

# **Abstracts from the International Conference on Public Health, Health Education, and Health- care Services PHH 2023**

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# Thermographic Changes Following Aerobic and Anaerobic Exercise Stress Tests

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## Abstract

Background: Many studies investigated infrared (IR) thermographic changes following exercise mostly aerobic, but much less, following short, vigorous anaerobic exercise. Aim: To investigate the surface temperature changes of the respiratory muscles (chest) during high intensity aerobic exercise and of the lower and upper limbs, following an anaerobic effort. Methods: Thermal images were taken at rest, and then during each stage of the aerobic exercise (until exhaustion), and immediately after the Wingate anaerobic test. Images were processed to obtain a mean and max temperature in the regions of interests. We also developed an algorithm to calculate the distribution of temperature and texture (entropy) within each region. Results: No changes were found in absolute temperatures, though the entropy of the chest surface area increased significantly throughout the aerobic exercise test, and was significantly correlated with exercise duration, intensity, and pulmonary ventilation ( $p < 0.001$ ). Following the anaerobic exercise maximal surface temperatures were significantly higher in all measured regions ( $p < 0.04$ ). Participants who exhibited lower anaerobic capacity had a higher delta increase in surface leg's temperature compared with participants with higher anaerobic capacity who had a minimal change in leg's temperature. Conclusion: Non-invasive thermal imaging during aerobic exercise showed high correlation with work of breathing during high intensity aerobic exercise, while following anaerobic exercise test surface temperatures continue to increase even into the recovery period. Further studies are required to validate our results on other patient's population.

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## Biography

Prof. Mickey Scheinowitz (PhD) was until recently the Chair of the Department of Biomedical Engineering, the Founder and Director of the Biomedical Technology Innovation Program and the Founder and Director of Sylvan Adams Sports Institute, Tel Aviv University. Prof. Scheinowitz research interest focuses on the understanding of the physiological changes associated with exercise testing and training (conditioning and adaptation) as well as factors that can improve exercise performance and delay fatigue. Prof. Scheinowitz is co-founder of STFix, an orthopedic implant for torn rotator cuff, and serves as advisor to a wide range of medical device and sports related companies. Prof. Scheinowitz is also co-author of several patents

## Transforming to a Services and Digital-based Healthcare Regulatory Regime in Singapore

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### Abstract

Increasing digitalisation has improved accessibility and care quality in Singapore, particularly so during the COVID-19 pandemic. Notably, the provision of healthcare services (e.g. telemedicine or mobile medicine) is no longer confined to the limitations of the traditional brick-and-mortar settings – regulators need to ensure that their regulatory regimes continue to remain up-to-date, efficient and effective. As part of taking a more flexible and responsive regulatory approach to accommodate new models of care, the Ministry of Health, Singapore, is shifting from the premises-based Private Hospitals & Medical Clinics Act (PHMCA) to a services-based Healthcare Services Act (HCSA) to support a broadened regulatory scope and enhanced governance. We will also be introducing a range of regulatory tools, besides legislation, to better regulate the diverse range of healthcare services which poses different set of patient safety risks. At the same time, Singapore is digitalising our healthcare sector to reap the benefits of better continuity of patient care through better interconnectivity of healthcare systems and data. Nonetheless, increasing digitalisation also brings about greater risks of cybersecurity incidents and data breaches to healthcare organisations, providers and professionals which can potentially impact the quality and outcome of patient care. Hence, Singapore will be establishing a Health Information Bill (HIB) to enable the safe and secure collection, storage, access, and sharing of patient health data between healthcare providers. This will also serve as a critical pillar for Singapore’s broader agenda to focus on preventive health, the “Healthier SG” initiative. Through the HIB, we aim to better support care continuity via a multi-pronged approach, to foster trust with the public and healthcare professionals. This includes (i) a requirement for licensed healthcare providers to contribute summarised set of health data into a centralised national repository, (ii) facilitating proactive sharing of health data between providers within the healthcare ecosystem, and (iii) ensuring appropriate cybersecurity and data governance measures to ensure safe and secure storage and sharing of data within IT systems and connected medical devices. To do so effectively, we have started to develop a set of Healthcare Cybersecurity Essentials, support and training packages as well as Cybersecurity Labelling scheme for Medical Devices to help our healthcare providers.

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### Biography

PA/Prof Raymond Chua graduated from the Faculty of Medicine in National University of Singapore in 1997. He was awarded the United Kingdom Chevening Scholarship to take up a Masters of Science in Public Health at the London School of Hygiene and Tropical Medicine, University of London in 2002. Raymond also holds a MBA degree from the University of Nottingham. He is a Registered Public Health specialist and Fellow with the Academy of Medicine, Singapore since 2007. Raymond is currently the Deputy Director of Medical Services to oversee and reform the regulations of healthcare services, premises (including hospitals, clinics and nursing homes) and health digitalisation in Singapore, so as to safeguard public health, assure patient safety and ensure healthcare data security. Prior to that, his career spans both public service and private sector pharmaceutical industry from 2007 to 2011. From 2012 to 2016, A/Prof Chua was also the Group Director of the Health Products Regulation Group in the Health Sciences Authority. In 2019, he has also been concurrently appointed as the Assistant Commissioner for Cybersecurity in the healthcare sector by the Cybersecurity Agency of Singapore (CSA) to assist in tracking and enhancing the cybersecurity policies relating to the Critical Information Infrastructures and medical devices in Singapore. He also holds other adjunct academic appointments, including an Adjunct Associate Professor in the Saw Swee Hock School of Public Health in National University of Singapore and Centre of Regulatory Excellence in Duke-NUS. He also co-chairs the Public Service Division’s Regulatory Advisory Group since 2019 to provide guidance and directions in the use of appropriate regulatory tools and capability development of regulators in the public service. He is also a member of the Enforcement Practices Advisory Panel to help steer the development of the training and career development of the enforcement officers in the public service. Raymond also chairs the Council Committee on Business Development under the Singapore Accreditation Board, and is a Committee Member of the Singapore Accreditation Council and the Advertising Standards Authority of Singapore.

