impetus for IPE has been gaining momentum for the past four decades, and in many countries, it is a well-established component of health workforce education. Malta, has not caught up with this climate and as yet there are no IPE initiatives within our curricula. The assumption and expectation, from both the educational and health service providers, is that health graduates would 'naturally' learn to work together. This presentation, based on a doctoral study, explored the concept of undergraduate IPE as a possible model of practice at the Faculty of Health Sciences, University of Malta.

Method

The methodology was an instrumental qualitative case study. Data was collected in two phases and derived from eleven focus group discussions, five one-to-one interviews and documentary searches. Participants across these methods included health and academic stakeholders.

Results

Findings yielded rich insights into participants' perceptions of IPE; while they lauded the notion in principle, they identified a multiplicity of factors that would pose barriers to its enactment in practice. Some barriers might be described as symbolic while others were rooted in the practical domain of operational systems and structures. On a symbolic level, participants were particularly concerned that IPE would pose a threat to their professional identities and to the maintenance of boundaries that define the conceptual territories of the various professions. Participants also pointed to traits and behaviours they perceived as endemic in Maltese culture that would conflict with the enactment of IPE; these were especially relevant as the influence of macro cultural determinants has been largely overlooked in the interprofessional literature.

Conclusions

This presentation will focus on those particular national cultural dimensions which together with microstate sociological constructs, highlight the potential impact of culture as a tangible construct which could challenge or facilitate the development, delivery and sustainability of IPE. Although the analysis and conclusions are particular to this case study, the implications of national culture as a critical operational concept can make a wider and a significant contribution to the scholarship on IPE and other innovations in health workforce education.

2018109: Skills in conflict management and negotiation of diagnostic and therapeutic technicians

Dr. Vanda Pedrosa, Health Center, Portugal

Objectives

The study of conflict management and negotiation related with health settings has been a topic of research, particularly in CSP in modernization since 2006. The increasing cooperation between practitioners and users to perform tasks and clinical management makes skills in conflict management and negotiation crucial to the support and establishment of relations. Whether the technicians of diagnosis and therapy of an ACES consider the skills in conflict management and negotiation a critical factor to modernization of public health centre and its professional activity regarding the contact with users.

Method

Qualitative approach and method of interview.

Results

It was observed the respondents consider skills in analysis critical to the modernization of services based on logic of shared management. Training is appreciated as they didn´t obtain these skills in different stages of education. Professional group mostly single elements, confirming that having a professional colleague is positive. Being a single element and detain individuals' expertise makes the management of time and resources is crucial.

Conclusions

Conflicts arise mostly in the context of proximity to communication, interdependence of functions and resources. They tend to remain unresolved, appearing for no apparent reason. Preferred an integrative orientation and collaborative negotiation strategies. Big importance of soft skills in technical professions.

2018112: What is caring in nursing leadership – a meta-synthesis

Mrs. Rita Solbakken, Nord University, Norway

Dr. Elisabeth Bergdahl, Nord University, Norway

Dr. Gudrun Rudolfsson, Nord University, Norway

Prof. Terese Bondas, Nord University, Norway

Objectives

The aim of this study is to develop a meta-synthesis of nursing research to explore and improve our understanding of what caring is in nursing leadership. There is a risk of fragmenting the main purpose of nursing leadership- to lead nursing care and ministering the patients and their relatives when nurse leaders are exposed to multiple demands. Caring in nursing is well explored, there is however no synthesis of this knowledge from the leader's perspective.

Method

A meta-synthesis was conducted, based on the interpretative meta-ethnography by Noblit and Hare. The inclusion criteria were published qualitative studies that were peer-reviewed, using any qualitative method, focusing on caring in leadership/management in any healthcare context, with nurse leaders as informants or studies with mixed informants, where the leaders' sayings could be separated. The articles were published in scientific journals and written in English or Scandinavian languages. Six databases without year or geographical limitations, and supplemented by manual searches, were completed.

Results

Nine articles met the inclusion criteria and were appraised as high quality using CASP and QARI quality appraisal instruments. Reciprocal analysis was possible due to analogous findings in the articles. Five main themes were identified: trusting and respecting; facilitating dialogue; avoiding suffering by clinical presence; balancing limited resources; having the strength to hang-in and persist. The main themes were synthesized into a metaphor of: Caring leadership is a conscious movement between administrative and clinical rooms when ministering to the patients, which illustrates the core objectives in a caring leadership.

Conclusions

This meta-synthesis broadens our understanding of the nurse leader's perspective of developing and sustaining a clear vision of the nursing care in their nursing leadership as a caring leadership. Leaders needs to have a solid competence in nursing leadership to balance multiple demands in the organizations, otherwise that may blur their perception and their priorities.

2018113: Development teams for innovative nursing care

Prof. Terese Bondas, Nord University, Norway

Objectives

To describe the participation of nurses and their nurse leaders in self-organizing teams for developing innovative nursing care in a public Nordic health care organization.

Method

An action research design was planned in collaboration between a researcher and the participating nurse leaders and nurses in a health care organization. Seven self-organizing teams with 18 voluntary participants (nurses and nurse leaders) were established to develop care based on their own ideas. Data were created in fieldwork notes, formal and informal individual and group interviews, and diaries in the 2-year action research process. Analytic abstraction was chosen. The theoretical perspective combining Bondas' theory on nursing leadership, and Waterman Jr and Dolan on ad hoc organization, was used to create a deeper understanding.

Results

The metaphor "overcoming the jetlag of bureaucracy" is based on five themes: struggling to design the new team, investing time and self, needing research and leadership support, evolving collegial collaboration, professional growth and pride, and finally, learning brings professional security and the will to continue education.

Conclusions

Mandate, caring support and confirmation, and learning possibilities seemed to be pivotal when overcoming the jetlag of being a nurse in 24/7 care for the successful development in new self-organizing teams. Adhocracy as an organizational type includes self-organizing of the team with dedicated participants that collaborate towards a meaningful and effective development of nursing care.

2018114: Strengthening Interprofessional Collaboration through Joint Learning Seminars (SiHaKo)

Mrs. Heike Penner, University Hospital of Munich, Germany

Mrs. Rita Hofheinz, University Hospital of Munich, Germany

Objectives

The overall objective of the project is to improve collaborative practice and quality of care. By learning how to use joint communication or quality tools (such as validated scoring systems, e.g., CAM-ICU and S-B-A-R;) during simulated case discussions, the participants develop an awareness of their respective perspectives, their similarities and differences. The intensive project experience aims to facilitate trust and create a team that continuously reflects on and optimises its actions and communication processes and is able to design its workflows effectively and efficiently.

Method

In 2015, the pilot project “SiHaKo“ was launched by the Department of Staff Development & Continuing Education at the University Hospital of Munich with support from the Robert Bosch Foundation. As a result of demographic changes and thus increasingly complex patient care, the authors offer the participants a new way of learning together. The intensive care unit and the operating room especially are considered high-risk, error-prone areas and, for the patients’ safety, teams working in these areas need to communicate clearly and effectively. The interprofessional Pilot project is directed at medical residents and nurses participating in the post-graduate course in intensive care and anaesthesia. Together, residents and nurses examine, discuss and reflect on the treatment strategy of chronically ill patients with multiple diseases. This course includes 68 education units, divided into an orientation and development phase and consisting of, among others, communication seminars, need – based specialists subjects, and simulated interprofessional case discussions. The students newly experience themselves in the so-called “protected - classroom context”, perceive others and their roles, learn to solve problems together and thus overcome their limitations and fears within the team. The evaluation of the effectiveness of the project is based on the four-level evaluation model of Kirkpatrick & Kirkpatrick (2013).

Results

Within the first project phase of our "SiHaKo" Pilot Project (2015 - 2018), we conducted observation studies during simulated interprofessional (IP) case discussions. The subject of investigation was the interactions between the two professional groups (nurses/physicians) and the professional perspectives of the students. From the perspective of the observer group, it was striking how often nurses neglected their own perspectives or roles in the IP case discussions (nurses immediately – and automatically – adopted the doctors’ assessment/perspective). By ignoring their own role and competencies, nurses failed to present and/or defend their professional perspective and diagnoses; as a result, important information is not discussed. Another interesting aspect was that interprofessional discussions were rather rare. The students, doctors and nurses working in intensive care teams had their case discussions in a rather traditional style and seemed to feel more comfortable discussing within their own professional groups. The results of the first pre-tests show that interprofessional ward rounds as well as evidenced - based up-to-date guidelines have not yet been fully introduced into health care practice.

Conclusions

In the first phase of our funding project, we were able to conclude that medical and nursing practitioners ask for interprofessional education and training. Interprofessional communication and collaboration in clinical practice does not take place on its own. The need for an early start and lifelong learning in the area of interprofessional education and collaboration in health care is also called for by the WHO in its “Framework for Action on Interprofessional Education and Collaborative Practice” 2010. We were able to experience and observe IPE in several training centres in the Stockholm area. While we can learn a lot from the Swedish model, it will be necessary to adapt it to the German context. Our project is one of a few IPE projects in Germany. The health care system is undergoing constant reforms and many projects have never gone beyond pilot project level. The Swedish IPE model, however, gives us hope that our vision will become a reality one day. How to design healthcare education as to meet the needs of the future remains a crucial question. Whether IPE and teamwork is one answer to this question will have to be the subject of further studies.

2018115: Coaching approaches among medical students, health professionals and individuals in their educational environment

Prof. Lidia Georgieva, Medical University Sofia, Bulgaria

Mrs. Kremena Lazarova, Independent Expert on Medical Law and Education, Bulgaria

Prof. Marin Georgiev, Medical University Sofia, Bulgaria

Objectives

In the development and implementation of coaching approaches among young people there is a European and national (in Bulgaria) experience over the last few years. The focus of this project is on medical students, health professionals and individuals in their educational environment. The aim of the project is to perform a scientific research on the effectiveness and benefits of implementing coaching approaches among medical students, health professionals and individuals from their educational environment. Dissemination and popularization of those approaches.

Method

The methods to be used are proven to be effective on the basis of years of international and personal experience and include:

- Familiarization with the subject through practical experience of real case studies in the form of role-playing games;
- Learning through experience;
- Transmitting the information into a dialog, not a monologue.

Some of the activities envisaged include:

- Collecting scientific information on the effectiveness and benefits of applying coaching approaches.
- Analyse and present the results of the study in the form of scientific papers, conference papers, and presentations on the contribution of coaching in learning.
- Conducting information and demonstration sessions to promote coaching approaches up to 2 hours.
- Organize one-day training sessions to train trainers. A one-day training module will be offered the opportunity to continuously apply coaching approaches when presenting at a pre-developed modules of patient rights programs. This practice will aim at achieving a double effect, on the one hand self-improvement of the trainers and, on the other hand, further dissemination of coaching methods and proving their effectiveness in practice.

Results

Expected results:

1. Conducted scientific study on 500 people on the effectiveness and benefits of coaching in education to serve for their science-based dissemination.

2. Provide reflection, creativity and inspiration to up to 1000 informed people on coaching approaches to learning.

3. Trained up to 500 people from the target groups from Sofia - Sofia, Sofia, Plovdiv, Varna, etc., who have access to more knowledge, have the opportunity to take more responsibility and cooperate more to achieve better results.

