



THE 2ND WORLD CONFERENCE ON PUBLIC HEALTH 2021



“Leaving No One Behind: A Fundamental Transformation on
Global Action for the Sustainable Development Goals”

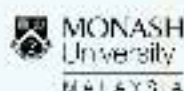
26th - 27th November 2021

Virtual Conference

WCPH 2021

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The 2nd World Conference on Public Health 2021
(WCPH 2021)

26th - 27th November 2021

Committee of the WCPH - 2021

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WELCOME MESSAGE FROM THE CHAIRPERSON



On behalf of the Organizing Committee of WCPH21, I am delighted to welcome you all across the globe to the World Conference on Public Health 2021 (WCPH21), which has the *theme “Leaving No One Behind: A Fundamental Transformation on Global Action for the Sustainable Development Goals”* on November 26-27, 2021 as a virtual conference.

In 2015, 193 countries of the United Nations (UN) adopted a global agreement consisting of 17 Sustainable Development Goals (SDGs) and 169 targets to end all forms of poverty and fight inequalities and discrimination while ensuring that no one is left behind the end of the year 2030. The commitment to “leave no one behind” is a core principle and lightning rod issue for the 2030 Agenda for Sustainable Development. Leaving no one behind” is, above all, ensuring the protection of the human rights of the most vulnerable. People left behind are those most at risk of not enjoying their civil, cultural, economic, political, or social rights. Differently put, being left without education, shelter, social protection, security of tenure, and basic services is a human rights violation. Leaving no one behind involves reaching the most underprivileged, - to “reach the furthest behind first” - and combat discrimination and rising inequalities within a country and their root causes.

The Leave No One Behind Pledge is one of the most revolutionary commitments that the international community has ever made, with the potential to reverse centuries of neglect and mistreatment of excluded groups. However, this potential will only be realized if the Pledge is put into action. To truly implement the leave no one behind agenda, we need to promote an enabling environment for civil society that includes greater investment in subnational initiatives and a power shift towards the poorest of the poor. Within such an environment, civil society will properly connect marginalized populations with different sectors and government branches and implement practical changes. Civil society is uniquely placed to engage simultaneously in multiple functions that are key to the SDGs (engagement, advocacy, accountability, and implementation), at multiple levels (local, national, regional, and global) and on multiple fronts (with the public, the media, governments, and the corporate world).

WE need to create a *just, equitable, tolerant, open and socially inclusive world* in which the needs of the most vulnerable are met. Without real action, Leave No One Behind is just a slogan!

I hope you find the conference informative and worthwhile and look forward to seeing you again next year’s World Conference in Malaysia. Mabuhay, and God bless us all.

Prof. Dr. Roy Rillera Marzo,

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DIGITAL HEALTH TECHNOLOGIES: THE NEW FACE OF PUBLIC HEALTH INTERVENTIONS AND POLICIES? OPPORTUNITIES AND CHALLENGES

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ABSTRACT

Covid-19 has demonstrated how digital health technologies (DHT) constitute a major part of public health solutions globally. Public Health, defined as “the art and science of preventing disease, prolonging life and promoting health through the organized efforts of society” is facing a new era with rapid technologic developments along with increased globalization. Just as a reminder, public health efforts stretch beyond emergency responses and eradication of specific diseases. Public health efforts address the entire spectrum of health and wellbeing, including the role of broader determinants of health. DHT can facilitate promotion of health, prevention, reduction of injuries, management of chronic diseases and communication with public health and health care professionals. Additionally, DHT facilitated by artificial intelligence (AI) provides predictive models based on big data in real-time for interventions and policies.

However, there are a number of critical questions which need to be addressed regarding opportunities and challenges for DHT. For example, how are the public health services delivery systems equipped to optimally utilize DHT? What are the limitations and barriers to DHT implementation as part of public health interventions? How is current research generating robust evidence related to DHT and public health? How is usability, value, aspects related to legal, privacy, ethics and equity addressed? How are potential biases in AI algorithms managed? How are public health organizations, professionals, and decision-makers prepared for DHT? What policies (at national, international, and global levels) need to be in place for effective regulation, evaluation, and implementation of DHT?

In my presentation, I will critically discuss and reflect on these questions and share some results from our and international research on DHT. I will also reflect on how to place the new face of public health with DHT in future public health research, interventions, and policies.

[02]

LEAVE NO ONE BEHIND: A CALL TO ACTION

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ABSTRACT

The 17 Sustainable Development Goals (SDGs) are the world's best plan to build a better world for people and our planet by 2030. Adopted by all United Nations Member States in 2015, the SDGs are a call for action by all countries – poor, rich and middle-income – to promote prosperity while protecting the environment. They recognize that ending poverty must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, equality and job opportunities while tackling climate change and working to preserve our ocean and forests.

The Covid-19 pandemic has stalled global progress on many of the Sustainable Development Goals (SDGs), including ending extreme poverty by 2030. Inequality is rising and hard-won gains in poverty reduction are being reversed, in rich and poor countries alike. The pandemic has also shone new light on long-standing barriers to progress in reducing inequalities – notably the concentration of persisting deprivations in groups who share certain identities (e.g. age, race or ethnicity, having a disability), places of residence (e.g. remote areas) and/or experiences (e.g. forced migration).