# Protective Measures against COVID-19 and Infection Risks in the Construction- and Cleaning Industry in Germany

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## Abstract

**Background:**To protect against COVID-19 infection, appropriate regulations were also issued in Germany for occupational activities. In addition to the obligation to work from home where possible, there was, among others, an obligation to maintain 1.5 meters, to wear masks and to ventilate regularly, as well as quarantine in the event of infection with COVID-19. **Objectives:** The extent to which the protective measures have been complied with has not yet been investigated for the construction and cleaning trades in Germany. However, this question is of decisive importance to be able to assess which regulations can be sensibly implemented at all and are implemented at all in operational practice. It is also important to know in which occupational groups increased numbers of infections occur and how high the underreporting rate is. **Methodology:** We were able to survey  $n = 219$  women and 3,493 men working in the construction and cleaning trades about the implementation of protective measures against COVID-19, occupational situations and private circumstances, who attended AMD BG BAU GmbH's participating occupational health service centres from the end of December 2020 to the beginning of May 2021 for occupational medical examinations. **Results:**The questions on the implementation of protective measures were evaluated subdivided according to the predominant place of work (construction site, cleaning trade and office).The following data refer to men.

The predominant adherence to a distance of 1.5 meters was affirmed for activities on construction sites by 47.4%, in the cleaning trade by 66.7% and in office activities by 85.0%. The wearing of a mouth-nose covering in case of non-compliance with the distance of 1.5 meters was affirmed in construction site activities by 47.9%, in the cleaning trade by 70.8% and in office activities by 67.6%. The requirement for regular ventilation in offices was mostly complied with (men 86.4%, women 90.0%).The differentiated evaluation according to known as well as unknown previous infection detected only by antibodies showed an underreporting rate of 70% in men and 64% in women. Indications of an increased risk of infection were found for office work and for women in cleaning work in hospitals. A clear influence of compliance with protective measures on the risk of infection could not be established. **Conclusions:**The prescription of protective measures does not mean that they are also fully implemented in operational practice. It cannot be expected that all ill persons and their contacts can be recorded. Compliance with general protective measures is thus of great importance. The increased risk of infection in the cleaning trade when working in hospitals, especially among women, accords well with other studies and points to the need for consistently implementing protective measures in this area in particular.

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## Biography

Dr. med. Thomas Solbach studied medicine in Aachen and Vienna. Then he went to occupational medicine via various stations (naval, internal medicine) and completed further training with Prof. Weitowitz, University of Giessen. Since 1993, he has been an employee of the Bau-Berufsgenossenschaft (German institution for statutory accident insurance and prevention for the construction industry). Here he was first the manager of an occupational health center, then the district manager. He has been working as a consultant for occupational medicine and epidemiology since 2019. His specialties are pneumoconiosis, occupational cancer, diving, and hyperbaric medicine. Among other things, he heads the working group on hyperbaric medicine at the German Social Accident Insurance.

## **Surgical Treatment of Abdominal Oncological Emergencies during the Covid-19 Pandemic**

Lindita Shosha Mano, MD, PhD

Consultant General Surgeon, Director of Academic Strategy & Medical Education, Clinical Medical Director CMO, Amerikan Hospital, Tirana, Albania

### **Abstract**

Regardless of the fact that the COVID-19 Pandemic has affected the health care of the population in many ways, this did not prevent dealing with major surgical emergencies and their solution with a specific approach and in the conditions of danger, threat and difficulties that this virus carried for both sides, the medical staff and the patients. Health institutions in the country offered clear instructions for hospitals to perform safe operations during the pandemic, which include clinical evaluation, PCR buffer, thoracic CT and recently rapid test. Studies have shown that positive test rates of COVID-19 infection among hospital staff decreased after universal PPE protection was required. In this framework, the American Hospital and the medical staff take careful steps to provide security of service and provide surgical care for all surgical and elective emergencies in various disciplines that are presented for medical assistance. What was taken into consideration by the surgeons: The urgency of the condition of the patient who needed surgery, since each patient is operated on an individual basis, the general condition of the patient at the time of presentation to the hospital. Safety precautions in the hospital made available all the necessary material base for the common safety of patients and staff, ensuring supplies of PPE, and safe diagnostics for the exclusion or presence of the Covid 19 virus in these patients through the PCR test, thoracic CT , and recently rap test or quick test. This diagnostic aid was crucial for safe surgery. Whether or not recovery required ICU care, the risks of waiting versus performing emergency surgery during the pandemic were carefully considered. Patients who needed intervention were operated on. For tumor surgery, factors such as the stage of cancer, type of cancer, stage, complications, concomitant diseases and the general condition of the patient were taken into account. Some research also shows that when healthcare workers wear PPE, their infection rates are no higher than the general public. With these safety steps in place, the risk of a patient contracting COVID-19 during surgery or in the hospital is extremely low. Hospitals take extra steps to fully sterilize all areas, including operating rooms, wards, and imaging and diagnostic facilities. . The covid wards that treat confirmed and infected patients with COVID-19 are in separate areas of the hospital with the staff staying in that area, they circulate in a separate entrance, to reduce the risk of spreading the virus, regardless of whether there is an entrance special and gray areas for patients receiving outpatient therapeutic treatments for COVID-19 this area in particular.