Conclusions

The European Commission SALTO-YOUTH project with the joint participation of the National Agencies of the Youth in Action Program of seven European countries has developed a European strategy for coaching approaches among young people. The tools, publications and training activities that are oriented towards youth initiatives and projects have proven to be very efficient. This leads us to expect the same effects of improved communication and leadership among medical students, healthcare professionals and individuals in their educational environment.

2018116: Selecting the 'right' candidates for health professions education: why is it so difficult?

Prof. Gilles Dussault, Instituto de Higiene e Medicina Tropical, Portugal

Objectives

There is no shortage of advocacy for a more community-oriented, people and needs-centred health workforce and for education and learning competence-based programs and activities. The response is most often to focus on how education processes can produce workers with those desirable traits, which is certainly important. Less attention has been given to selecting candidates who are the most likely to acquire these qualities and competencies and to use them as providers of health services when they enter the labour market. The objective of the presentation is to identify barriers to changing selection criteria from relying mostly, if not only, on school performance to ones adapted to the needs of services. It will also discuss some potential facilitators of change and related policy implications.

Method

This presentation will draw on the results of studies of the education of midwives in 6 French-speaking Sub-Saharan African countries (25 schools - 17 public, 8 private - in Benin, Congo, Ivory Coast, Mali, Mauritania and Senegal), of expectations of medical students in four Portuguese-speaking African countries and of nursing and medical education in Morocco.

Results

Barriers include: inherited traditions (priority to academic performance), the objective to meet recognition requirements of ex-colonial country (mainly in medicine), resistance of students and their parents (interviews or psychological tests perceived as an open door to arbitrariness, even to corruption, and the absence of capacity (few full-time staff, dual employment, absence of role models, weak professional councils. Potential facilitators include: having the "right educators", stronger, more proactive professional councils, partnerships providing models, policies informed by research, more specific international standards.

Conclusions

Policy-makers and educators must first ask "What does selecting the "right" candidates for health professions studies mean?". The answer may vary from one occupational group to another and depending on the objective of recruitment ((e.g. to attract students to the health sector, to underserved areas or to priority/understaffed specialties (geriatrics, mental health, primary care, rehabilitation, ...) or whether the institution is public or private. Criteria may vary and combine differently: origin, values, social skills, motivation, willingness to pay. Researchers need to assess the contribution of more effective selection to developing a performing health workforce and to make sure that the evidence reaches out to policy-makers and better informs their decisions.

2018117: Changes in medical education in Bulgaria for the 21st century

Dr. Nikolai Hristov, Medical University Sofia, Bulgaria

Dr. Vili Slavchev Zahariev, Medical University Sofia, Bulgaria

Dr. Peshka Angelova Pesheva, Medical University Sofia, Bulgaria

Dr. Lidia Georgieva, Medical University Sofia, Bulgaria

Objectives

Our goal was to assess the important changes in medical education in Bulgaria, that occurred in the post-communist period along the following lines:

What necessitated them? What changed in the education curriculum of human medicine, dental medicine and nursing? What were the new medical professions to appear and how were they backed by the universities offering medical teaching? How well do the stipulated educational goals translate into actual medical practice in the country? What is the background behind the introduction of public health faculties and how well does their focus on leadership training for health professionals translate into health care management practice? What are the implications of the influx of foreign medical students to Bulgarian medical universities?

Method

We studied a variety of documents in Bulgarian: public policy documents, medical schools' curriculums and programmes, faculties reports, and combined these findings with data from the QUALICOPC study on primary care in Bulgaria, and our own experience as medical educators.

Results

Like the rest of Eastern Europe Bulgaria followed suit to contemporary changes in medical education. Physicians education focused on the needs of family medicine instead of clinical specialties, introducing some leadership, communication, and inter-cultural competences as well. Dental medicine and nursing education introduced public health and leadership competences. Dedicated public health faculties appeared and attracted a lot of students. The large influx of foreign students in medicine and dental medicine inevitably reflected on the organisational culture of Bulgarian universities. Nevertheless, we found that important gaps exist between the set educational goals and their translation into medical practice. The newly appeared general practitioner took the central role in Bulgarian health care but, as of yet, seems inadequately trained for her role. Results from the QUALICOPC study demonstrated severe deficiencies in the communication skills of general practitioners in Bulgaria. The pendulum in nursing education seems to have swung to unnecessarily heavy focus on leadership skills at the expense of professional training.

Conclusions

The opening of Bulgarian society to all-European developments lead to revolutionary, rather than evolutionary changes in medical education in Bulgaria. These changes were in line with developments in the whole region of Eastern Europe. Some changes were rushed, imitative in nature, and do not reflect on the actual needs of Bulgarian society. Concerning medical education, it would perhaps take a longer period of time for a new educational culture to take roots.

2018118: Clinical leadership: how can we define and recognize leaders in bedside nursing care?

Mrs. Sabrina Nachtergaele, Artevelde University College, Belgium

Mrs. Nele De Roo, Artevelde University College, Belgium

Objectives

Nurses have a considerable role in coordinating care in hospitals. This is important to plan, organize and implement the interdisciplinary care when treating patients and to independently guarantee and evaluate the quality of nursing care. Therefore every nurse has to possess leadership qualities and competences. This implies that leadership is not only a task of nurses in a formal leadership or management position, bedside nurses also need these leadership qualities. Although every nurse has to possess these qualities, different terms, for example clinical leadership or staff nursing leadership, are being used randomly when discussing leadership qualities in bedside nurses. The aim of this study was therefore to define the meaning of the concept 'clinical leadership' for nurses and to understand how clinical leaders can be recognized within a nursing team.

Method

To get an insight in the concept of clinical leadership there was a primary literature research conducted. To understand the meaning of the concept 'clinical leadership', in-depth interviews were conducted with experts in leadership and nursing, for example a Human Resource Manager with a focus on leadership from a large hospital in Belgium was interviewed. Additionally three semi-structured focus group interviews were organized. The participants included bedside nurses, senior nurses and managers, all working in general hospitals in Belgium. The expert interviews and focus group interviews were based upon open ended questions concerning participants' knowledge about clinical leadership, such as: how would you describe the concept of clinical leadership? Or how is clinical leadership being applied in bedside care at your hospital? Analysis was based upon a qualitative content analysis of the transcribed expert and focus group interviews.

Results

The literature review showed that the concept of clinical leadership involves bedside nurses who deliver daily bedside care, who are able to act as a role model and who influence, motivate and inspire others with their values and beliefs to improve patient care. An important emphasis lies in the fact that these nurses have no formal authority. This was further confirmed in the expert and focus group interviews, where characteristics as creativity, clinical expertise, flexibility, strong communication skills and a vision towards the future were linked to this concept. The literature review also showed that there is a positive link between the presence of nurses with leadership qualities in bedside nursing care and the quality of care that is provided.

Not every bedside nurse possesses these skills at graduation, but they can be developed throughout the career of an individual nurse. For example in the focus group interviews working towards clinical leadership was described as staying ambitious in your own role as bedside nurse.

The expert and focus group interviews also focused on actions to facilitate clinical leadership. Senior nurses try to involve bedside nurses in ward projects to facilitate them to grow towards clinical

leadership. For example by making them a reference nurse on a specific topic that is important for the ward with the intention of improving quality of nursing care. They also try to create a positive feedback culture on the ward. However bedside nurses working in a hospital do not recognize themselves as a clinical leader. They understand the characteristics and they can identify colleagues who possess them, but they do not acknowledge them within themselves. Initiatives of managers or senior nurses to help them grow are not being used optimally to help them reach their full potential as a clinical leader.

Conclusions

This research shows that there is a need to understand the concept of clinical leadership. The presence of clinical leaders in a hospital at the bedside care can be positively linked with the quality of care that is provided at the ward. Therefore it is not only necessary to understand the meaning of the concept, but also to understand how clinical leaders can be recognized and facilitated. Clinical leaders have clinical expertise, use effective communication, are flexible, are a role model, take responsibility and have a vision towards the future. Nurses should be trained to develop these characteristics.

There is a need to understand and further explore the discrepancy between nurses who do not recognize themselves as a clinical leader and the actions of senior nurses to help nurses become clinical leaders.

2018121: Is it necessary to design and implement an international program for best practices of PHC?

Dr. Hassan Khani Iurigh, Ghaemshahr Health Center, Mazandaran University of Medical Sciences, Iran

Mrs. Ameneh Ghorbani, Ghaemshahr Health Center, Mazandaran University of Medical Sciences, Iran

Dr. Mohammad Reza Majdi, Mashhad University of Medical Sciences, Iran

Prof. Ali Reza Mesdaghinia, Tehran University of Medical Sciences, Iran

Prof. Fatemeh Rakhshani, Shahid Beheshty University of Medical Sciences, Iran

Objectives

The primary health care system is one of the most important historical events in the development of healthcare supply and production, the international community's decision to adopt an early-stage health care approach to achieve multiple goals, including equity for community access to primary health services. Best Practices of Primary Health Care are an area that is expanding which center on improving processes and methods of conducting performance in Health System. Aim of this study is Practice Report: Design and Performance of Iranian National Program for Best Practices of Primary Health Care.

Method

Iranian national program for best practice of primary health care with collect, record and report of health work forces and health volunteers' best practice in different areas of primary health care system at the national level. This Program has 5 main parts and Activated councils of health system research in different medical universities and all health networks in all cities. We Design and Performance this program in North Khorasan State as a pilot program.

Results

This program provides a deep understanding of the applied health concept, approaches tools and method for all health activists that comes with equitable applied knowledge translation and interacts effectively with audience in the country which is one of major parts of the national scientific mission map.

Conclusions

Therefore illustration of the health status, designing and implementing appropriate interventions in order to improve it considered with the conditions and resources available and the assessment and evaluation of interventions is the mission of health.

2018122: Professional Experience with Health and Social Care Organisations as an Innovation and Enhancement in the Up-skilling of future generations of global health leaders

Mr. Adam Layland, Coventry University, United Kingdom

Mr. Rob Wilson, Coventry University, United Kingdom

Mrs. Amanda Royston, Coventry University, United Kingdom

Short Paper

Introduction

How do clinical professionals gain leadership and management experience without being in such positions? An innovative approach has been developed by academics at Coventry University in partnership with a range of relevant health and social care organisations, providing students on Master's programmes with enhanced learning opportunities to observe, practice and develop effective leadership and managerial skills in a real-life work setting. The use of professional practice is longstanding and a well established approach in the education of clinical professionals, including medics, nurses and other allied health professionals developing the necessary skills for practice. As part of the professional experience, internship students are required to reflect on their learning and development against the domains of the Healthcare Leadership Model (NHS Leadership Academy 2013). The six-month internship supports the development of the skills and attributes required of a modern healthcare leader; Communication (Verbal and Nonverbal), Team working, Problem Solving, Negotiating, Initiative and Enterprise (Commercial Awareness), Planning and Organising, Self-Management and Self-Motivation, Flexibility, Self-Awareness, and Decision Making. In addition, these students are also encouraged to explore real-life healthcare management issues as the focus for their final project, completed on their return to university.

We hope to share our innovation at the European Conference on Health Workforce Education and Research. We propose to present the implementation of the Professional Experience for the first cohort of postgraduate healthcare leadership students; explain the pedagogy and assessments used; share the analysis of the evaluation, strengths and challenges and present case studies on its effectiveness.