The 'leave no one behind' (LNOB) agenda rose to prominence as the Millennium Development Goal era closed. It was increasingly recognised that concentrating policy on outcomes defined by national averages concealed disparities affecting the poorest groups. The LNOB focus seeks to redress this failure by making progress for these poorest groups central to the realisation of the SDGs. countries pledged through Agenda 2030 'that no one will be left behind ... we wish to see the Goals and targets met for all nations and peoples and for all segments of society. And we will endeavor to reach the furthest behind first'.

[03]

LEFT BEHIND – THE UNFINISHED WORK OF COVID-19 VACCINES

Kim JH

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ABSTRACT

SARS-CoV-2, the etiologic agent of COVID-19, has been responsible for 250 million infections and 5.1 million deaths since January 2020. Despite the rapid development of safe and efficacious vaccines, despite the administration of these vaccines to 50% of the world's population, and despite the manufacture of 2 billion doses of vaccine per month, pandemic spread – initially among immunologically naive persons, but increasingly now among not only the unvaccinated but the previously infected and the vaccinated – whether on the upslope or downslope of the wave of global outbreaks, continues and with the continuation, the generation of new variants. Outbreaks create variants and variants, outbreaks. Breaking the cycle of transmission has proven a daunting task, and failing in this, the likely endemicity of SARS-CoV-2 and continued spawning of new variants. The task then remains – prepare for the next surge while dealing with the current one: 1) track the current outbreak and emergence of variants; 2) vaccinate (primary and booster); 3) strengthen non-pharmacologic interventions; 4) develop the next generation of vaccines; 5) strengthen global systems for equitable and rapid distribution; 6) strengthen health systems to better track, treat and prevent COVID-19 disease. These practical issues are complicated by unanswered scientific questions: 1) is it possible to achieve herd protection; 2) is it possible to prevent infection; 3) will a combination of effective treatment and vaccine-induced prevention further disrupt transmission. While the response to COVID-19 has highlighted the benefits of technology, the failures of the response highlight a failure of leadership and vision. Will effective global health leadership around pandemics, leadership that envisions and implements an expeditious, end-to-end, equitable solution be possible, or will this await an even more catastrophic future event?

[04]

**LOCAL AND GLOBAL PERSPECTIVE ON REDUCING INEQUALITY: A CALL
TO ACTION**

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ABSTRACT

Income inequality is at the heart of UN SDGs (literally) and is behind most of today's global challenges. According to UN estimates, the pandemic will add more pain and increase the average GINI for emerging markets and developing countries by 6%, and they are showing the proportion of refugees more than doubling since 2010 (i.e. 311 refugees for every 100,000 persons). We are facing a perfect storm but rather than idly expecting this to be a matter for governments and the United Nations, each of us individually and intuitionally must make a contribution that really matters. Universities in particular have to make a substantial impact on reducing inequalities locally but achieving global impact is not possible without collaboration. Generating new knowledge through research that underpins education is arguably the key for achieving this. It is therefore imperative for universities worldwide to join forces and develop a global initiative supporting local actions for reducing inequalities. For only by addressing inequalities can we hope to address other major challenges.

[05]

PRECISION MEDICINE: THE WAY FORWARD!

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ABSTRACT

Recent advancements in the precision medicine field have presented a great promise to provide innovative solutions to the pharmaceutical and healthcare industry to help transform medicine. By finding integrated solutions to analyze digital health as well as omics data presents a quick and more accurate method of diagnosing and treating diseases. This talk will focus on highlighting recent advancements in the field of precision medicine.

[06]

PUBLIC HEALTH ON FHIR

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The world is facing significant challenges including increasing multiple chronic conditions prevalence^{1,2} and pandemics. These challenges require multi-prong strategies on inter-disciplinary individualised interventions and transformative public health management. To achieve public health goals of “preventing diseases, promoting health and wellbeing, prolong life, and improve quality of life of the community”, all sectors responsible for public health require access to reusable, meaningful and interoperable information, and use the information to plan and execute effective Prevention-Promotion-Protection strategies. The Pan-American Health Organisation published eight principles of public health digital transformation³. Interoperability is one of the principles.

Digital technology enabled public health transformation requires complex interactions of the following:

- Quality, reusable, accessible data
- Interoperability standards
- Technology maturity
- Organisation and government leadership and strategies

Healthcare has benefited significantly from interoperability standards such as:

- Health Level 7 (HL7) v.2x health data messaging standards (from 1990s)
- Digital Imaging and Communications in Medicine (DICOM) standards (since 1990s)
- Classification standards such as International Classification of Diseases (ICD) version 9 or 10
- Systematic Nomenclature of Medicine – Clinical Terminology (SNOMED-CT) (first release in 2002)

Since 1990s, the complexity of the health care ecosystems has increased exponentially. Interoperability requirements have moved beyond the simply messaging exchanges between providers and payers to multi-stakeholder exchanges of complex health information to support reuse, machine processing and more importantly predictive, prescriptive and advanced AI enabled analytics. The messaging paradigm of HL7 v2.x is no longer adequate to meet these increasingly complex interoperability requirements of the 2020s and beyond.