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### **Biography**

Dr. Sc. Lindita Shosha Mano is currently working as the Clinical Medical Director of American Hospital, President of V IMCA 2022, Vice President of South Europe, ISUCRS, and Director of Academic Strategy and Medical Education at American Hospital, Albania. Also serving as the President of AMEA, the Albanian Medical Education Association, and President of the Bursary Committee of the Excellent Students of the Faculty of Medicine. Dr. Sc. Lindita Shosha Mano studied postgraduate medicine at the Hospital of BERAT, Albania. Dr. Sc. Lindita Shosha Mano has more than 100 publications, presentations, and medical articles, both national and international. Dr.Lindita Shosha is awarded the Leader in “Providing Quality Health Care throughout the Pandemic” by the Association for Albanian Excellence in December 2021, Albania.

## Development of an Algorithm for Early Detection of Atrial Fibrillation Using Apple Watch - Results from the Apple Watch Heart Study

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### Abstract

**Background:** Wearable devices, such as the ability to record electrocardiograms with the Apple Watch, have improved the quality of home health care. More efficient use of these is needed to detect undiagnosed atrial fibrillation (AF). **Objectives:** The purpose of the study is to utilize the various healthcare data collected by the Apple Watch to build an artificial intelligence model that takes into account known AF attack risks such as sleep deprivation and stress, leading to the detection of undiagnosed AF. **Methodology:** A research application (Heart Study AW) was built using the iPhone as an IoT device to collect healthcare data such as heart rate, activity level, and sleep duration. One hundred AF patients visiting Keio University Hospital were examined with a Holter ECG and a portable electrocardiograph for two weeks. The algorithm was constructed by learning from the recorded AF events to predict attacks from the health care data. We also collected health care data from Apple Watch users across Japan and evaluated the algorithm in healthy subjects to assess its usefulness for detecting undiagnosed AF. **Results:** Patients with AF at the hospital had a mean age of  $64 \pm 12$  years, a mean CHADS2 score of  $0.9 \pm 1$ , and a mean CHA2DS2-VASc score of  $1.7 \pm 1.5$ . The heart rate measured by Apple Watch was significantly higher during attacks ( $p < 0.001$ ) and the average number of steps per day the day before the attack was significantly higher ( $p = 0.022$ ), and the average sleep duration was shorter ( $p=0.088$ ). Considering these parameters, we built the artificial intelligence model to predict arrhythmia attacks (F-measure: 0.896). A total of 8,935 nationwide Apple Watch users participated in the study and were evaluated on a total of 40151.3 days of data of wearing Apple Watch. **Conclusions:** Our results suggest that an artificial intelligence model utilizing healthcare data collected by Apple Watch could inform the proper timing of ECG recordings to efficiently detect undiagnosed AF.

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### Biography

Dr. Kimura is a cardiologist in Japan, working as an assistant professor at the University of Keio University School of Medicine. As an arrhythmia specialist, he has been conducting clinical practice utilizing leading-edge technologies such as catheter ablation and device implantation surgery. On the research side, he is engaged in development and research aimed at providing safer and more efficient medical care by integrating ICT (Information and Communication Technology) into medicine. In particular, he focuses on the medical application of healthcare data and digital cardiology through the development of artificial intelligence models. He will be presenting his research on a clinical study conducted on Apple Watch users across Japan using the iPhone as an IoT device.

## Factors Related to Physicians; Smoking and their Role in Promoting Smoking Cessation: the case of the Arab physicians in Israel

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### Abstract

**Objectives:** Smoking remains the leading preventable cause of disease, disability, and death around the world. While physicians have high levels of knowledge of the consequences of smoking and have an essential role in the smoking cessation of patients, some physicians still smoke. This qualitative study aimed to understand physicians' perceptions of the factors related to their smoking and their role in promoting smoking cessation. **Methods:** The data for this study was collected through individual semi-structured interviews with 25 currently smoking physicians working in hospital and community clinic settings. In addition, a thematic analysis was performed to identify salient themes and subthemes from the interviews. **Results:** Participating physicians discussed five main themes. Firstly, factors related to their smoking include addiction, stress from the licensing tests, workload, and the influence of coworker smoking culture. Secondly, smoking is a familiar way of coping with the difficulties of life and work. Third, an internal conflict emerged as physicians were expected to be role models for a healthy lifestyle while smoking. Fourth, their perceptions of smoking in public, and finally, their role in the management of tobacco smoking cessation amongst patients. **Conclusions:** This study provides a more detailed and in-depth understanding of the fundamental factors and attitudes related to physicians' smoking. Therefore, it is essential to support, empower and provide them with knowledge regarding cessation and tools to deal with life and work difficulties, in addition to stress-management skills and coping strategies.

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### Biography

Dr. Samira Obeid, is a head of the Public Health Research Department, North District, Ministry of Health since 2022. In addition, since 2012 she has been working as a senior lecturer at the Max Stern Yezreeli Valley College, Nursing department. In 1988, she completed her undergraduate studies in nursing at the Hebrew University in Jerusalem. She worked as a nurse for a year and since then have held several administrative positions. She served as deputy Head Nurse and subsequently Head Nurse in the Neonatal Intensive Care Unit (NICU) at Carmel Hospital, Clalit Health Services; Head of Nursing at a primary care clinic, Clalit Health Services; and District Project Coordinator for the Haifa and Western Galilee District of Clalit Health Services. Since 2008, she served as Head of the Health Promotion Department, Ministry of Health, Northern District, Nazareth. In addition, she is a member of several national and district committees that are influential in setting health policy for the general population in Israel, and particularly for the Arab population.