Pedagogy and Assessments

Employers are seeking graduates that have experience of working, rather than being entirely academically astute. The professional experience route provides a variety of pedagogy for students who learn in different ways. Kolb's Experiential Learning (1984) is the most appropriate learning theory that identifies key stages for the students learning. The student will gain concrete experiences by witnessing how a leader operates in the workplace, learning and skill development is promoted using reflective theory that suits them or the situation. The reflection allows students to conceptualise the situation and direct them to critique leadership and management theory for the situation they witness. Once comfortable students are then provided with opportunities to practice the next time a situation arises. This completes the first cycle of learning identified by Kolb (1984) before it recommences when the student practices a skill.

It is widely recognised that individuals learn differently, therefore the professional experience allows students to identify their own requirements through an initial learning agreement where students clearly state their own methods to achieve their goals. By doing this, students have identified the most appropriate pedagogy for them and this is supported both academically and professionally in the workplace through supervision with a work-based mentor. Five workshops also support students to develop their confidence and initiate the commencement of the skills they will require whilst on professional experience. These workshops are practically based and draw on students' knowledge from previous experiences, whilst creating a link between academic studies and the internship.

There are a range of postgraduate programmes that incorporate professional experience and for this reason the assessments are tailored, allowing students the ability to apply subject-specific knowledge through a portfolio, which the student can retain for their ongoing professional development, after completing the course. Students are required to update their portfolio bi-weekly, providing opportunities for students to reflect on their experiences and what they have learned, identifying learning goals in an action plan that can be completed over the following two weeks. This has been found to focus the student on their professional experience and allows their mentors the opportunity to review and advise appropriately.

Using simulation to develop confidence

Sometimes situations may not be experienced during a professional experience that are important for the success of future healthcare leaders. We have innovated to provide simulated experiences, within a realistic setting to provide real-life situations to students who either require something specific or to assist in the development of a skill. Set inside a new £60m building we have fully functioning wards, intensive care units, consultation rooms, an operating theatre and community houses; where students can feel and learn in a real environment. We offer the students the opportunity to practice skills in a safe environment either before their professional experience, during or afterwards. This is designed to improve their confidence of dealing with a situation whereby they require strong leadership and management skills. Each simulation can be recorded and provided to the student for their ongoing development and reflections.

Evaluation

The first cohort of students started their programmes in September 2016, undertaking the 6-month professional experience from May 2017, evaluation is currently taking place. Initial feedback has so far been positive from the students and employers; this is demonstrated in the offer of future internships from the employers. The students' reflections have demonstrated obvious growth of leadership skills and understanding of working in a professional environment.

In May the results of the completed evaluation for this first cohort of students and the employers will be presented at the conference.

References

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NHS Leadership Academy (2013) Healthcare Leadership Model. Leeds: NHS Leadership Academy.

2018123: Gender Barriers in Health Workforce Sustainability

Ms. Valia Kalaitzi, Maastricht University, Netherlands

Ms. Stavroula Kalaitzi, Maastricht University, Netherlands

Prof. Katarzyna Czabanowska, Maastricht University, Netherlands

Prof. Suzanne Babich, Indiana University RM Fairbanks School of Public Health, United States

Dr. Elena Petelos, Maastricht University, Netherlands

Dr. Natasha Azzopardi-Muscat, University of Malta, Malta

Short Paper

Vulnerabilities in health systems, complicated by extant human resources models and mistrust among health stakeholders, underscore the need for competent and inclusive healthcare leadership. Gender inequalities such as unequal opportunities in education, recruitment and career advancement, stereotypes and work/life imbalance, impede development of such comprehensive leadership. The workshop aims to show how the lack of gender equality, diversity and leadership adversely impact upon health and development outcomes; how healthcare workforce diversity could equalize opportunities and overcome barriers to achieve efficient governance and sustainability responsive to pressing needs of patients, the health workforce and systems.

The workshop will be organized as a round table and will include one deck presentation (20 minutes) and two 10 minutes presentations: 1) Latest research on barriers to gender equality in health workforce 2) Knowledge and policy gaps in relation to global health workforce, the evidence for equality and diversity towards improved health and development outcomes; Health workforce diversity and sustainability globally: a generational perspective.

The workshop will be interactive, allowing participants to take part in a vigorous debate about the presented key issues. Each session starts with a short keynote to provide an overview (10 minutes) followed by invited rapid communications (5 minutes each). The Chair will facilitate dialogue by introducing additional pointers/Qs directed to members of the panel/RT showcasing additional research findings or experience and closes with a facilitated discussion.

Workshop learning objectives:

· Map gender equality in healthcare

· Understand why gender diversity benefits healthcare sustainability

· Describe potential gaps in strategies and policies addressing diversity and inclusion in training and recruitment of health workforce; focus on lack of robust evidence

· Focus on formative part of education integrated in the curriculum, sufficient understanding and assessment of the impact of these gaps and lack of evidence/relevant policy and interventions across actual health and development, incl. compromised sustainability

· Identify potential gaps in developing health workforce inclusive leadership

· Discuss values and needs of new generations of health workforce globally in addressing leadership and gender equality.

2018125: Driving forces for migration of Bulgarian doctors

Dr. Lidia Georgieva, Medical University Sofia, Bulgaria

Mr. Boyan Zahariev, Medical University Sofia, Bulgaria

Dr. Nikolai Hristov, Medical University Sofia, Bulgaria

Prof. Marin Georgiev, Medical University Sofia, Bulgaria

Mrs. Kremena Lazarova, Independent Expert on Medical Law and Education, Bulgaria

Objectives

The process of migration of healthcare workers in European context, where health systems increasingly interact, is steadily growing. The migration raises questions regarding its contribution to critical shortages of health workers and attendant health equity impacts in the countries from Central and Eastern Europe.

Method

This paper presents the results from three empirical studies and data provided by Bulgarian Medical Association. The aim is to explore the prevalence of migration intentions and their driving factors among Bulgarian medical doctors and students in medicine.

Results

There is a sharp increase in the number of Bulgarian doctors that required Good Standing Certificates with intention to work abroad recently. In medical establishments where the staff declares that the size of the salaries is an issue, the likelihood of medical staff planning to leave within 2 years increases. The duration of professional experience has a stronger impact than the age on the attrition rate. The reasons for reluctance of medical students and speciality “Physical therapist” to work in Bulgaria are: low payment (in almost 80%), bad healthcare system and working conditions, bad attitudes towards healthcare workers.

Conclusions

The brain drain in the health sector is not a favourable regulated process. The creation of a regulatory framework does not decline the social and economic differences between EU countries. Whether it is possible to regulate cross-border health worker flows for improving healthy equity remains an open question.

2018126: The experiences of female Sudanese doctors and medical students in career decision-making

Dr. Nabtta Bashir Hamad Mohamed, University of Dundee, Sudan

Dr. Susie Schofield, University of Dundee, United Kingdom

Objectives

The intake of female students into Sudanese medical schools has been steadily increasing, reaching up to 64 percent in 2008. Females constitute 51% of the current health-workforce in Sudan with figures expected to increase further. In response to recent debates and prevalent concerns around a rapidly feminizing medical field. This research explores career-decision-making processes and career construction of Sudanese women doctors. It identifies factors shaping their specialty choices and advocates how health planners and medical educators can better respond to their rising numbers.

Method

This research follows a Qualitative Research phenomenological approach designed as a case study. In-depth phone interviews and face to face focus group discussions were conducted with 17 Sudanese females at different levels in their Medical training using story-telling as means of exploration. Focus group discussions and In-depth interviews were recorded, translated and transcribed, then analysed using thematic framework analysis.

Results

When deciding about specialty choices, Sudanese women doctors first reduced the number of alternatives they considered to a set of alternatives deserving further attention before determining their choice. Few were interested in joining Surgery, the majority being more attracted to Paediatrics, Obstetrics & Gynaecology and Internal Medicine. A variety of influencing factors on career decision-making were identified. Highly influencing factors included intrinsic factors such as interest, enjoyment, perceived good outcomes, emotional impact as well as interacting with patients, and extrinsic factors such as the presence of emergency care, availability of jobs, financial security as well as the availability of role models regardless of the role model's gender. With interest, perceived outcomes and emotional impact ranked highest. Most of the qualified participants showed reasonable certainty when choosing their careers. This was not the case for the students. All qualified participants were satisfied with their specialty of choice and showed resilience in overcoming workplace challenges, and women leaders displayed positive attitudes towards the feminizing medical field.

Conclusions

Initiatives aimed at providing flexible training opportunities, removing obstacles and unfavourable career structures hampering vocational progress of Sudanese women doctors such as the unavailability of part-time trainings, absence of role models and non-satisfactory maternity leaves are essential for responding to changing workforce trends. Introducing financially awarding job postings and training may be promising for attracting women to surgery and other underrepresented specialties. Applying proposed initiatives may eventually allow women to reach their full potential and prepare them for holding high leadership positions, and thereby create a positive outlook for the feminizing medical field.

2018127: International analysis of dentist needs in terms of interpersonal communication with patients

Mrs. Inga Kolomyjska, KIKO Educational Solutions Sp. zo. o., Poland

Mr. Ioannis Athanasopoulos, Synolic Ltd, Greece

Mr. Peter Schultz, ÖTZ-NLP&NLPt, Austria

Dr. Catalin Zaharia, Mind Master, Romania

Mrs. Mihaela Zaharia, Mind Master, Romania

Mr. Ron Windauer, ÖTZ-NLP&NLPt, Austria

Dr. Alexnadra Efthimiadou, Greece

Short Paper

International comparative analysis of dentist needs in terms of interpersonal communication with patient - the outcomes of the survey on the needs of dentists in terms of interpersonal communication with a patient, conducted in four countries taking part in the project COMDENT: Austria, Greece, Poland and Romania.

The target of the survey was to deepen the knowledge on the dentists' needs in the field of interpersonal communication, patient management, working with patient with fear of medical intervention, doctor's self-management in stress situations, building relationship with the patient. Based on the outcomes of this analysis the training programme and methodology – curriculum for medical dentists in the subject of communication with patient with special emphasis on the work with fear is being prepared, which is the main target of the COMDENT Project.

The international analysis was a part of the international project co-funded by the European Union titled "Developing communication competences among medical doctors with specialization in dentistry".

2018128: Improving Graduate Employability and Career Counselling in Medical Students

Miss Chevonne Brady, University of Dundee, United Kingdom

Dr. Mark Zarb, Robert Gordon University, United Kingdom

Objectives

In the United Kingdom, up to 50% of young doctors do not proceed directly into speciality training. This rapid change in the direction of our profession is placing increasing demands on an already stretched NHS. In the UK, medical school teaching is understandably focused on the clinical expertise which students will need in their jobs as junior doctors. With the shift in career trajectories of these students it is important that medical education evolves to accommodate this. The NHS has recognized this and has developed a fellowship for entrepreneurs. Medical schools in the UK do not yet appear to have recognised this need and these skills are not generally included within the UK medical undergraduate curriculum.

Method

A literature review on the topics of entrepreneurship and management in medical education was conducted using PubMed and the terms “medical”, “education” “entrepreneurship” and “medical” “education” “management”. Based on this, final year medical students at Dundee University have been surveyed regarding their previous exposure to entrepreneurship and management, as well as their interest in their inclusion in the curriculum.