¹ Hajat C, Stein E. The global burden of multiple chronic conditions: a narrative review *Prev Med Rep.* 2018 Dec; 12: 284–293. doi: [10.1016/j.pmedr.2018.10.008](https://doi.org/10.1016/j.pmedr.2018.10.008)

² PwC. Chronic diseases and conditions are on the rise (<https://www.pwc.com/gx/en/industries/healthcare/emerging-trends-pwc-healthcare/chronic-diseases.html>) accessed 22/08/2021

³ Eight principles of digital transformation of Public Health (<https://www.paho.org/en/information-systems-health-is4h/8-principles-digital-transformation-public-health>) accessed 22/08/2021

The design, development and adoption of complex health information interoperability standards have proven to be extremely challenging. The complexities of requirements agreement and engineering processes to create the HL7 v3 standards were too complex, costly; and the standards extremely difficult to implement. Hence, the journey to develop Fast Health Interoperable Resources (FHIR) as a replacement began in 2012.

This presentation will:

- Explore how FHIR interoperability can contribute to realisation of Public Health goals: supporting interoperable information collection, exchanges, surveillance, prevention, protection, population health improvement;
- Share the speaker's experiences of the FHIR journey since 2012 what some of the challenges (e.g. technical debts, clinical-technical mismatch, FHIR maturity) and lessons learnt.

[07]

TACKLING OUTBREAKS AND PANDEMICS – AFRICA’S NEW PUBLIC HEALTH ORDER

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ABSTRACT

Africa has an estimated population of 1.3 billion people with an aggregate Gross Domestic Product of approximately USD 3.7 trillion. Africa Union’s Agenda 2063 has set Africa’s aspirations for the future, but health security threats present a potential risk to achieve this vision. With population growth, rapid urbanization, climate change, emerging and re-emerging infectious diseases, non-communicable diseases, injuries and mental health, Africa is at a critical juncture in its history. The COVID-19 pandemic has re-affirmed how infectious and other diseases present a grave danger to individual health, economic stability, and state security. The facade of international cooperation and global multilateralism has been shown to be unstable particularly when the whole world is confronted by a shared danger. African countries have found themselves at the end of a long queue, waiting for accessibility to diagnostics, therapeutics, vaccines and nonpharmaceutical health products for COVID-19. This situation is untenable if Africa is to achieve the vision of Agenda 2063. The African Union has therefore adopted “Africa’s New Public Health Order” to address the challenges of the health security agenda on the continent and beyond. This New Public Health Order has four (4) key pillars: (1) strengthening institutions for health emergencies at the continental, regional and country levels, including Africa Centres for Disease Control and Prevention (Africa CDC); (2) strengthening the health workforce; (3) building the local manufacturing industry; and (4) action-oriented and respectful partnerships that are based Africa’s priorities. In conclusion, the ultimate lesson learned during the COVID-19 pandemic is the urgent need for African states to invest in their healthcare systems including the supply chain. Successful implementation of “Africa’s New Public Health Order” is the sustainable way to tackling emerging and re-emerging disease outbreaks on the continent.

Keywords: Africa CDC, Africa, outbreaks, pandemic, public health

[08]

**THE DECADE OF ACCELERATION FOR THE SUSTAINABLE DEVELOPMENT
GOALS: NEED FOR PARADIGM SHIFT IN MANAGEMENT EDUCATION**

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ABSTRACT

While progress is being made in many areas, the total actions required to achieve the SDGs are not yet being taken at the rate or scale that is required. To increase the rate and scale use management education as a powerful tool for achieving sustainable development goals and imbibe the values of responsible citizenship among the young workforce being trained for future. Academic institutions for management education can be placed to lead the cross-sectoral implementation of the SDGs, providing an invaluable source of expertise in research, training, and integrating SDGs in course curriculum of management education – on all areas of the SDGs. Worldwide, some universities have started to come on board with the SDGs, prompted by United Nations supported initiatives such as the Higher Education, Sustainability Initiative, the Principles of Responsible Management Education initiative, and the Sustainable Development Solutions Network. Academic institutions can play a lead role in strengthening the science–policy interface and have the capacity to generate, translate and disseminate knowledge relevant to achieving the SDGs. They can collaborate with policymakers and other stakeholders to identify policy objectives and problems, analyse policy choices, put solutions in place, and evaluate policies. They may also assist in translating the SDGs into quantifiable and country-specific objectives by actively aligning academic capital with public policy priorities and making information and resources available to the government and community. Academic institutions can collaborate with other stakeholders to generate information, resulting to knowledge co-production or co-creation, which has the potential to boost the social effect of research by forming dynamic, locally adaptable partnerships, sharing power, and resolving continuing dispute. To foster experiential learning and translational research, they can participate in reciprocal rotations, secondments, policy fellowships, and internships with the government and community.

[09]

UNIVERSITY OF THE PEOPLE: HIGHER EDUCATION FOR THE 21ST CENTURY

Reshef S

*University of the People, California, USA***ABSTRACT**

University of the People (UoPeople) is the first non-profit, tuition-free, American accredited online university. Dedicated to opening access to higher education globally, UoPeople is designed to help qualified high school graduates overcome financial, geographic, political, and personal constraints keeping them from collegiate studies. The University offers associate and bachelor's degree programs in business administration, computer science, and health science as well as an MBA and a Master of Education (M.Ed.). UoPeople was founded in 2009 and accredited in February 2014. Today, it has over 106,000 students enrolled from more than 200 countries and territories. Roughly 10,500 of these students are refugees. UNESCO estimates that, by the year 2025, there will be nearly 100 million young people seeking seats in universities that don't exist. UoPeople believes that access to higher education can promote world peace and global economic development. As a basic right, higher education can transform not only the lives of students, but also their families' lives, their communities, their nations and, by extension, the world.