## Concurrent Infectious Outbreaks During Covid-19 Pandemic: A Case Series and Two Case Reports

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### Abstract

**Introduction:** The COVID-19 pandemic has deeply impacted healthcare systems of almost all countries. Hospitals being swamped with cases and running out of critical medical supplies and burnout among healthcare professionals have received a lot of media attention. What has been ignored is the impact of breakdown in disease surveillance mechanisms on other common diseases. In this paper we present a case series of 10 dengue-COVID-19 cases and report a case of COVID-scrub typhus co-infection and a case of Zika virus infection mimicking COVID. **Case series:** Dengue fever and its atypical manifestations and complications are very common in tropical countries. The initial clinical presentation of both COVID-19 and dengue maybe similar thereby posing a diagnostic dilemma. Breakdown in public health measures during COVID led to a sharp decline in anti-mosquito and larvicidal activities leading to a surge in dengue cases resulting in multiple cases of dengue-COVID co-infections. Dengue is known to cause vasculopathy, coagulopathy and thrombocytopenia and COVID-19 is associated with coagulopathy and microthrombosis. The impact of the confection oh humans has not been studied in detail. We present a case series of 10 patients with dengue-COVID-19 co-infection. We compared their clinical profile and laboratory markers with those with only COVID-19 infection. In our study all the co-infected patients manifested only mild symptoms of COVID 19 (minimum SpO2 recorded was 97%) irrespective of age, sex or comorbidities. Desaturation and need for oxygen therapy was seen in 4 out of 10 cases of COVID. Though 4/10 patients in the co-infection group had radiological features suggestive of viral pneumonia, they did not require oxygen therapy. All patients in both groups recovered by D6 - D11 of hospitalisation. Inflammatory markers were lower in the co-infected patients than in those with only COVID-19. The most striking difference was in D- dimer levels. Dengue disrupts coagulation cascade and platelet aggregation and causes thrombolysis whereas COVID19 predominantly cause microvascular thrombosis. This opposing effect might play a role in the pathogenesis and clinical picture of patient co-infected with COVID-19 and Dengue fever. This interesting, yet striking “Dengue effect” on COVID-19 merits further study. **Conclusion:** The COVID-19 pandemic put considerable strain on public health resources and measures in all countries. Developing countries in the tropics have to contend with multiple seasonal outbreaks and without a vigilant public health system, these outbreaks can cause great morbidity and mortality. Outbreak of poliomyelitis in the US and measles now in Mumbai are two further examples. This paper would like to highlight the need to strengthen infectious disease surveillance systems in developing countries and build capacity for Infectious Diseases as a critical speciality course.

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### Biography

Professor VK Sashindran is currently working as dean for the Dr D Y Patil School of Medicine, Navi Mumbai, India. He has been a jury member for the International Undergraduate Awards, Ireland, since 2018. His areas of interest are infectious diseases, HIV/TB, geriatrics, and public health. He has many national and international publications. He received the Chief of Air Staff Commendation on January 26, 2009, and the Visit Seva Medal on January 26, 2018.



# Demographics and Clinical Characteristics Associated with Course Completion of a Web-based Lifestyle Educational Program for People with Multiple Sclerosis

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## Abstract

**Background:** Multiple Sclerosis (MS) is a chronic, debilitating neurological condition that affects more than two million people worldwide. While digital health interventions for people with MS (pwMS) can increase access to MS-related knowledge, course engagement in this population is low and few studies have examined factors affect engagement in online learning in the context of MS. An understanding of factors associated with course commence and completion is essential to minimise dropout rates. **Objective:** This paper identifies demographics and clinical factors associated with course commencement and completion among 464 participants from the Multiple Sclerosis Online Course (MSOC) study. **Methodology:** The MSOC was developed by researchers, in conjunction with people with MS, to transform an existing face-to-face evidence-based lifestyle intervention into a 6-week online educational program. Participants were recruited via online advertisements and MS societies. Information on demographics (e.g., age, education, marital status, employment) and clinical (e.g., MS type, disability, fatigue) characteristics of participants was collected using a self-reported online survey prior the course. Associations with completion vs non-completion were assessed using multivariate logistic and linear regression models. **Results:** Around 15% participants enrolled but did not start the MSOC, two-third started (60%) but did not complete the MSOC and one-third completed the course (29%). Having a partner was associated with 7% higher likelihood of starting the course and fatigue was associated with 13% lower likelihood of completing the course. **Conclusion:** Consideration of the influence of demographics and clinical factors is warranted for improving engagement and completion of online lifestyle interventions for MS.

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## Biography

Ms. Maggie Yu is a Research Assistant in the Neuroepidemiology Unit, Centre of Epidemiology and Biostatistics, Melbourne School of Population and Global Health, The University of Melbourne, Melbourne, Australia. Ms. Yu obtained her BA of Applied Science (Psychology), Master of Public Health and Master of Psychology from Deakin University in Melbourne. Before coming to University of Melbourne, she worked as a Senior Research Officer at the Australian Institute of Family Studies, where her research focused on child and adolescent development. Ms. Yu has worked closely with large cross-sectional and longitudinal datasets, including the Australian Temperament Project (ATP) study, the Growing up in Australia: Longitudinal Study of Australian Children (LSAC), the Early Home Learning Study (EHLS), and the Household, Income and Labour Dynamics in Australia (HILDA). She has a substantive interest in child development, parenting behaviours, mental health, and a range of other issues that relate to promoting health and wellbeing of people with chronic diseases.