Results

A PubMed search using the terms “medical”, “education” and “entrepreneur” yielded 10 results. Upon review of these abstracts, 2 were found to be relevant to the project. A PubMed search using the terms “medical”, “education” and “manager” yielded 1204 results. Upon review of these abstracts, 19 were found to be relevant. These articles were then reviewed in full and 18 were found to be relevant to medical education (either undergraduate or junior training years). A 10-point survey has been distributed to final year medical students. This survey has so far been completed by 45 final year medicals students and has yielded some very interesting results. Of note, no medical student reported having any teaching on enterprise or entrepreneurship during their undergraduate education. One student reported having had formal teaching on management skills. 48.9% of final year students reported that they were considering a career outside of clinical medicine, fitting with the findings of the Foundation Programme Career Destination Report. 44.4% of students felt that these teaching sessions should be optional whereas 33.3% of students felt they should be incorporated between the penultimate and final years of medical school.

Conclusions

A thorough literature search has demonstrated a gap in the literature with regards to changing medical education to prepare students for new, non-traditional career paths. Whilst entrepreneurship is now accepted as an important skill for doctors to be exposed to, this is clearly not filtering through to medical education at the undergraduate level. Similarly, there are also few journal articles exploring the role of managerial skills in medical education. With the help of student feedback, local business owners are now aiding in the process of setting-up a pilot programme in entrepreneurship and management for final year medical students.

2018132: Shaping the future of Clinical Research: Advanced Leadership Programme

Ms. Jess Radcliffe, NIHR, United Kingdom

Ms. Emma Lowe, Department of Health and Social Care, United Kingdom

Short Paper

The NIHR Clinical Research Network (CRN) is a managed network charged with providing research delivery support for NHS commissioned services. It has grown its activity rapidly and now funds over ten thousand research professionals and clinical research practitioners. The Network currently recruits over 600k patients annually into clinical studies and supports a national portfolio of research from a wide variety of disciplines. It is also part of the emergency preparedness infrastructure of the Department of Health in order to rapidly respond to global health challenges. This is a unique leadership context and there is a clear requirement for future clinical research delivery leaders from across the professions to be both confident and competent to lead across the NIHR CRN.

To date, much leadership development has been focused on individuals and personal skill development. Whilst this is clearly an important element, equally important to our future are our strong peer networks, which will enable cross boundary working and strong systems understanding. As an organisation, we are working to improve both agility and mastery of good leadership and management to ensure we are equipped to face the challenges and opportunities ahead.

To this end, the NIHR Advanced Leadership Programme seeks to achieve a cohort of national leaders with the clinical research delivery workforce who:

- Are able to lead confidently across networks and have a deep understanding of the research delivery system they are operating in;
- Are effective boundary spanning leaders and able to develop this competence in others;
- Are able to demonstrate credibility, confidence and resilience, and the ability to lead in times of rapid change;
- Understand the potential of the digital technologies to transform clinical research delivery in everyday healthcare settings;
- Are able to describe the impact and benefits of research for the wider health system.

Now in its second year, we are seeing tangible and subtle changes in the behaviour of the NIHR Advanced Leadership Programme participants, and the teams and networks in which they are working. More collaborative, questioning and inclusive approaches are a hallmark, with many of our first year's participants now actively driving and leading change in local and national systems. The ripple effects of this have been wide ranging and sometimes uncomfortable, with a clear gap between the emerging leadership approach of the participants and more senior leaders across the organisation. A demand for access to similar programmes from various communities across the CRN has become increasingly strong.

This programme is rooted in the question "What is Network Leadership?" and aims to support participants in finding their own answer. This is done through curated content, delivered across multiple platforms and through varied delivery and learning styles. Content is deliberately shaped

around a leadership mindset, rather than specific tools - which can be limiting as much as they are useful - and includes:

· Boundary Spanning Leadership & Developing Personal and System Resilience

· The Future NHS and the Global Health System & Reimagining Landscapes: being a Digital Native

· Innovation and Change Leadership; articulating a vision for change

This knowledge is then embedded and further developed through an applied leadership challenge. The focus of the leadership challenge is determined by the individual participant, based on the conclusions they draw from the structured learning as well as their own circumstances and learning needs. Participants work in small learning sets to develop their own leadership challenge and provide peer support to other participants.

Although positive outcomes were achieved in the first year, we have learned many lessons around the design of the programme and have made significant enhancements to the second year offering. The programme now has a truly blended design taking place across 11 months. This is comprised of weekly personal learning activities, regular interactive online discussions, three residential modules, several one-day events, and an applied leadership challenge supported by active learning sets and a strong community both on and offline.

We have invested significant time and financial resources in the design and delivery of the programme, and this has proved to be a significant development opportunity for our own team as well as the programme participants. It has challenged us to be innovative, creative and bold with our design approach, and to model the leadership approach we are aiming to develop in others.

In this presentation, you will learn about our design and delivery approach, how it has felt for participants to take part in the programme and the impact the programme has had on the research delivery system.

2018134: The Significance of a Sensory Garden in the Formation of “The Room of Closeness”

Ms. Inger-Lise Magnussen, Nord University, Norway

Prof. Terese Bondas, Nord University, Norway

Mrs. Johanne Alteren, Nord University, Norway

Objectives

Background: The Sensory Garden (SG) is in this study defined as a carefully planned, fenced and cultivated outdoor space used in caring for persons suffering from dementia and is a national health policy priority in Norway. The goal is to reduce the symptoms, provide the opportunity to cope, and to obtain contact with nature in a safe environment. Nature in a sensory garden may create the possibility of a patient–nurse relationship in caring for dementia patients in nursing homes.

The purpose of this study was to explore the relationship, describe it and moreover to make its meaning visible.

Method

The study forms part of a larger action research project. Through interventions using an appreciative approach, data was collected from fourteen participants. Using thematic analysis, based on Braun & Clarke, two main themes were developed: (1) The formation of “the room of closeness” and (2) “the room of closeness” – a significant relationship in dementia care.

Results

The findings show the development of new knowledge about factors that promote or inhibit the formation of “the room of closeness”, and its potential for changing the care.

Conclusions

In the presentation, I will also discuss the importance to include the possibilities of Nature in the education of the health care workforce.

2018135: Developing A Leadership Attributes Development Tool for Pharmacists

Mrs. Nadia Bukhari, UCL London, United Kingdom

Prof. Ian Bates, UCL London, United Kingdom

Short Paper

Background

It is widely accepted how crucial it is to understand the development of leadership attributes of practitioners, alongside the essential infrastructure and support mechanisms for the development of leadership across all stages of the pharmacy workforce. The development of appropriate education and training strategies and plans targeted to developing these leadership attributes will then result in a workforce better able to deliver the evolving health service needs.

This aligns with the World Health Organization statement "No health without a health workforce" (2013) which acknowledges that the delivery of better health requires a workforce that constantly develops and grows. Leadership and the development and impact of leadership is under researched within the pharmacy domain. However, parallels can be drawn from the findings from health care and translated into pharmacy, being a profession within health care.

Anecdotally, leadership training and development can maximize productivity and shape a positive culture. To achieve this, we must understand leadership in more detail.

The International Pharmaceutical Federation (FiP) launched the global Pharmaceutical Workforce Development Goals (PWDGs) in 2016. Currently there are 13 WDGs that have been grouped into three clusters: academy (focus on the schools, universities and education providers), professional development (focus on the pharmaceutical workforce); and systems (focus on policy development, governmental strategy and planning, and monitoring systems).

Leadership comes under the cluster of professional development (goal 6). Leadership development in health care has been identified as an important developmental skill globally; one that needs to be development within the workforce.

Aim & Objectives

The aim of the study is to develop a leadership attributes development tool for pharmacists (LADT). The objectives for the study are as follows:

1. To investigate how pharmacists, perceive their own leadership attributes

2. To conduct a review of the delivery of current leadership attribute development for pharmacists

3. To evaluate how leadership outcomes are recognised amongst the professional body

4. To evaluate the leadership attribute development tool for pharmacists.

Study Design

The design of the study is outlined in fig.1. Both quantitative (questionnaires) and qualitative (semi-structured interviews) methods will be used to investigate leadership concepts and perceptions within the pharmacy profession. The results from both the methods used will inform the development of the LADT.

Interim Conclusion

Leadership and the development and impact of leadership is under researched in the UK; in particular pharmacy leadership. This trend has also been explored globally via the literature review.

Leadership has become a focus for healthcare provision in the UK post Francis. The Royal Pharmaceutical Society launched the pharmacy adaptation of the NHS Leadership Development Framework (2015), reinforcing the fact that this is an optimum time to conduct this evaluation of leadership development within pharmacy.

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2018136: Leadership in Pharmacy: A Global Overview

Mrs. Nadia Bukhari, UCL London, United Kingdom

Short Paper

It is vital to understand the development of leadership attributes of practitioners, alongside the essential infrastructure and support mechanisms for the development of leadership across all stages of the pharmacy workforce. The development of appropriate education and training strategies and plans targeted to developing these attributes will then result in a capable and competent workforce, able to better deliver the evolving health service.

This aligns with the WHO statement "No health without a health workforce" (2013) which acknowledges that the delivery of better health requires a workforce that constantly develops and grows. Leadership and the development and impact of leadership is under researched within the pharmacy domain. However, parallels can be drawn from the findings from health care and translated into pharmacy, being a profession within health care. Anecdotally, leadership training and development can maximize productivity and shape a positive culture. To achieve this, we must understand leadership in more detail.

The International Pharmaceutical federation (FiP) launched the global Pharmaceutical Workforce Development Goals (PWDGs) in 2016. Currently there are 13 WDGs that have been grouped into three clusters: academy (focus on the schools, universities and education providers), professional development (focus on the pharmaceutical workforce); and systems (focus on policy development, governmental strategy and planning, and monitoring systems).

Leadership comes under the cluster of professional development (goal 6). Leadership development in health care has been identified as an important developmental skill globally; one that needs to be development within the workforce.

Why is leadership development important?

Leadership development is defined as expanding the collective capacity of organisational members to engage effectively in leadership roles and process (McCauley et al., 1998). The concepts of leader development and leadership development are often confused to mean the same thing, when in fact they are two different concepts altogether. Leader development involves the development of leadership skills and attributes of individuals whereas leadership development as a concept involves a broader vision involving the organisation.

A likely explanation for the interchangeability of the terms could be due to the fact that most leadership studies examined leadership as an individual phenomenon with a focus on behaviours and skills of leaders (Day, 2001).

However, leadership is a complex concept and phenomenon which involves the interactions between the leader and the social and organisational environment (Shamir & Howell, 1999; Porter & McLaughlin, 2006). This perspective of leadership expects leaders to have the responsibility of building organisation involving setting the vision for the organisation and expanding their capacity to learn.

Leadership development encompasses the development of organisation by using a broader and collective framework in which leadership is developed in practice (Hernez-Broome & Hughes, 2004) and should involve everyone in the organisation.

There is good evidence alluding to the notion that leadership development is imperative in order for organisations to flourish in today's highly competitive business environment. To achieve this, leadership needs to develop at all levels within the organisation (Ready et al., 1994; Tichy, 1997; Ulrich & Smallwood, 2003; Leskiw & Singh, 2007).