UoPeople's Health Science program trains students for careers in healthcare, public health, community organizing, and education. The program takes an interdisciplinary approach, drawing knowledge from many areas of study including public health, healthcare, bioethics, and mental health. Now, more than ever, the world needs skilled public health workers. COVID-19 has generated widespread panic, anxiety, and disruption to daily life around the world. Many colleges canceled in-person classes and scrambled to put programs online. Even in these extraordinary circumstances, University of the People's operations continue without interruption. UoPeople has been delivering high-quality, online, asynchronous courses for over 12 years. The University is the solution for those whose lives and studies have been disrupted due to the coronavirus. UoPeople is building a sustainable new model for higher education, in which students are asked to pay only a \$120 assessment fee at the end of each course (\$240 in the graduate-level programs). For students who might find even these modest fees prohibitive, UoPeople offers a variety of grants. More than 29,000 professionals have volunteered for UoPeople, including those filling key UoPeople leadership positions. UoPeople has collaborations with Harvard Business School Online, NYU, the University of Edinburgh, Effat University, Long Island University and McGill University. 92% of UoPeople graduates are employed, including at such companies as Amazon, Apple, Dell, Deloitte, IBM, Microsoft, and JP Morgan, and institutions such as the UN and the World Bank.

ORAL PRESENTATIONS

[10]

COVID-19 VACCINES WITH EMERGENCY USE AUTHORIZATION – WHAT TO USE?

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ABSTRACT

Background: The earlier studies suggested the association between public health measures against the COVID-19 outcome (Komaroff & Belhouchet, 2021). Within the year of pandemic, six vaccines have been licensed for the emergency use. The global question is how to utilize public health measures and/or vaccination from the perspective of what is good for the population. But first, what vaccine(s) out of six available is(are) safe and effective for the patient. **Question:** If all six new vaccines are available, then which one to use from the perspective of what is good for the patient? **Methods:** Paper review of the phase III clinical trials to compare the risk/benefits of six COVID-19 vaccines approved for emergency use: 1. BNT162b2 (Pfizer-BioNTech) (Polack et al., 2020), 2. Gam-COVID-Vac SputnikV (Gamaleya institute) (Logunov et al., 2021), 3. mRNA-1273 (ModernaTX) (Baden et al., 2021), 4. ChAdOx1 nCoV-19 (AstraZeneca/Oxford University) (Falsey et al., 2021), 5. CoronaVAC (Sinovac Life Sciences, China) (Palacios et al., 2020), and 6. JNJ-78436735 (Janssen Pharmaceuticals Companies of J&J) (Sadoff et al., 2021). Six papers were chosen to compare types and technologies, study populations (inclusion/exclusion), study conducts, methodology and results of efficacy and safety of Phase III studies (Polack et al., 2020; Logunov et al., 2021; Baden et al., 2021; Palacios et al., 2020; Sadoff et al., 2021). **Results:** Six first vaccines were developed using different platforms: vector (2,4 and 6), mRNA-base (1 and 3), and inactivated vaccine (5) that demand different requirements for maintenance and use. SputnikV seems most convenient in maintenance and has reasonable price for a highly effective product. Phase 3 studies: (1) followed International Council for Harmonization and local regulatory requirements that suggest validity of data and results, (2) had differences in selection of study populations; particularly, Pfizer enrolled the most diverse participants by including subjects ≥ 16 years of age healthy or with stable chronic conditions that implies more diverse users; (3) Pfizer, SputnikV and Moderna are the most efficacious 2-dose vaccines with efficacy threshold $>90\%$ after the 2nd dose; (4) SputnikV and Moderna demonstrated possible protective effect from a single dose $>91\%$; (5) safety profiles are available for patients with health concerns, but all vaccines possibly minimize the COVID-19 severity. **Conclusions:** Despite the limitations, this study suggests to health communities and the public how to better understand the risk/benefits of available COVID-19 vaccines for their use.

[11]