## **More Milk Sooner-The Value of Prenatal Hand Expression/Colostrum Collection in Public Health Emergencies such as Covid 19**

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### **Abstract**

**Background/Problem:** The aftershocks of Covid 19 were felt in almost all aspects of our patients lives but for the prenatal and postpartum family it increased the complexities related to infant feeding in ways none of us could have predicted. Families were discharged from hospital sooner, nurses and lactation consultants whose job it was to help breastfeeding families were quickly redeployed to contact tracing and case management. This left families with very few supports should they need breastfeeding help. Simultaneously, interruptions to supply chains for formula/artificial baby milk and panic buying by anxious families caused food security issues for families across North America. Families were showing back up at the emergency department with higher frequency due to challenges in feeding. These and multiple other social factors, contributed to higher rates of postpartum depression and anxiety. **Objectives:** The primary reason for early cessation of breastfeeding in Canada is related to low milk supply. At the same time as the emergence of Covid 19, a small medical group in rural Canada was helping low risk pregnancy families have an easier time ensuring adequate breastmilk supply using, antenatal/prenatal hand expression/colostrum collection. We are currently involved in clinical research to determine the effect of prenatal hand expression on the rate of exclusive breastfeeding to two months. **Methodology:** Prenatal hand expression, which is widely accepted and encouraged in the gestational diabetic community, is the basis of their program “More Milk Sooner”. Their program helps to scale this opportunity to learn and practice hand expression in the prenatal period to all low-risk families. It further assists with earlier onset of lactogenesis two and bountiful milk production in the postpartum period. If families were/are able to collect some colostrum this frozen colostrum can be very beneficial, if needed, in the first few days postpartum. Our research project is a prospective observational cohort study in which subjects will be identified and enrolled based on inclusion criteria and will be followed in one of two cohorts: (1) those who received standardized training in PHE and have practised PHE from 36 weeks gestation for at least 10 days, or (2) those who have not received standardized training in PHE and/or have not practised PHE from 36 weeks for at least 10 days. **Results:** It is expected that this study will show that the practice of PHE from 36 weeks gestation for at least ten days will increase the rate of exclusive breastfeeding to two months. Join them to learn about the research and the story of how at a time where things were increasingly alarming for families their program brought hope to women/families across North America. **Policy Implications/Conclusions:** In areas where breastfeeding rates are low, prenatal hand expression/colostrum collection is a tool that can boost confidence, assist with earlier onset of lactogenesis two and protect the mother baby dyad from stress in the early days of infant feeding. It also helps increase the food security of the new family.

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### **Biography**

Naida Hawkins is a passionate registered nurse with 14 years experience caring for the breastfeeding family. When Naida became aware of the power of prenatal hand expression, she left her job in order to make her primary focus getting this life changing practice to more families and health care providers. She is currently involved in research with the University of Saskatchewan exploring the connection between prenatal hand expression and exclusive breastfeeding at 2 months.

# Universal Access to Health Care in the Age of Litigation: Impacts and Trends of the Litigation in Health Policies

Evandro Antonio Sbalcheiro Mariot, MD<sup>1,2</sup>

1. University of Porto Faculty of Medicine, Portugal

2. Professor of the Postgraduate Course in Medicine, State University of Ponta Grossa, Brazil

## Abstract

The right to health is a legal asset linked to life and human dignity. Precisely for this reason it constitutes a universal human right. Recognizing the existence of a human right to health also implies recognizing the existence of a right of access to health care. After all, the mere right to health does not guarantee access to health goods, services and technologies. Instruments and strategies are needed so that people can, in fact, have access to health. It is inferred that there is a guarantee of access to health care when health services are available, meet the needs of the population and are able to effectively solve health problems in general. Health systems and health policies systematically and hierarchically organize access to health goods and services. Both must be focused on good health, responsiveness to the expectations of the population and fairness of the financial contribution that supports the organization. Parallel to the development of health policies, scientific evolution brought the desire for access to what is most modern in health. In this scenario, law, health, public policies, health systems and the availability of health goods and services began to meet in courts. If it is true that, on the one hand, litigation has helped to confer degrees of effectiveness on access to health goods and services, bringing advances in health policies, it is equally correct that it has not been able to ensure a lasting transformation in access to healthcare. Its excessive use not only can generate, but actually did, disproportions and inequalities, compromising the responsiveness of health systems, the aptitude and reach of health policies and distributive justice itself. The literature has been pointing out that the phenomenon of litigation is growing and increasingly impacts health policies. The solution is neither simple nor one-size-fits-all. Understanding the determining factors with implications for the search for the judiciary to ensure access to health is crucial to understanding the difficulties of implementing and guaranteeing universal access to health. Health systems and health policies must be based on principles of individual responsibility, solidarity, equity, distributive justice to ensure access to health both at the individual and collective levels. Evidently, this also depends on funding and the unquestionable finitude of resources. The excess of judicial sentences has created a supremacy of individual demand over the interests of the community. The balance for making judicial decisions based on proportionality and reasonableness must meet the principles of equity and distributive justice, be consistent and consider relevant scientific and ethical factors.

Declaration of interest statement: The author declare that have no conflict of interest and that the ethical principles were followed. Ethics Statement: This presentation complies with ethical standards. Funding: The author did not and will not receive any specific grant from funding agencies in the public, commercial or non-profit sectors to present the lecture.

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## Biography

Professor Evandro Antonio Sbalcheiro Mariot, MD is the Member of the Doctoral Program in Bioethics of the University of Porto Faculty of Medicine, Portugal. He was the former public manager at the city government of Curitiba, Brazil. He is a Medical Doctor specialized in General Surgery, Surgery of the Digestive System and Pancreatic-Biliary Surgery. His current researches include ethics in health systems, health law, health policies, health access and health systems management.