Both leadership development and leader develop are equally important and necessary to increase the leadership effectiveness of in organisation (Day, 2001). Leader and leadership development should be integrated to align to the organisational strategy and goals and made available to all within the organisation, which if achieved, will have the greatest possible impact for the organisational performance (O'Toole, 2001).

2018141: Non-linear asynchronous human patient simulation as an advanced method for teaching healthcare providers

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Short Paper

Background

Simulation is one of indispensable teaching tools in healthcare education. It is used for teaching procedural, cognitive, communication and team-working skills. Most of the methods used to teach higher cognitive and communication skills are based on the KISS minimalist concept. KISS is an acronym for the original “Keep It Stupid” as a design principle noted by the U.S. Navy in 1960, which would be a more politically to rephrase as “Keep It Simple and Straightforward.”

The KISS principle has proven to be useful and found its place in healthcare education. Limitations of simulation technology have further popularized the KISS. However, after the trainees reach a certain level of expertise, the KISS approach is perceived as an oversimplification. Multiple studies of clinical reasoning and learning theories have demonstrated that learning and clinical decision making are not linear but rather complex and multifaceted mechanisms.

The Figure 1 depicts one of the many proposed clinical decision-making algorithms.

Figure 1 Clinical reasoning with the patient involved

Figure 2 demonstrates a typical high-fidelity simulation scenario

Figure 2 Typical HFS scenario flowchart

In real life, the sequence of interventions to treat a septic shock patient could be very different from the Figure 2. The patient could be given an IV fluid challenge before intubation if the airway was not emergent at the moment, or the IV fluids could be given during the intubation. Using the hypothetical scenario whose flowchart is presented on the Figure 2, a clinically valid intervention, that is performed out of the scenario pre-determined sequence, stalls the scenario. During such situations, simulation instructors usually use what is called external or internal life saver technique which is entering into the room and telling the trainees that their out-of-sequence intervention is clinically correct but the simulator cannot simulate responses if interventions are performed out of the programmed order. It is obvious that this approach compromises simulation realism and diminishes its educational value.

Since one of the goals of high fidelity simulation (HFS) is to enhance clinical reasoning and decision making applicable to real life clinical situations, HFS needs a better instrument that is not as rigid and foreign as a typical HFS scenario.

Method

Clinical decision-making is a non-linear and asynchronous multifaceted cognitive process that requires a tool that is responsive to pharmacological and non-pharmacological interventions and is capable of producing physiologic responses to such interventions in a non-linear and asynchronous way.

Human Patient Simulator (CAE)

Figure 3 CAE Human Patient Simulator

CAE Human Patient Simulator is one of the most sophisticated simulators available in 2017. It has built-in physiological and pharmacological models and has an advanced scenario scripting capabilities. During the workshop the attendees will be presented with advanced programming techniques that will transform a typical HFS scenario on the Figure 2 into a highly realistic life-like non-linear and asynchronous scenario similar to the one on the Figure 1.

One of the unique features of CAE high fidelity simulators is their capability to run more than one scenario at a time within one simulated educational encounter. This method of scenario programming has been developed by Valeriy Kozmenko, MD and Charles Hilton, MD, and was awarded a US patent.

SimMan 3G (Laerdal Medical)

Unlike Human Patient Simulator (CAE), the SimMan 3G produced by Laerdal cannot run more than one scenario within one simulated educational encounter. To enhance its scripting capabilities and enable to simulate non-linear asynchronous processes, Valeriy Kozmenko, MD, and Brian Wallenburg, NRP, have developed and successfully implemented an innovative simulation technology called the "HUB."

The HUB technology has been presented at the annual Society for Simulation in Healthcare international meeting in New Orleans in 2015, and the authors have been given an award in the area of technological innovation.

During the presentation, the attendees will be taught how to implement the HUB technology in both classic and LLEAP Laerdal simulation environments.

Conclusion

Human pathophysiological mechanisms of various diseases and clinical decision making are complex and non-linear dynamic processes. To go beyond the basics of the healthcare and effectively teach providers how to safely treat patients requires a simulation teaching instrument that reflects on the reality – a non-linear and asynchronous human patient simulator. Applying advanced scenario scripting tools to the existing simulation technology allows to achieve this result without extra cost.

2018142: Severe necrotising pneumonia in an infant: A case of serotype 3 pneumococcal conjugate vaccine failure

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Short Paper

Introduction

Streptococcus pneumoniae (SP) is a major cause of bacterial pneumonia and is responsible for almost a million childhood deaths worldwide, with 11% of all deaths occurring in <5 year-olds [1]. In England and Wales, the 7-valent pneumococcal conjugate vaccine (PCV7) was introduced in September 2006 as a 2 + 1 schedule for all infants at 2, 4, and 12 months [2]. From April 2010, PCV7 was replaced by a 13-valent pneumococcal conjugate vaccine (PCV13), with the aim of protecting from 13 most common serotypes causing IPD [2]. This conjugate vaccines are highly effective and led to a rapid decline in invasive pneumococcal disease (IPD) across all age groups [3].

The development of vaccine-type IPD (VT-IPD) after completing the recommended course of PCV immunisation (i.e. vaccine failure) is rare [4]. Little is known about the characteristics of children who develop PCV failure. Here we describe a case of severe necrotizing pneumonia in a fully immunised infant.

Case Summary

16 month-old fit and well presented unwell to the accident and emergency with a 2-day history of fever, lethargy and increased work of breathing. She has no significant past medical history and the only child of non-consanguineous parents. She was born at term following an uneventful pregnancy and has been appropriately vaccinated for age. On examination, her weight and height were within the 50th centile. She was unwell, with temperature, 39.5C; respiratory rate, 52 breaths/minutes; heart rate 161beats/minute; blood pressure, 90/50mmHg and saturation, 88% on room air, which improved to 96% on 3L of oxygen via nasal cannula. She had a left-sided reduced air entry on auscultation. Other systemic examinations were unremarkable.

Her peak CRP was 300mg/dl, and WBC 29/ml, Neutrophil 19/ml, Platelet 990/ml, Albumin 24g/L. Blood culture grew Streptococcus pneumoniae (SP), serotype 3. There was significant left sided shadowing on CXR. Ultrasound showed loculated left pleural effusion and chest Computed tomography was reported as large multilocular air cavity with mild mediastinal shift in keeping with necrosis secondary to infection (Fig. 1 & 2). Her detailed immunological work up were normal.

She was admitted initially with intravenous cefuroxime. Benzylpenicillin and vancomycin was added on D3 and D4 respectively. Her clinical condition deteriorated on D9 with haematochezia and oedematous clinically. Haemoglobin dropped to 53g/L, blood film showed toxic granulation and deranged renal function test. She was discussed with the renal team for possible haemolytic uraemic syndrome. She required blood transfusion and vancomycin was switched to Linezolid. She subsequently improved and was discharged on D20 for a further 2 weeks course of antibiotics and outpatient follow up.

Discussion

This case described a rare case vaccine failure severe in a previously healthy child who has been appropriately immunized for age. The development of vaccine-serotype IPD in a child who have been appropriately immunized with PCV (ie, vaccine failure) is rare [4]. The characteristics of this children, whether there are other associated underlying condition is unclear. This child had a severe necrotizing pneumonia, requiring long-term hospitalization and prolonged antibiotics. An underlying immune deficiency is more likely in children who develop IPD after 2 years of age [5], and those with recurrent IPD [6]. This child had no associated co-morbidity and was fully evaluated for any possible immunodeficiency.

A recent study looking at vaccine response after an episode of IPD in the United Kingdom, showed that, although a significant proportion of vaccinated children with vaccine-type IPD did not achieve protective antibody thresholds against the infecting serotype even after vaccination post-IPD, their IgG responses to the other vaccine serotypes remained intact, indicating that an underlying antibody deficiency was unlikely [7].

This child developed pneumococcal serotype 3 vaccine failure with no previous IPD or hospital admission. Evidence have shown that individual pneumococcal serotypes have different propensities for invasiveness and disease, and since vaccine immunogenicity varies for the different serotypes [8], It is therefore most likely that the IPD in this case is due to low vaccine effectiveness for this serotype that has been reported in England and Wales [9]. In infants, this serotype 3 elicited the lowest antibody response after primary and booster dose of PCV13 vaccines post [10]. It was therefore estimated that to confer some level of protection against serotype 3 IPD a very higher serum immunoglobulin G concentrations >2.83 μg/mL are required compared to the internationally accepted threshold of 0.35 μg/mL [9]; such high concentrations were rarely attained after vaccination [10].

Conclusions and Clinical Implication

The development of vaccine-type IPD after completing the recommended course of PCV immunisation is rare [4]. An underlying immune deficiency is more likely in children who develop IPD after 2 years of age [5], and those with recurrent IPD [6]. The extent of immunological investigations for individual children with conjugate vaccine failure is likely to require careful clinical assessment, and should be at the discretion of the managing paediatrician. In addition, most IPD cases are currently not vaccine-preventable. Additional strategies will be required to reduce this devastating disease.

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2018144: Developing Medical English Courses which Reinforce Patient Centred Communication Skills, Involve Intercultural Training and Instil Leadership Skills

Ms. Maria Chionis, National and Kapodistrian University of Athens, Greece

Short Paper

One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient" (Frances W Peabody in The Care of the Patient).

Doctors crossing borders to seek new professional opportunities, has become a new reality. More and more are attempting to improve their English language skills as some countries, like England, have elevated their standards in language competency. Thus, there has been an incentive created for physicians of all specializations to improve their English language skills. The acquisition of a foreign language involves much more than just learning words. In a well-developed Medical English course, doctors can learn patient centred communication skills through activities such as role-playing and a variety of problem-based learning exercises. Furthermore, as culture is an intricate part of language learning, they can acquire the sociopragmatic norms underlying both in general communication and medical practice in their new host countries. This leads to learning pragma linguistic resources needed in patient-centred communication. Moreover, leadership skills heavily rely on communication skills. Teamwork skills, synergy and cooperation, the power to influence can all be built into Medical English lesson plans.

The Medical English Terminology and Communication Course for Medical Personnel, at the Didaskaleio of Foreign Languages, at the National and Kapodistrian University, was developed and first taught in 2006. The majority of the number of students, having completed the course, go abroad to continue their career. However, one interesting finding is that those who remain in Greece apply the skills they have learned from these lessons in the Greek hospital setting. Therefore, the course does not only benefit those who relocate but those who stay behind. Many students for example, have stated how the SPIKES protocol has greatly aided them in giving bad news to patients. Unfortunately, such communication skills and useful protocols have not been built into the curriculum of the Medical Schools in Greece.

This presentation will focus on the importance of developing and implementing Medical English Courses. Furthermore, a detailed analysis will be given on how to create effective lesson plans that will not only benefit the doctor, but the patient as well.

2018145: Teicoplanin-induced anaphylactic reaction in Children: Is it really rare?

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Dr. Johanna Gaiottino, Royal National Orthopaedic Hospital, United Kingdom

Dr. Kavita Sumaria, Royal National Orthopaedic Hospital, United Kingdom

Short Paper

Introduction

Teicoplanin is now increasingly used as a first-line prophylactic therapy for major orthopaedic procedures, treatment of methicillin-resistant Staphylococcus aureus infections, and for those with reported penicillin allergy. Teicoplanin is rarely associated with anaphylaxis and there is limited information on the prevalence of teicoplanin-induced peri-operative anaphylaxis. Here, we describe a child with peri-operative teicoplanin anaphylaxis and review the available literature.