CORRELATION OF USA POPULATION DENSITY AND SARS-CoV-2 PANDEMIC MORTALITY AT SIX MONTHS

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ABSTRACT

The aim of this study was to examine what effect population density might have on SARS-CoV-2 (COVID-19)-related deaths and cases for the first six months of the COVID-19 pandemic in the USA. This is in light of evidence that the highest population density regions in the USA were consistently reporting high COVID-related death rates and with knowledge that in the 1918 influenza pandemic higher population density was correlated with greater mortality. This correlational study used publicly accessible records of COVID-19-related death and case rates to plot against population densities of the 50 USA state regions using Epi Info, Version 7.2.4.0, scatter graphs. These were then analyzed for correlation (Pearson's Correlation Analysis) using linear regression. Additionally, population density decile average COVID-19-related death rate comparisons were analyzed using the Epi Info 2 x 2 table calculator for Chi-Square (Mantel Haenzel) with Taylor Series odds ratios. A strong positive correlation [Pearson's $r = 0.7556$, $p < 0.0001$] to population density was noted for deaths by linear regression. Correlation was much smaller for COVID-19 case rates and was limited to population density extremes [Pearson's $r = 0.4162$, $p = 0.06$]. Using population density deciles, the average pandemic-related mortality of the five most densely populated states (New Jersey, Rhode Island, Massachusetts, Connecticut, Maryland) was significantly higher ($p < 0.0000001$) than the least densely populated states (South Dakota, North Dakota, Montana, Wyoming, Alaska) (Odds Ratio = 7.88, [95% Confidence Interval = 6.67-9.72]) with a general dose-response trend observed for all deciles. In the setting of the COVID-19 pandemic in the USA, population density on a state level appears to reliably correlate with COVID-19 deaths independent of other factors. The correlation of population density to COVID-19 case rates was much less profound. In the end, a state's population density is an imperfect measure but still may be the best predictor we have for pandemic deaths and cases and determine which states should be first to receive prevention and mitigation resources early in a pandemic. Lower population density may also act as an inherent social distance proxy-always present but not needing enforcement vigilance.

Keywords: COVID-19, mortality, pandemic, population density, SARS-CoV-2, USA

[12]

COVID-19 IN PREGNANCY - APPROACH TO DIAGNOSIS AND MANAGEMENT

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ABSTRACT

Background & Purpose: COVID-19 is a respiratory viral infection caused by SARS-CoV-2 in the current pandemic which started in the late 2019. This infection often leads to a more serious disease with multi-system involvement. The current pandemic has claimed nearly 5 million lives and countless livelihoods apart from devastating healthcare systems worldwide and causing stagnation of economic growth and changing education forever. The purpose of this review is to explore the prevalence, clinical and management measures to counter this infection in pregnant women. **Methods:** This is a non-systematic/narrative style review of literature. Articles were identified and compiled using the specific terms (“COVID-19” & “pregnancy”) from database of publications (EBSCO). Identified articles (EBSCO-5010 articles) were scrutinized for relevance. An archive of relevant articles was created. They were studied to identify prevalence, disease characters, clinical and management measures to counter this infection in pregnant women. Possible interventions to reduce transmission of this condition is proposed from available information in the literature review. **Results and Conclusions:** There is evidence of a greater severity of COVID-19 among pregnant women compared to matched non-pregnant population particularly in the 3rd trimester. However, fetal anomalies are not increased despite there being a higher rate of preterm deliveries and neonatal ICU admissions. Patient characteristics and co-morbidities that lead to a poorer outcome are identified (FiO₂ <0.35, RR>25 bpm, drowsiness, AKI). Apart from general preventive measures for health care workers, baseline treatment, indications for escalation of treatment, role of assisted ventilation, steroids, prophylaxis for venous thrombo-embolism, antibiotics, tocilizumab (interleukin-6 receptor antagonist), remdesivir (to be avoided), and hydroxychloroquine (not useful) are studied. There is a role for REGEN-COV (monoclonal antibodies casirivimab and imdevimab, administered together) in treatment and post-exposure prophylaxis. Antenatal and postnatal care of pregnant women with COVID-19 including safety of vaccination of pregnant women against COVID-19 and the preferred vaccine types (Pfizer-BioNTech and Moderna) are reviewed.

Keywords: COVID-19, pregnant women, management

[13]

LONG COVID AND REHABILITATION: A LITERATURE REVIEWGrech M^{1*} and Heidler P²¹*Saint Elisabeth University Bratislava, Slovakia*²*Department of Health Sciences, St. Pölten University of Applied Sciences, Austria & Institute International Trade and Sustainable Economy, University of Applied Sciences Krems, Austria*[*michael.grech@fh-krems.ac.at](mailto:michael.grech@fh-krems.ac.at)**ABSTRACT**

Research background shows that since December 2019 the corona pandemic and the measures to contain the SARS-CoV-2 virus have caused substantial economic damage worldwide and generated negative effects on the labor market. The first studies about rehabilitation concluded that the focus should be on pneumological rehabilitation. However, numerous more recent studies show that COVID-19 patients are affected with a highly variable course of the disease and, in addition to the already confirmed negative lung effects, other organ damage – including kidneys, heart, vascular system, muscles, skin etc. – can be observed. There are numerous studies that report up to 205 persistent symptoms after an acute COVID-19 illness. The **aim** of this research is to summarize the latest insights concerning long COVID and rehabilitation, to provide approaches for an effective rehabilitation as well as to make an estimation of needed rehabilitation capacity in Austria. Long COVID includes clinical symptoms occurring during or after an acute infection of at least four weeks – it summarizes the phases of ongoing COVID and the post-COVID syndrome (PCS). The carried-out **method** is a systematic review of the literature about the topics of long COVID and existing knowledge regarding the effective rehabilitation of COVID-19 patients. Additionally, a search about the topics long COVID and rehabilitation in relevant databases is performed. The **results** show the need of rehabilitation of hospitalized patients, but especially of those who has not been hospitalized after a mild course. After the acute infection, some people suffer from shortness of breath, tiredness, and other complaints for months. As several studies have shown, limitations of the lungs as well as consequences on the immune system, heart, nervous system, skin, and kidneys are described. The search in the relevant databases shows that the topics long COVID and rehabilitation are strongly underrepresented and the estimation of needed rehabilitation capacity in Austria shows more than a doubling of the need for rehabilitation compared with the pre-pandemic situation. As **conclusion** the rehabilitation of people with long COVID requires a holistic approach realized with a multidisciplinary rehabilitation, where activities and efforts of individuals from several disciplines are combined – the members of each discipline are working towards their own individual treatment goal for a patient with a small overlap between the team members. Consequently, in addition to the pneumological treatment, which has been identified as a "fixed component", this approach also includes further treatments that are intended to cure the numerous extrapulmonary complications. It is essential that the goals of such a multidisciplinary rehabilitation not only focus on the somatic and psychological areas, but also on the participation-oriented area, so that the performance of the patient for work and for coping with everyday social life is sustainably restored.