# The Use of Slimpod™ as a Primary Care Weight Management Tool within the NHS

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## Abstract

Obesity threatens population health and strains publicly funded healthcare. This RCT addresses gaps in the literature surrounding unconscious persuasion's uses in weight-loss and weight management. Slimpod – a nine-minute audio listened to daily for a minimum of 12 weeks – is unique. Unlike many traditional prescribed weightloss interventions, it is not a conscious diet and does not require willpower. Using research in “nudge”; thinking, Slimpod retrains an adult's habitual and emotional responses to foodstuffs. This therapeutic model allows unconscious thought to shape instinctive behaviour in a sustainable manner consistent with a healthy lifestyle. Participants have control of their eating behaviours to induce holistic wellbeing. Background: Obesity threatens health and strains publicly funded healthcare, increasingly putting pressure on primary care time and resources. It links to many life-limiting conditions including COVID-19 (Caussy et al., 2020), type 2 diabetes (Mokdad et al., 2003), Alzheimer's disease (Harvey, 2010; Kanoski and Davidson, 2011), cancer (Pan et al. 2004, Renehan et al., 2008) and heart disease (Lu et al., 2014). Primary care is ideal for weight management services, as doctors can use patients' visits to opportunistically screen and encourage them to manage their weight. With Public Health England estimating 63% of the population to be overweight (NHS Digital, 2021) and recent studies showing huge economic impact (NHS Digital, 2021; Okunogbe et al., 2021) , there is a need for weight loss management tool development that can easily be brought into the primary care system. Aims and Methods: To assess the effectiveness of an audio unconscious persuasion weight loss/weight management intervention (Slimpod) compared to an audio relaxation recording (control). 82 overweight adults were randomised to intervention (n=41) and control groups (n=41). Participants' weight was measured at trial commencement, mid-trial (12weeks) and trial end (24weeks) periods. Secondary outcomes used the Eating Self-Efficacy Scale (ESES), Exercise Confidence Scale (ECS) and Quality of Life Index Generic Version III (QLI-G3) at the start and end of the trial. Results: A statistically significant difference in mean weight loss was found between the intervention group (1.7kg at 12weeks and 4.3kg at 24weeks) versus control (0.6kg and 1.2kg respectively) at p<0.001. ESES scores showed higher self-efficacy (p=0.008) in intervention at 24weeks. No observed significant differences in ESES negative affect sub-scale score or ECS. Conclusion: limpod was effective at reducing weight and increasing eating self-efficacy in overweight adults. Current findings suggest an advantage over currently prescribed treatments within the NHS; Slimpod should therefore be included as part of the suite of interventions offered by healthcare professionals to those seeking to lose weight.

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## Biography

Sandra Roycroft-Davis, from Harley Street, London, is a behavioural change expert specialising in obesity. Using breakthrough research in “nudge” thinking, Sandra commissioned the world's first clinical trials into how the mind can influence weight loss through unconscious persuasion. The results were first presented to the Royal College of General Practitioners in London in 2020. Sandra works with the UK National Health Service, is a member of the UK Parliamentary Group for Obesity and her online Slimpod weight loss programme has changed the lives of over 100,000 people in more than 40 countries.

## **Broad Spectrum Antiviral Prophylactic Medicine(Unani) (BSAPM) to Induce Immunity and Heard Immunity to Prevent the Spread of Novel Corona Virus**

Syed Mujtaba Ali Hashmi

Principal Investigator and Founder, Dr. Hashmi's Unani Medicine Observation and Research Foundation, India.

### **Abstract**

The ancient Greeks believed health was affected by the humors, geographic location, social class, diet, trauma, beliefs, and mindset. The modern research in Hyperglycemia, Derranged Lipids, Fibrosis, Atheroma / atherosclerotic plaques, in some way relate to causes of these disease/disorders, to imbalance of all of any of four humors: blood, phlegm, yellow bile and black bile or the reasons such as diet, trauma beliefs, mindset etc. Thus, the Greek Medicine Systems has scientific and empirical data for treatment of the diseases/disorders that are a cause for public health concern across the globe. There is need for employing modern research and development facilities to explore the Greek Medicine treasure. Covid-19 has been declared as a global pandemic by the World Health Organization. The vaccine for novel Corona Virus is a matter of rigorous research across all the system of medicine in order to save the human life from the epidemic of novel Corona Virus. The concept of Heard Immunity to prevent the spread of novel Corona virus is also a matter of serious study. The literature in Greek (Unani) system of medicine show the use of Broad Spectrum Antiviral Prophylactic Medicine (BSAPM) to induce immunity and Heard immunity against various types of virus infected diseases. The ancient empirical evidence proves that the heard immunity through administration of BSAPM shown that the pandemic called the "Anthonine Plaque" of 165 to 180 AD (Plaque of Galen) was successfully eradicated. Thus, there is a need to take a scientific study of BSAPM (Greek/Unani) to prevent the spread of novel corona virus. This paper deals with BSAPM (Greek/Unani) with comparative study of poly-protein strategy and heard immunity concept, the two experiments widely discussed among the scientific community as a measure to prevent the spread of novel corona virus.