Case Summary

A 14-year-old previously healthy girl was routinely admitted for the correction of her idiopathic sclerosis. She received 2% Propofol, Remifentanil and 30mg of IV Ketamine bolus along with prophylactic 600mg IV Teicoplanin as a 20 minute infusion within a short period of time for induction of her anaesthesia. Her surgery was abandoned due to anaphylactic shock within minutes of induction. She became profoundly hypotensive (BP 44/25) with weak and thread pulses. She also developed facial angioedema. She was treated with fluid boluses, four doses of 25mcg of adrenaline, 20mg of IV chlorphenamine and 200mg Hydrocortisone. Following discharge, she reported initial forgetfulness for three days but this quickly resolved and she was able to return to school and activities as normal. However, she continued to have facial eczema and localised skin reaction around her cannula site for up to 6 weeks. She was investigated with repeat intradermal testing (IDT) for the agents used preoperatively. IDT for Teicoplanin was found to be positive (1:10 dilution, repeated twice) and delayed positive on a third occasion where she developed persistent swelling of her arm for days following the test. IDT for fentanyl was negative on (1:10, 1:100). In addition, she had intranasal fentanyl challenge as well as a graded IV fentanyl challenge to ensure that she could have opiates intra-operatively. She was also noted to be equivocal to Vancomycin (1:10000) on two occasions.

Having successfully passed a graded fentanyl challenge, she successfully proceeded with her scoliosis surgery 6 months later for which she had Fentanyl and Rocuronium along with inhalational induction agents.

Conclusions and Clinical Implication

IgE-mediated anaphylaxis to teicoplanin is encountered in the perioperative setting than previously thought, and its clinical consequences could be devastating, there is need for increase awareness by clinician and particularly anaesthetists.

2018146: Educating for collaborative practice: a literature interpretation generating reflective questions

Prof. Judith (Nicky) Hudson, University of Newcastle, Australia

Dr. Anne Croker, University of Adelaide, Australia

Objectives

There have been calls for health professional education to increase the opportunity for joint learning between health and health-related professions, as part of the training for team-work. Using an umbrella term for the phenomenon, 'educating for collaborative practice', this presentation aims to acknowledge the current body of work addressing this phenomenon while offering a perspective framed as a series of questions for reflection on future directions.

Method

A literature interpretation, using a lens of appreciative inquiry and informed by philosophical hermeneutics, was conducted using text sets comprising reports and reviews from a section of the international literature since 1988. The interpretation involved: engaging with meanings as presented in the chosen texts; making iterative returns to the texts to explore emerging understanding; and ensuring parts of our understanding from particular texts were fused with complete understanding of the texts as a whole.

Results

The interpretation identified notable achievements, and areas for further consideration in relation to three themes: Establishing shared understanding AND purpose behind use of terminology; Being a conduit AND sharing responsibility for change; Exploring ways of doing things AND ensuring ongoing inclusivity.

Conclusions

The literature interpretation of "educating for collaborative practice" has generated a series of questions. Educators are encouraged to embrace the tensions inherent in unanswered questions, providing space for communication, initiative and diversity of thought. An ongoing dialogue with the literature is proposed, asking whether educating students for a collective identity in settings where they are learning for and with patients is likely to advance educating for patient-centred collaborative practice.

2018147: Leadership: driving changes in medical education to address population health needs

Prof. Judith (Nicky) Hudson, University of Newcastle, Australia

Prof. Kathryn M Weston, University of Wollongong, Australia

Short Paper

Globally, healthcare needs are changing with the rapidly ageing population and increasing number of patients with chronic conditions and multi-morbidities. This has occurred at a time of ongoing maldistribution of the medical workforce in many countries, and increased specialisation and subspecialisation within the medical profession and medical education system. Generalism is seen as one solution to reforming the nature and education of the medical workforce so physicians are prepared to serve the needs of all patients. Generalism includes continuity-of-care; principles of person-centred decision making; and first contact care for a wide range of problems including undifferentiated and complex presentations. While specialists mostly providing condition-focused care may use some features of generalist-care, it is the whole-person focus that defines generalist expertise. With the growing burden of multi-morbidity, generalists are likely to be of great value in urban, as well as rural healthcare systems. Using generalist settings for clinical education across the vertical continuum of medical education should help develop a workforce able to respond to future healthcare needs. Leaders should apply this principle to educating a range of health professionals so they can meet the needs of the population.

2018148: Developing an interprofessional online medication system for people with long term conditions

Prof. Lesley Diack, Robert Gordon University, United Kingdom

Prof. Alison Bowes, University of Stirling, United Kingdom

Prof. Ron Lucchino, Robert Gordon University, United Kingdom

Dr. Hannah Young, PAMIS, United Kingdom

Dr. Midj Falconer, Robert Gordon University, United Kingdom

Objectives

To research and evaluate whether an online medication alert system could be beneficial for people with long term conditions and their carers. This was a multi factorial qualitative study which was conducted throughout Scotland. There were three target groups involved in the research - carers of people with profound and multiple learning difficulties who lived at home in the community, carers based in care homes working with frail and elderly adults many of whom were suffering from dementia, and the main local and national stakeholders involved in developing a holistic IT system for health and social care in Scotland. Recent research had noted that many people in these categories were often admitted to hospital with adverse drug reactions, causing a financial cost to the NHS and a quality of life cost for the person involved. This research was to investigate whether an online just in time mobile app might be able to reduce hospital admissions and improve quality of life.

Method

This was a five stage qualitative research project:

1. Systematic review of the relevant literature including peer reviewed papers, government policies and other grey literature

2. Development of research collaborations with a number of care provider networks including voluntary sector, private care homes and integrated joint health and social care boards

3. Interviews and focus groups with care staff at all levels within care homes - n=6 diverse care homes throughout Scotland

4. Interviews with carers of people with profound and multiple learning difficulties n=20

5. A 'boot camp' style of focus group with key stakeholders involved in developing or using health and social care computer systems.

These were identified by local and national government, the voluntary sector and patient groups. The data was transcribed verbatim and uploaded into the software Nvivo. All transcripts were checked for accuracy by the research staff. Analysis of the data was carried out by the research team using the software Nvivo and using thematic analysis to identify themes and sub-themes. The content and validity of the themes and sub themes were checked and verified by two members of the team.

Results

The results are being analysed just now and the full report is due in January 2018 with the Scottish Government who funded the project. Full results will be reported at the conference. Initial indications suggest that the carers at home were more supportive of this type of mobile app. and found many facilitators for its use. This was even among the group who identified themselves as less technically literate. Within the care home setting there were a number of issues including culture of the care home, age of the staff, lack of internet access and multiple health and social care providers. However there was also a consensus that this could be a suitable addition to the suite of tools available.

The results of the boot camp are not available as yet but will be analysed by the end of November. The full analysis will be complete by the end of December.

Conclusions

This project was funded by the Digital Health and Social Care Institute to research and evaluate whether a mobile application to aid with the identification of adverse drug reactions was wanted or needed by carers in the home and in care homes. The early results that it would be a useful addition to the suite of tools already available and that the main issues would appear to be communication and interoperability.

2018149: Intercultural issues experienced by international students on practice placement in the United Kingdom

Ms. Jacqueline Shanley, Coventry University, United Kingdom

Mrs. Nicky Knowles, Coventry University, United Kingdom

Ms. Julie Sellars, Coventry University, United Kingdom

Ms. Pippa Steele, Coventry University, United Kingdom

Mr. Nigel Williams, Coventry University, United Kingdom

Mr. Martyn Wyres, Coventry University, United Kingdom

Objectives

Introduction

In 2015, Coventry University recruited its first group of international students to the BSc Physiotherapy course and have continued to do so since this time. While this is a positive change, it has been noted that the progression rates of these students are not commensurate with home students.

This discrepancy is found in both academic and clinical modules, but is more pronounced in the latter, with many international students and the practice educators supervising them, reporting concerns while on practice placement, such as challenges with language and cultural differences. This is mirrored in the literature which describes a range of issues experienced by international students on placement (Carroll, 2005; Hawthorne, 2006).

In recognition of increasing numbers of international students, it is essential that these students are offered the same opportunities for success as home students. To achieve this, effective support strategies need to be developed and implemented prior to practice placement. This study represents the first stage in accomplishing this with the aim of identifying the key issues that influence successful student performance on practice placements.

Objectives

1. Identify experiences that enhance learning on placement and factors that contribute to successful progression

2. Identify experiences that hinder learning on placement and factors that affect experience

3. Synthesise the findings to develop a model of support for international physiotherapy students which enhances progression.

Method

Research question: What are the experiences of international physiotherapy students and staff who support them, of their first clinical placements in the UK?

In order to address the research question, a qualitative approach was taken, using focus groups as the method of data collection (Barbour & Kitzinger, 2001). Ethical approval was obtained from Coventry University Ethics Committee.

The views of key individuals involved in student clinical placement were sought in order to gain a rich, detailed perspective of the placement experience. Three focus groups took place comprising the following groups:

1. International students who had completed a clinical placement in the UK

2. Clinical educators who had supervised an international student on placement

3. University staff who had supported international students on placement

The focus group were recorded and transcribed. Thematic analysis was employed as the method for data analysis and peer appraisal was used to enhance trustworthiness.

Results

Similar themes were identified from the analysis of the data from all three focus groups and emphasised the cultural differences between the students and both health care staff and the clients they were treating. Findings were discussed and were used to develop a model for student support which aimed to enhance students' cultural competence and facilitate performance on clinical placement.

Conclusions

Whilst acknowledging challenges, international students brought benefits to practice placements. Supporting students from different backgrounds is essential to enable positive experiences for all concerned. The findings of this research have contributed to the development of a focused support strategy for future international students.

2018151: Profession leadership though professional societies: driving workforce change

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Prof. Michael Dooley, Alfred Health/SHPA, Australia

Dr. Ian Coombes, Royal Brisbane and Women's Hospital/SHPA, Australia

Mr. Peter Fowler, Launceston General Hospital, Tasmanian Health Service/SHPA, Australia

Dr. Lisa Pont, University of Technology Sydney/SHPA, Australia

Ms. Trudy Teasdale, Gold Coast University Hospital/SHPA, Australia

Ms. Kristin Michaels, The Society of Hospital Pharmacists of Australia (SHPA), Australia

Short Paper

In a world of rapid healthcare system change and evolving patient and healthcare consumer expectations and needs, flexibility of health workforces to adapt to change through enhanced skills and capabilities of health professionals is paramount. Likewise, professional leadership and a clear vision of a pathway for change by professional membership societies and organisations is also crucial. While the traditional professional membership body may have passively responded to member needs through communication networks and information sharing, modern member organisations need to map their vision for the future workforce and deliver education and programs for their professional members to remain skilled and relevant to the health workforce needs of the future.