Keywords: COVID-19, long COVID, long COVID symptoms, post-COVID syndrome, multidisciplinary rehabilitation

[14]

EVIDENCE-INFORMED POLICY MAKING FOR RESPONDING TO COVID-19 IN GOIAS-BRAZIL

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ABSTRACT

Pandemic disease caused by SARS-CoV-2 already accounts for more than 175 million cases and 3 million deaths worldwide. It's already known that elderly people (65 years of age or older) have a higher risk of dying from COVID-19 when compared to younger individuals; moreover, the presence of comorbidities leads to a higher risk of death. Otherwise, there is still a lot to be clarified about COVID-19 (pathophysiology of the disease, best treatment, best interventions and best time to use them). Farther, there is still no consensus on the impact of the pandemic on vulnerable groups and its relationship with the Human Development Index (HDI) of the municipalities, for instance. In such a challenging scenario, the State Department of Health in Goias-Brazil adopted evidence-informed policy making as a tool to cope with the pandemic. Based on the best available scientific evidence, as well as local, national and international epidemiological data, evidence-generating activities have been prioritized within the local plan for preparedness and response to COVID-19. Until now, 56 Evidence Summaries were produced and publicly available in the official website, providing scientific evidence for guiding decision-making. The relevance of that policy was evaluated by public managers with a questionnaire, which reached a global average of 9.08 points (on a scale from 0 to 10). The Evidence Summaries, in the context of the pandemic, were used by the state's health managers of Goias as a powerful tool for guiding decision-making, and also as a basis for formal procedural and legal responses.

Keywords: evidence-informed policy making, public health policy, pandemic, COVID-19

[15]

**EPIDEMIOLOGICAL STUDY TO ASSESS THE IMPACT OF COVID-19
PANDEMIC ON THE OCCURRENCE OF MONSOON-RELATED DISEASES IN
THE CITY OF MUMBAI**

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ABSTRACT

Background: The onset of monsoon season in Mumbai poses an additional health disease burden in the form of rise of vector-borne and water-borne diseases, such as dengue, malaria, leptospirosis, influenza (H1N1), hepatitis, typhoid, chikungunya and acute gastroenteritis. **Aim:** To assess the impact of COVID-19 pandemic on occurrence of Monsoon-Related Diseases in city of Mumbai. **Objectives:** a) To assess prevalence of monsoon related diseases in Mumbai in last 2 yrs. b) To assess occurrence of monsoon related diseases in Mumbai (till September 2020). c) To find out factors associated with the disparity if any. **Material & Method:** This was a retrospective observational study. Universal sampling was done using secondary data from the Epidemiological Cell of MCGM. Data mining was performed to obtain the trends of the monsoon-related diseases in Mumbai. **Results:** Corona virus cases have been increasing in Mumbai & the administration has been working hard to ensure that the spread is controlled. The cases of Malaria, Dengue, Leptospirosis, AGE, chikungunya, typhoid, viral hepatitis, H1N1 in 2018, 2019, 2020 have been compared. **Conclusion:** All the monsoon related illnesses taken into consideration in this communication have shown a decline in the number of cases in 2020.

Keywords: COVID-19, lockdown, monsoon-related diseases, MCGM, Mumbai

[16]

GLOBAL COVID-19 VACCINE DISTRIBUTION – A CRITICAL LOOK AT THE ISSUES, CHALLENGES, AND STRATEGIES

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ABSTRACT

The COVID-19 pandemic demonstrated that the world as a whole has greater awareness and recognition of how and when a public health crisis occurs. The Covid-19 pandemic has impacted every country one way or another, and in most countries, almost every individual knows someone or the other who was directly impacted by it. Though the most effective way to address a public health crisis is through cooperation and collaboration, this crisis also brought to forefront the vast differences that exist among nations when it comes to tackling and addressing such an epidemic. Hence, there is no doubt that countries should work towards a global cooperation that of which the world hasn't seen in many decades if they want to defeat this pandemic. The year 2021 has set a milestone for this pandemic when several vaccines were approved for distribution and administration in record time. At the same time, it became one of the challenges because there is no universal authority approving the vaccine. On a global level, it is a very fragmented drug approval process and is heavily dependent on government entities that approve such products like the Food and Drug Administration (FDA) in the United States. The differences in clinical trials and standards required by different approval authorities make it even more complicated to determine the efficacy of different vaccines. This is not only a healthcare product development and marketing dilemma but also a healthcare ethics issue. In this presentation, the authors will talk about specific ethical issues pertaining to the COVID-19 vaccine(s) drug distribution and delivery on a global level, with specific examples pertaining to issues and challenges. The authors will also present some of their own perceptions and strategies of how to address this global epidemic more effectively and ethically.