### **Reference**

1. Syed Mujtaba Ali Hashmi. Broad Spectrum Antiviral Prophylactic Medicine (Unani) to Induce Immunity and Heard Immunity to Prevent the Spread of Novel Corona Virus. 2020; SSRN. <http://dx.doi.org/10.2139/ssrn.3593601>

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### **Biography**

Dr. Syed Mujtaba Ali Hashmi is a Practitioner and Researcher in Greek Medicine with twenty five of experience. Greek Medicine is based on humoral theory which assert that good helath comes from a perfect balance of the four humors: blood, phlegm, yellow bile and black bile. Dr. Hashmi's Unanai Medicine Observation and Research Foundation attempts to explore applied aspects of humors touching on controlling the normal functions of the cells. The humoral theory is the basis of the research with an attempt to find the accurate source of virus. The Research Foundation conducted trials by adminstrating Broad Spectrum Antiviral Prophylactic Medicine (BSAPM) to induce immunity and Heard immunity against various types of virus infected diseases including the Corona Virus.

## New approaches for hindfoot pain telerehabilitation

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### Abstract

Nowadays, tele-rehabilitation Technologies, such as smartphone application, web based Technologies, provides opportunities for evaluating and treating patients in clinical setting and during the patients' follow-up progress . To date, many researchers have studied tele-rehabilitation as a home-based program and given that treatment is carried out via regular therapeutic exercises, that are needed to be performed correctly. According to these recent systematic reviews, most systems were primarily created for treatment and education. However, system innovation appears to be different in various domains of health. There are a lot of validity and reliability of smartphone app against UG for various joint motions (the spinal column, knee, and ankle) studies and foot deformity detection tools. However, almost all of the smartphone apps that measure ROM require the integration of the phone to the body and a few of them measure ROM in weight bearing position. Furthermore, due of their accessibility, cost, and simplicity, numerous mobile applications on smartphones are increasingly being used in medical instead of traditional measuring equipment such as UG [193]. In earlier research, the validity and reliability of many smartphone ROM measurement apps were investigated, and they were found to be valid and reliable in measuring ROM in a variety of joints (elbow, knee, and fifth metatarsophalangeal joints). The measurement intra/inter-rater reliability with knee exten-flexed was found as excellent, according to Williams et al., who investigated ankle DF-ROM in weight-bearing using the mobile goniometer app TiltMeter downloaded on a smartphone (ICC 0.8 or more). Two further studies that looked into the use of IOS-based goniometer apps to assess weight-bearing DF-ROM found moderate to outstanding reliability and validity. Weight-bearing DF-ROM assessment utilizing the mobile goniometer software Spirit Level Plus loaded on an Android smartphone had reasonable inter/intra-rater reliability . Why their reliabilities were higher might be explained in a number of ways. Using separate mobile goniometer applications on a different sort of device with a different operating system is the most obvious one that has been documented (Android versus iOS). Another is that apps may impact measurement disparities, and their individual software platforms must be thoroughly tested. Any new version of the app that becomes available should be re-validated.

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### Biography

Dr. Elif Tuğçe Çil is a PhD PT from Biotechnology Program of Yeditepe University. Now, She is working at physiotherapy and rehabilitation department of Yeditepe University as an Assistant Prof. Research areas of her are orthopedic rehabilitation, tele-rehabilitation, e-health, manipulative therapy, electrethreapy.

# **Dental Trauma as a Public Health Issue and the Impact of the Covid Pandemic on the Assessment, Treatment, and Follow ups of Traumatic Dental Injuries**

Zyen Al Rashed B.Med.SC, BDM, MFDRC SI, KBE

Jaber Al-Ahmad Al-Sabah Specialized Dental center, Kuwait

## **Abstract**

Dental trauma is one of dentistry's least researched topics due to its ethical restraint. Despite that, recent efforts have focused on the impact of different approaches to deal with the array of traumatic dental injuries that ensure the best possible outcome. Dental traumatology is taught in most dental schools worldwide; however, there seems to be some degree of fear when treating those patients among dentists. Public awareness regarding the best way to deal with those instances in the first couple of hours to the first couple of days following the traumatic injury still needs improvements. With that said, the current presentation aims to ensure a better understanding of the different classifications of traumatic dental injuries. Knowing how to assess, evaluate, treat, and follow those cases, relying on the most recently accepted guidelines. We will also cover the distinctions between different schools of thought when treating those cases. Finally, we will embark on the impact of the covid pandemic on traumatic dental injuries.

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## **Biography**

Dr Zyen Al Rashed is an endodontist from Kuwait. She completed her bachelor's in medical science in 2013 from Kuwait university Health science center and a bachelor's in dental medicine in 2016 from Kuwait university Health science center. Dr. Zyen received her clinical Doctorate in endodontics in 2022 from the Kuwait board of Endodontics at the Kuwait Institute of Medical Specialization. With that being the first ever to receive the KBE certification. Dr. Al Rashed is currently working in the Ministry of health at Jaber al Ahmad specialized dental center. Her fields of interest are dental trauma as a public health issue, diagnostic terminology in Endodontics, and maxillary sinusitis of endodontics origin.