The Society of Hospital Pharmacists of Australia (SHPA) is adapting to these workforce challenges and need for change. By implementing a number of new initiatives for professional development, SHPA has better defined a practitioner development framework that defines the pathway from undergraduate through to registration and progression to advanced practice for the pharmacy workforce. Three key workforce projects have been initiated in 2017:

- SHPA Residency Program [1]: a structured, formalised, supported and accredited national residency program for early-career hospital pharmacists.
- National Translational Research Collaborative [2]: to drive high quality research that provides contemporary practice-based evidence to inform pharmacy practice and quality use of medicines.
- Pharmacy Technician and Assistant Role Redesign [3] (phase II project): initiatives to build capacity in the pharmacy workforce through developing and expanding the scope of practice of pharmacy technicians and assistants.

Importantly, these Australian initiatives are consistent with international strategies for workforce change as guided by the International Pharmaceutical Federation (FIP) Workforce Development Goals (WDGs)[4].

SHPA Residency: Foundation training and development are critical for newly registered professionals to consolidate their formal academic education and apply this knowledge in real and complex workplace settings. This is outlined in FIP WDG #2 ‘Foundation training infrastructures in place for the early post-registration (post-licensing) years of the pharmaceutical workforce as a basis for consolidating initial education and training and progressing the novice workforce towards advanced practice.’

Residents participate in a two-year program. It comprises a consistent set of competency targets designed for residents to achieve performance against the Australian Advanced Pharmacy Practice Framework (APPF), at Advanced- Stage 1 (transition level) by the end of their residency, and then continue their professional development pathway aligned with the APPF. Thirty hospital pharmacy sites were accredited against the SHPA Accreditation standards for pharmacy residency programs and over 100 residents are participating in the program. Residents rotate through a diverse program curriculum, ensuring they gain the skills and knowledge necessary for competent general level pharmacists. Evaluation, feedback, and reflection are integral components of the program.

National Translational Research Collaborative (NTRC): The National Translational Research Collaborative (NTRC) is a virtual hub connecting Australia's clinical pharmacy researchers and organisations to build research capacity and hospital partnerships, strengthen research proposals and impact and leverage funding opportunities. Launched in April 2017, as at October 2017 it has over 200 individual members and nearly 40 organisational members. Since its launch, $80,000 in professional development and research grants have been offered and a number of strategies have been introduced to build research capability and embed research practice into pharmacist skill sets. Meets FIP WDG #8: Working with others in the health care team.

Pharmacy Technician and Assistant Role Redesign: SHPA has recognised that to build capacity and to develop advanced practice roles in integrated care, there is a need to build capacity not just in the pharmacist workforce but also through developing and expanding the scope of practice of pharmacy technician and assistant roles. Hence, in 2016, SHPA undertook workforce research to review current roles of hospital pharmacy technicians/ assistants, identify variations in scope of practice, and barriers to change. Phase II of this project in 2017 builds on this work to deliver the five 5 recommendations from the 2016 White Paper. Meets FIP WDG #12 and #13: Workforce intelligence and Workforce policy formation.

Transforming and scaling-up all health workforces and their education and training relies on well-coordinated, needs based research, development and evaluation strategies, designed for implementation on a national-level [5]. SHPA, guided by international workforce goals and strategies, demonstrates a clear vision for the pharmacy profession's future.

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2018152: Greek Nursing Workforce and Transcultural Competencies in Healthcare Provision

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Short Paper

The increasing diversity of Greece's population which has occurred over the past two decades brings opportunities and challenges for the health workforce. The refugee and migratory flows that move to or through Greece highlight the need for creative, knowledge-based culturally sensitive approaches to meet the needs of these population groups. The aim of the present study is to access the knowledge and attitudes of the Greek nursing workforce on transcultural approaches to health care. The purpose of this paper is to investigate whether Greek nurses have been trained in transcultural nursing, either during their studies or during their professional career, and to evaluate whether the education they received was sufficient to provide effective and quality healthcare services to people of different cultures.

The sample of the study consisted of 252 nurses working in Greece. The study was conducted via internet in order to have access to professionals from all over the country. The analysis of the results revealed that only a small percentage of healthcare professionals have been trained in transcultural nursing and feel they lack the necessary the knowledge and skills needed to provide quality healthcare services to people with different cultural needs. The majority of the nurses stated that they need more training concerning transcultural nursing and that they plan on continuing their training in the future. Over 63% of the sample said that transcultural education is a necessity in the Greek healthcare services, as the lack of transcultural competence creates challenges in everyday practice.

To meet these challenges expertise and training support should be provided to healthcare professionals through the educational institutions and professional organizations. The necessity in providing training programs on transcultural nursing and the establishment of a culture of continuing nursing education are the main findings from this study. Furthermore, the employment of intercultural mediators will assist in achieving effective transcultural communication in healthcare organizations and will provide guidance to migrants and refugees in order to understand how to navigate through the Greek healthcare system. Finally, involving immigrant healthcare professionals in formulating national policies is another recommendation that emerges from this research. The establishment of transcultural education for the nursing workforce along with continuous training will ensure the provision of transcultural health care.

2018153: Is antibiotics of any use in the management of Granuloma Annulare in Children?

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Objectives

Introduction: Granuloma annulare (GA) is a benign inflammatory dermatosis of unknown cause. The Generalised granuloma annulare (GGA) is a subtype of which tends to be resistant to treatment. Various antibiotics have been proposed as a potential therapy for GGA, the most recent being combination therapy with rifampicin, ofloxacin and minocycline (ROM). Aims: This study aims to explore the efficacy of antibiotics in treating Granuloma Annulare, and whether antibiotics may be useful in Children.

Method

We undertook a systematic review of English literature published from August 1947 to July 2017 to evaluate to the efficacy of antibiotics in treating GGA and extract relevant data in children less than 18 years. Data sources included MEDLINE, EMBASE, Cochrane library, and references of identified articles. We also searched ISI web of knowledge and conference proceedings. Eligible studies were then analysed.

Results

We identified 790 potential studies, of which 229 were duplicates. 541 were excluded on the basis of title and abstracts (Fig. 1). Of the 20 eligible studies included in the final analysis [Table1]. Studies were from USA (40%, n=8), Europe (35%, n=7), Asia (25%, n=5) and none from Africa. Majority were case studies (65%, n=13), case series (10%, n=2), cohort studies (10%, n=2) and Open label prospective studies (15%, n=3; 2 open-label prospective studies of ROM therapy and 1 of dapsone). There were 113 treated patients, 57% (n=93) were female. Children constitute 14% (n=16/113), with age range 2 – 18 years, treated with antibiotics, of which 3 were GGA and 13 Non-GGA (i.e. 8 Localised GA, 2 perforating GA, and 3 subcutaneous GA). Main antibiotic treatments reported were either the monthly combination therapy of Rifampicin, Ofloxacin and Minocycline given as ROM, or single therapy of dapsone or doxycycline/Minocycline. However, none of the children received ROM therapy. There was a good response in Non-GGA in Children with only 15% recurrence while only 33% achieve remission in the GGA. Unlike adults, no side effects reported in Children.

Strengths & Limitations. Our results highlight the strengths of combining outcomes of rare events. The lack randomised controlled trials, however, was a significant limitation. In addition, none of the literature looking at ROM combination therapy were in Children.

Conclusions

There is paucity of evidence to support the use of antibiotics in the treatment of Granuloma annulare in children. This is further hampered by tetracycline not licensed for use in children under 12 years. Although, recently ROM as shown promising results in adults, more studies are needed to validate these findings.

2018154: Impact of Climate Change on Paediatric Infectious diseases

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Objectives

Climate change refers to long-term shifts in weather conditions and patterns of extreme weather events, with recent earthquakes, floods disasters, there is epidemic and increase in many paediatric infectious diseases worldwide, including some newly-circulating ones, such as Zika virus and arboviruses in North America and the Caribbean, Cholera outbreak in Somalia, Yemen and Nigeria, SIRS in middle east and Ebola virus in West Africa etc. This reflects the combined impacts of rapid demographic, environmental, social, technological and other changes in our ways of living. Here, we examined the impact of this on paediatric infectious diseases. Aims: To review the available scientific evidences of the impact of climate change on paediatric infectious diseases. This study also examines the observed and predicted impacts of changes in major climate variables on the pathogen, host, and transmission of paediatric infectious diseases in order to estimate the future burden of infectious diseases on children globally under the recent climate change.

Method

We reviewed published and unpublished literature on climate change and paediatric infectious diseases. The data were mainly descriptive and using we used predictive analytical modelling to assess the future burden.

Results

We observed evidence of associations between climatic conditions and paediatric infectious diseases in children with different modality of transmission. The responsible agents identified were viruses, bacteria, protozoa and multicellular parasites, with various adaptations both in human host and animals and vector-borne. Increasing temperature was the most important the most important contributing factor when compared with other natural disasters such as flooding and earthquakes.

There is a global resurgence of hitherto controlled diseases and the emergence of new ones with redistribution of existing infectious diseases due to an unstable climate. Many of the most common infectious diseases, and particularly those transmitted by vectors, are highly sensitive to climate variation. New and resurgent vector-borne communicable diseases, including arboviruses, such as dengue, Zika and Ebola, and malaria are evident widely. Other infectious diseases, such cholera have shown increased outbreaks due to elevated temperature and flooding with the resultant displacement of affected people.

Conclusions

Changes in infectious disease transmission patterns are a likely major consequence of climate change. There is need for a better understanding of the causal relationships, in order to predict the future impacts of this on children's health. In addition, paediatricians are likely to see an increasingly number of cases due to adverse effects of climate change. An international collaborative effort with an early and integrated model of care is required to resolve this.

2018155: “Flatten the hierarchy!”, “Lead from the top!”: How to navigate the contradictions of complex organisational structures in practice

Ms. Emma Lowe, Department of Health and Social Care, United Kingdom

Short Paper

It is common in leadership and management literature today to read claims of ‘flattening’ or removing the organisational hierarchy. Many accounts of organisational success stemming from the reduction can be found in both academic and popular literature. There is also a degree of scepticism about whether this is really possible or advantageous. If there is no hierarchy does how are decisions made? Who is accountable? Does it create a situation in which some people do a lot of work while others do very little?

Although organisations appear to be moving away from ‘command and control’ organisational structures there is also as strong a demand as ever for leaders who create a vision for the future, communicate this effectively and take key decisions which enable this to become a reality. Current and future leaders increasingly need the skills and knowledge to understand and navigate these two potentially contradictory requirements successfully. What is less clear is how this can be achieved, particularly in a healthcare context.

In this presentation I will explore the nature of both formal and informal hierarchy in organisations, consider whether it is really possible to remove hierarchy, and what the potential risks and benefits of doing so might be in healthcare education and healthcare practice. I will examine real-world examples where a traditional top-down hierarchy has been replaced with a flatter structure, what enabled its implementation and the degree to which they can be considered to have been successful.

I will also consider the need for leaders at all levels to navigate different kinds of hierarchies at the same time, particularly as organisation structures evolve and strategic partnerships, federations and managed networks become more commonplace. In these situations there is an increasing need for individuals to work beyond traditional organisational boundaries and to lead change in situations where they have little if any legitimate authority.

My aim is that you will gain a practical understanding of how formal and informal hierarchy works in practice, in particular:

- Where hierarchy comes from and the degree to which it can be reduced or removed
- The benefits and risks of reducing hierarchy in healthcare education and practice
- The structures and behaviours which tend to increase or decrease hierarchy
- The knowledge, skills and behaviours needed to navigate the interplay of complex hierarchies, particularly for leaders.