Keywords: vaccine, epidemic, marketing, distribution, ethics, COVID-19

[17]

AWARENESS, KNOWLEDGE, AND INITIATING FACTORS LEADING TO THE USE OF E-CIGARETTES AMONG YOUNG ADULTS IN METRO MANILA

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ABSTRACT

As consumers became more aware of the health risks of tobacco smoking, “healthier” alternatives were sought. In the Philippines, e-cigarette use has been found to be increasing not only for smoking cessation but also for several other reasons. However, this rise to fame of e-cigarettes does not come without any risks. Thus, to contribute to the growing knowledge on this field, this study was conducted to determine the knowledge, awareness, and initiating factors that lead to the use of e-cigarettes among young adults in Metro Manila. Data were drawn from 131 respondents aged 18-30 years old in Metro Manila using a piloted questionnaire. Due to the restrictions brought by the COVID-19 pandemic, the questionnaire was floated online using different social media platforms. Respondents were further categorized whether they are sole e-cigarette users, sole tobacco users, or dual users. Descriptive statistics, analysis of variance, and Pearson Product Moment Correlation were performed accordingly for data analysis. The majority of the respondents were males (57.3%) aged 21-23 (54.2%) who were single (97.7%), unemployed (63.4%), had reached tertiary level of education (76.3%), and earned less than Php 10,000 in a month (56.5%). The respondents showed a moderate perceived level of awareness and knowledge regarding e-cigarettes. It was also found out that there is no significant difference in the awareness and knowledge of respondents when grouped according to their cigarette use. Relevant initiating factors that led to e-cigarette use included: (1) environment friendliness, (2) flavor satisfaction, (3) curiosity, (4) peer/family influence, (5) cheaper alternative, and (6) healthier alternative. No significant correlation was found between the initiating factors and the level of awareness and knowledge. However, a significant low positive correlation was observed between age of respondents and joining the trend as an initiating factor. In conclusion, this study showed that respondents have moderate level of knowledge and awareness towards e-cigarettes. Furthermore, the primary reason for their use of e-cigarettes is due to its environmental friendliness. This study is relevant in the field of public health because understanding the factors that lead young adults to e-cigarette use is vital to further prevent its widespread.

Keywords: E-cigarettes, young adults, Metro Manila, awareness, knowledge, initiating factors

[18]

RELATIONSHIPS AMONG URBAN MORPHOLOGY, MICROCLIMATE AND TB PREVALENCE: IMPLICATIONS FOR SPATIAL PLANNING

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ABSTRACT

WHO has issued a tuberculosis (TB) status report 2020 where Indonesia has risen to second place with the largest number of patients in the world. TB is the fourth highest cause of death in Indonesia overall, and among Indonesians aged 15 to 49 years, it is the number one cause of death by a communicable disease. In 2018, only 568,865 (67 percent) of the 845,000 estimated TB cases were notified. West Java is recorded as the province with the highest number with 26% total TB patients in Indonesia. The number of TB patients also correlates with the provincial environmental quality index (IKLH) with score 49.76, that below the environmental quality threshold in the range of 60-70. Bandung then, taken as a study area, the capital city of West Java province with the largest population in Indonesia. This study emphasizes on prevention and mitigation of the spread of TB through the prevalence of TB mapping. This mapping is based on environmental quality which is described by building density and the quality of atmospheric conditions. The regression on environmental quality based on biometeorology parameter (air temperature, humidity and wind velocity), population and building density toward TB prevalence for each district in Bandung. It then aims to purpose as a pilot project for national programs and strategies on TB health systems and management. Batunggal district is a district with the highest TB prevalence in Bandung, meanwhile, Mandalajati District is a district with the lowest TB prevalence in Bandung. Cibeunying Kidul District apparently as the severe area, the level of vulnerability associated with the highest TB mortality rate. The relationship between densely populated settlements and TB cases can be seen in the short of irradiation duration that less than one hour daily in the urban canyon. Followed by less urban ventilation that in the average at 1m/s.

Keywords: TB, high-dense settlement, microclimate, spatial planning

[19]

THE KNOWLEDGE AND BEHAVIORS OF THAI PEOPLE TOWARDS MARINE ENVIRONMENTAL PRESERVATION

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ABSTRACT

Microplastics contamination to marine life and coastal environment is a significant global issue. Countries that promote tourism will face more problems with extreme garbage accumulation, especially the coastal sites. The waste size is due to density in population and the quality of waste management systems of the country. As Thailand is ranked the world's sixth largest country as a contributor of plastic marine debris, to date still have no concrete national action plan to reduce this problem. The clear public policy and the measures to control the waste disposal behaviors of local Thais and tourists are unknown. This study aims to survey the knowledge, concern about microplastic effects on marine and human life and plastic waste disposal behaviors of Thai people who are local tourists to coastal areas. There are 1016 participants from all regions responding to online questionnaires. The majority of participants were from the central (36%), Bangkok (31%), and Southern (11.4%). The popular beaches are Pattaya, Hua Hin, and Bangsan. Descriptive statistics were used to analyze the data. The results show that Thai people have a knowledge mean score of 11.29 out of 15 (SD 2.85), and behavior mean score of 34.77 out of 45 (SD 3.15). There is a significant relationship between knowledge of microplastics and plastic waste disposal behavior of Thai people ($p < .001$). The knowledge about law and responsibility of plastic waste disposal including the route to get microplastics via drinking and breathing is moderate to low. Thai people show minimal interest in marine environmental preservation activities, especially actively participating in reducing plastic waste on the beach. The Thai government needs to provide public education regarding the related laws and microplastics pollution knowledge to people including supporting the local government especially near the coastal sites to find the strategies and initiate campaign on proper plastic waste disposal behaviors among Thais and tourists.