## Curing Basal Cell Carcinomas without Surgery

Eyal Levit, MD, FAAD, FACMS

Columbia Presbyterian Hospital Department of Dermatology, USA

### Abstract

**Background/Problem:** Today, skin cancer is the most common type of cancer worldwide, with 4.9 million U.S. adults having been treated for skin cancer each year from 2007 to 2011. Of those, 80 percent (3.6 million/year) are basal cell carcinomas. Although the frequency of skin cancer is higher among Caucasians due to the lack of photoprotection provided by melanin, skin cancer remains an important occurrence among dark-skinned individuals. Surgery followed by radiation is the most common modality to treat basal cell skin cancers. Despite our best efforts, these methods can result in significant functional and aesthetic deformity and temporary work disabilities. While Erivedge, Odomzo, and Lbitayo are effective in treating basal cell skin cancers, they fail to provide a cure and the skin cancer recurs within months from the time the hedgehog inhibitor is discontinued. A better method that could provide a high cure rate, reduced side effects, and an easy-to-follow regimen is needed. We present here a ten-year retrospective review of a single doctor's practice using a novel combination of non-surgical therapies to cure large to medium-sized nodular basal cell carcinomas in difficult-to-operate locations. **Objective:** Find a way to utilize the hedgehog inhibitor medications in a safe and effective way to reduce side effects while providing a potential cure for basal cell carcinoma. **Methodology:** From July 2012 to July 2022, a total of 40 patients were treated with a combination of vismodegib and imiquimod. The protocol was modified when it was realized that a lower dosage of vismodegib was as effective in curing patients from basal cell carcinoma. Nodular basal cell cancers—measuring from 10 cm to 1cm in diameter—were treated with this approach. A cure was defined as either a biopsy-verified absence of skin cancer on pathology and or a minimum of a 1-year clinical absence of recurrence of the area. The patients were followed up from 8 years to 1 year after completion of their treatment, revealing an overall cure rate of 90 percent.

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### Biography

Dr. Levit is a board certified dermatologist who completed his residency at Columbia Presbyterian Hospital in 1999. He has received 1 year additional fellowship training at the University of Pennsylvania in Mohs, laser and dermatologic surgery. He has had additional 2 year fellowship in cosmetic dermatology performing and presenting nationally and internationally on procedures from laser resurfacing, liposuction, fat injections, face lifts, blepharoplasty, acne therapy and scar revisions. His last international presentation was in 7/2016 Spain where he was a Key note speaker during the World congress of cosmetic dermatology talking of his inventions in Acne therapy & Blepharoplasty and describing his techniques in nonsurgical nose and face rejuvenation.



## Emergency Department Visits: Non-Trauma Related Dental Conditions

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1. Department of Periodontology, School of Graduate Dentistry, Rambam Health Care Campus, Haifa, Israel

2. Department of Maxillofacial Rehabilitation and Temporomandibular Disorders Unit, School of Graduate Dentistry, Rambam Health Care Campus, Haifa, Israel

### Abstract

**Background/Problem:** Studies of emergency department (ED) visits for non-traumatic dental conditions (NTDCs) have been carried out in the USA and Canada. In Israel, there is a shortage of such studies. In the current retrospective study, we report on the frequency and distribution of NTDCs ED visits at Rambam Health Care Campus (Rambam), in Haifa, which is an academic hospital serving more than 2.4 million residents of Northern Israel. **Objectives:** The aim of the current study is to report on the frequency, and distribution of ED visits for NTDCs at Rambam, during the period from January 2010 to December 2017. **Materials and methods:** The data concerning ED visits at Rambam between 2010 and 2017 were obtained retrospectively from Rambam's computerized clinical and personal database of adult patients ( $\geq 18$  years) visiting the ED for NTDCs. **Results:** Overall, 1.8% of the patients who visited the Rambam ED, were identified as presenting with NTDCs. From 2010 until 2017, the number of NTDCs admissions increased by 45%, while the total ED admissions rose by 16%. The average waiting time for maxillofacial consultations for patients with NTDCs increased from 102 min in 2010 to 138 min in 2017. The busiest hours in the ED for NTDCs were during the morning shifts (47% of daily visits). **Policy Implications/Conclusions:** The results of the study show that systemic and conceptual changes are needed to reduce the number of non-trauma related applications to ED. These changes can be by increasing the number of personnel or by introducing recent advances such as tele-medicine for prescreening of patients. This change calls for a greater involvement of the health policy leaders to provide alternative solutions for emergency dental care.

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### Biography

Dr Leon Bilder is a senior doctor in Rambam Medical Center, School of Dental Medicine, Israel. He had completed his Dental Public Health from the Hebrew University of Jerusalem. His major expertise and interests are Dentistry enthalhygiene Dental Caries Public Health Oral Hygiene Periodontics Dental Public Health Preventive Dentistry Orthodontics

# Evaluating the Efficacy of Lotion Containing Black Rice Bran (*Oryza sativa* L. indica) Extract as Skin Brightening Agent: A Clinical Trial

Afifah K. Vardhani, MD, M.Sc

Indonesian Medical Association for The Development of Traditional Medicine, Indonesia

## Abstract

**Background:** Ultraviolet exposure is an extrinsic factor to initiate melanogenesis, the process of melanin formation in the skin. Nowadays, natural ingredients tend to be more prevalent in cosmetic formulations due to consumers' concern about synthetic ingredients and the risks they may represent for human health. Rice bran, the outer layer of a rice grain, can be utilized as a skinlightening agent. **Objectives:** This study aimed to determine the efficacy of a lotion containing black rice bran (*Oryza sativa* L. indica) ethanolic extract as a skin lightening agent. **Methods:** The black rice bran ethanolic extract was formulated into oil in water (o/w) lotion. In this study, 34 women applied the lotion at one side of the forearm and base placebo lotion as control at the other side of forearm. The results were tested with a paired t-test by GraphPad Prism 8.3.0 software. **Results:** There was a significant decrease in the melanin index and erythema index in the forearm with a lotion containing black rice bran extract (P-value < 0.0001). **Conclusions:** The lotion containing 10% black rice bran extract was effective as a skin lightener because it effectively reduced skin melanin production when applied topically.

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## Biography

Dr Afifah Vardhani is a Medical Doctor, Master of Science in Herbal and Aesthetic Medicine, Currently Studying Medical Education from University of Indonesia.