2018158: Leadership: Is a new approach needed when it comes to digital?

Ms. Jess Radcliffe, NIHR, United Kingdom

Short Paper

The NIHR Clinical Research Network (CRN) is a managed network charged with providing research delivery support for NHS commissioned services. It has grown its activity rapidly and now funds over ten thousand research professionals and clinical research practitioners. The Network currently recruits over 600k patients annually into clinical studies and supports a national portfolio of research from a wide variety of disciplines. It is also part of the emergency preparedness infrastructure of the Department of Health in order to rapidly respond to global health challenges. This is a unique leadership context and there is a clear requirement for future clinical research delivery leaders from across the professions to be both confident and competent to lead across the NIHR CRN.

As an organisation, we are working to improve both agility and mastery of good leadership and management to ensure we are equipped to face the challenges and opportunities ahead.

Thinking wider than our own context, what does that mean when the expertise and the ideas sit at the other end of the organisation? Digital transformation is a priority for health organisations on a global scale, with increasing universal pressures with regards to funding and staffing. But the difference of digital transformation to previous transformation approaches is that a large proportion of the knowledge and expertise is sitting in a different part of the organisation. Where experience is often found at the top in a traditional hierarchy, here it is more broadly spread across lower levels. This group have the capacity to be digitally innovative, however they often lack the experience to navigate the system and more traditional structures and governance of organisations.

This abstract asks a question: how do we approach leadership development in this context and how do we accurately identify the need across our Network?

2018160: Cost-effective method of enhancing long-term knowledge retention for high fidelity simulation

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Objectives

Multiple studies have shown that newly acquired knowledge or skills will quickly degrade and return to the pre-training level if they are not reinforced. Repeated exposure to the abstract concept or skill is required to increase their retention. At the same time, when a person is re-exposed to the same content his or her brain subconsciously skips information that seems familiar thus reduces reinforcement. It explains why multiple consequential reading the same chapter in the book or repeating the same procedural skills often fails to increase knowledge or improve the skill. High fidelity simulation (HFS) has been proven to produce significant knowledge and skills gain. Its effectiveness is partially explained by its active learning mechanism vs passive learning that is typical for didactic teaching. Attempts to improve long-term retention of newly acquired knowledge and skills via repeated HFS experiences has two challenges to overcome: (1) it is expensive; (2) repeating the same scenario multiple suffers from the same subconscious skipping phenomenon as reading the same book several times. Taking into account high cost of high fidelity simulation, which according to Gaba and McIntosh (2005) is between $700.00 and $1500 per hour makes this approach less feasible. Using a different simulation modality has been used to enhance long-term retention of the knowledge and skills acquired via HFS. Traditionally, these modalities included screen-based simulation, small group discussion, and Standardized Patient-based simulation. University of South Dakota Sanford School of Medicine has investigated an innovative method of enhancing long-term retention via a method that has been called by its inventors the “induced flashback”.

Method

After identifying trainee’s educational needs, a high-fidelity scenario with specific learning objectives (LO) and teaching goals (TG) are developed. Teaching goals are abstract concepts while learning objectives are predominantly observable behaviours that reflect on understanding of the corresponding concepts. To establish knowledge baseline, students are given a multiple choice quiz whose questions are linked to the teaching goals and learning objectives. After completing a simulation scenario on the simulator, a teaching faculty conducts a debriefing session in the form of facilitated discussion during which each teaching goal and learning objective is discussed. Debriefing is the part of high fidelity simulation when the actual learning occurs. Immediately after debriefing, the students complete the same quiz that they have done prior to simulation. The difference in the scores between pre- and post-activity quizzes shows an acute knowledge gain. Additionally, tight linkage between learning objectives and teaching goals on one side with debriefing points and the multiple choice items on the other sides consolidates the information. Administering the same quiz or a differently worded quiz that addresses the same concepts four two six weeks later makes the information from debriefing session operational in a similar manner as it happens in post-traumatic stress disorder that it was called “induced flashback.” To measure knowledge retention, the students are tested with the same or similar quiz six months later (Picture 1).

Results

Twenty seven medical student have participated in this IRB-approved study. Five minutes prior to the simulation session, they have completed a twenty item multiple choice quiz. Following the high fidelity simulation encounter, they participated in the post-activity debriefing during which their performances, decision making and abstract concepts were discussed in the form of facilitated discussion. Immediately after debriefing, the students repeated the quiz. Six weeks later, a random number generator was used to select fourteen students to perform a spaced quiz (Test 3 on the Picture 1). Six months after the simulation activity the entire cohort repeated the initial quiz to measure the long term knowledge retention.

Figure 2 Pre, post-activity, spaced and final test results.

Table 2 demonstrates the test results obtained during this study. Control group shows knowledge degradation to the pre-activity level that correlates with multiple previous studies. At the same time, students who performed the spaced quiz and subjected to the "induced flashback" phenomenon have retained 21.1% more information than their counterparts in the control group.

Conclusions

Using alternative simulation modalities helps to enhance long-term knowledge and skills retention acutely acquired with high fidelity simulation. Traditionally, these modalities included screen-based simulation, small group discussion, standardized patient-based methods of teaching and several other engaging techniques. In simulation world, using multiple choice questions has been traditionally reserved for measuring educational outcome rather than for teaching. Our study allows to postulate that using repeated quiz could be used to trigger recollection of the debriefing session that took place after simulation-based training, make long-term archived information operational and enhance long-term knowledge retention.

During this study, quizzes #1, #2, #3, and #4 were identical, and it could be argued that the students just better memorized the correct answers rather than improved on their conceptual reasoning. To address these limitations, we plan to convert an existing quiz into four quizzes where the same concepts are tested with the use of different clinical vignettes. Doing that, we will eliminate the confounding factor of mechanical memorization of the correct answers and will test students' knowledge at the higher conceptual level.

Study conducted by the University of South Dakota Sanford School of Medicine has demonstrated that students who were subjected to the spaced multiple choice quiz whose questions were closely linked to the learning objectives of the training have had a statistically significant higher knowledge retention, six months after training than their counterparts in the control group. Taking into account high cost of high fidelity simulation using this method is cost-saving.

2018161: The Impact of Simulation on Paediatric Nursing Students' Knowledge, Self-efficacy, Satisfaction, and Confidence

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Objectives

The simulation technology is rapidly expanding and has been used in several nursing programs around the world and in Saudi Arabia too. The aim of this study was to evaluate the effect of using a simulation based scenarios on the paediatric nursing students' students' knowledge, self-efficacy, satisfaction, and confidence.

Method

Study design: A descriptive one group pre-test/post-test design was employed to answer the following research questions

1. What are the difference in the paediatric student's self-efficacy mean scores before and after simulation?

2. Are paediatric nursing students satisfied and self-confident with their learning after completing clinical simulations session?

3. What are the relationship between self-efficacy, self-confidence and satisfaction of paediatric nursing students?

Sample and Setting: This study was conducted at the College of Nursing, paediatric simulation lab in Saudi Arabia. The paediatric lab contains low- and moderate-fidelity infant and child simulators. One high fidelity infant manikin and a medium fidelity child manikin were used to conduct the study. A convenience sample of 158 third year baccalaureate nursing students enrolled in a paediatric nursing course were participated in the study. The average age of the participants was 20-25 years. The sample closely approximated the demographics of the university and of the regions in which the university at large recruits students. The sample characteristics are summarized in Table 1.

Procedure: The study was approved by the Research Unit Committee of the college at which the research took place. Participants were assured that they have the right to withdraw at any time without academic consequence. Strict confidentiality was maintained. The nursing college in which the data were collected lately invested in both high- and low-fidelity simulation labs including paediatric nursing lab. To assess the impact of simulation training on student learning and to improve instruction, data are being collected on students as part of the teaching and learning process of the nursing care of children and their families' course. Students were asked to respond to a pre-test questionnaire which included socio-demographic data questionnaire, knowledge and self-efficacy, before experiencing any simulation training. A variety of clinical scenarios about child who have respiratory problems such as asthma, bronchitis, bronchiolitis and a child with cardiac congenital heart disease scenarios were presented in the high-fidelity and low fidelity manikins. The scenarios were written by paediatric nursing instructors. Before beginning the simulation sessions, all students attended an orientation session on the simulators and the equipment in the paediatric nursing lab at the college. Next, each student was given a small cart with the "child" history, medications, oxygen saturation, blood pressure and pulse and other important information. Some of the participants acted

as nurses in the hospitals while others acted as mothers. A 20 minute debriefing session in the lab was conducted after each case to clarify any concerns and give feedback to the participants.

Instruments: Data was collected by using four set of questionnaires: 1) The Socio-demographic Data, 2) knowledge questionnaire, 3) General Self Efficacy scale (GSE), 3) Satisfaction with Learning and Self-confidence in Learning questionnaire (SCL). The Socio-demographic Data Questionnaire was designed by the researchers. It covers participant's personal information such as age, education, marital status, previous experience in simulation.

Knowledge questionnaire: Participant's knowledge acquisition and retention was assessed with written multiple choice questions exam before and after clinical simulation experience. The exam questions covered topics on respiratory system including asthma, bronchitis and bronchiolitis. The pre and post simulation experience scores were used as a proxy measure of the participant's knowledge. The pre and post tests exams were equivalent in content and graded by the researchers. Students were awarded one point for each correct answer using a standardized grading rubric.

Self-efficacy: Students' self-efficacy was measured using the General Self Efficacy scale (GSE) (Schwarzer & Jerusalem, 1995). The GSE is a 10-item scale designed to assess self-perception about one's ability to cope with a variety of difficult situations in life. The General Self-Efficacy Scale scores range from 10–40, with 40 indicating the highest possible score. The average time to complete the scale is 4 minutes. Reliability of the scale has been established in samples from 23 nations with Cronbach's ranging from .76 to .90, with the majority in the high 0.80s (Jerusalem & Schwarzer, 1995).

Satisfaction with Learning and Self-confidence in Learning (SCL): Student's satisfaction and self-confidence in learning were measured using a 13-item, 5-point Likert-scale developed by the National League for Nursing (Jeffries, 2005). The instrument is divided into two subscales which are designed to measure student satisfaction (five items) and self-confidence (eight items) respectively in learning through simulation. Scores may range from 5 to 25 for the satisfaction subscale and 8 to 40 for self-confidence subscale, with higher scores indicating greater satisfaction. The content validity of the instrument was established by nine clinical experts (Jeffries and Rizzolo, 2006). The values of Cronbach's alpha have been reported as 0.94 for satisfaction subscale and 0.87 for self-confidence subscale.

Results

The majority of the students were unmarried (96.84%) and had no previous experience in simulation. There was a significant statistical difference in pre- and post test knowledge and self-efficacy scores. Students were satisfied with the simulation experience and their self-confident scores were higher after the simulation session. That post simulation self-efficacy was positively correlated with satisfaction ($r = .46$, $P = 0.001$) and self-confidence ($r = .50$, $P = 0.001$). Satisfaction with simulation was also positively correlated with self-confidence ($r = 0.46$, $P = 0.001$).

Conclusions

The results of this study identify human simulation as an effective teaching and learning modality in teaching paediatric nursing students. This study provides a stepping point for understanding how simulation may affect the students' knowledge, self-efficacy and confidence.