Keywords: microplastics, pollution, plastic waste disposal, plastic debris, marine environmental preservation

[20]

TO STUDY AWARENESS ABOUT BAN ON SINGLE USE PLASTIC ITEMS AMONG NURSING PROFESSIONALS

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ABSTRACT

Background: The United Nations has defined single-use plastic as items planned to be used not more than one time before they are thrown away or reprocessed. Plastic bags were used for the first time in 1970's and became popular due to their low cost and proximity to use. The gravity of the harmful impact of plastic waste was raised by the Hon'ble Prime Minister of India during the 73rd Independence Day and appealed to the public to make the nation free of single-use plastics and to work in the direction of this responsibility wholeheartedly. **Objective:** We conducted this study for studying awareness regarding a ban on single-use plastic items among Nursing Professionals. **Methods:** It was a cross-sectional study done on nursing professionals across all seniority and from various specialties and super specialty departments. A pretested questionnaire comprising 14 questions was used as a study tool. **Results:** The response rate of our study was 91%. It was observed that 38% of participants were in the 31–40 years age group, 95% were females, 92% were married and 90% were from the urban area. It was found that the mean knowledge score was higher among females, unmarried staff, and respondents with a rural background. **Conclusions:** This study has given insight into various domains where nursing professionals performed well and those where considerable gaps exist. It is recommended that all biomedical waste and general solid waste management training programs should also include training on awareness about single-use plastic ban.

Keywords: Single-use plastic, Health Care Worker (HCW), nursing professionals, knowledge

[21]

A STUDY ON THE EFFICIENCY ANALYSIS OF REGIONAL PUBLIC HOSPITALS IN KOREA USING CCR, AP AND SUPER-SBM MODELS

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ABSTRACT

Background: This study aims to identify the characteristics of public health care institutions by analyzing factors to achieve the efficiency of regional public hospitals in Korea using various data envelopment analysis (DEA) models. Through the study, we develop an evaluation scale to evaluate the effectiveness of public health services performed by each institution and present ways to maximize the efficiency of future health services by evaluating the quality of each hospital's health services. **Methodology:** This study measured and compared each efficiency of the CCR model, AP model, and super-SBM model of DEA from 2018 to 2020 using public data from local medical institutions published by the Ministry of Health and Welfare in Korea. The analysis was conducted using Wilcoxon-Mann-Whitney statistics to identify the difference in efficiency of the super-SBM model by environmental factors. **Results:** First, it showed inefficiency of 20%-22.2% in the Super-SBM model, 17.4%-19.1% in the CCR model, and 10.2%-14.8% in the AP model. The efficiency measurements by the AP model were relatively higher than those measured in the CCR model, as compared with those in the traditional CCR model, AP model, Super-SBM model. Third, differences in efficiency occurred depending on environmental factors such as regional, hospital type, hospital operation type, demand and supply conditions, and the proportion of medical expenses for low-income families. **Conclusion:** It demonstrates the need to approach and analyze variables rather than the general argument that government support should be expanded for publicity. And a more in-depth analysis of external environmental factors that cannot be achieved through efforts to improve the management of regional public hospital is needed to establish a basis for government support standards. In order to solve the inefficiency caused by environmental factors, there are limitations only by independent efforts inside the hospital, and improvements in the policies and systems of the government and local governments should be supported.

Keywords: DEA, regional public hospital, CCR, AP, Super SBM

[22]

**THE ROLES OF HEDONISTIC, UTILITARIAN INCENTIVES AND
GOVERNMENT POLICIES AFFECTING CUSTOMER ATTITUDES AND
PURCHASE INTENTION TOWARDS GREEN PRODUCTS**

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This study aims to evaluate utilitarian and hedonistic motivators affecting customer attitude and purchase intention towards green products. The research question was designed based on the goal of this study - discovering the elements affecting green purchase intention among Georgian customers. Therefore, the main research question is: Do hedonistic, utilitarian incentives and government policies impact consumer attitudes and purchase preference toward green products? Additionally, we attempt to see the relationship between customer attitudes on customer purchase intention. This brings our research to answer the following sub-research question: What is the impact of customer attitudes on customer purchase intention toward green products? According to the research questions, the objectives for this study were formulated to find the relationships between hedonistic and utilitarian incentives and overall purchase intention among Georgian customers: Find ways to measure customer attitudes and purchase intention toward green products; Measure the impact of hedonistic, utilitarian incentives and government policies on customer attitudes and purchase intention toward green products. A deductive and quantitative approach was employed to formulate the research model and test the validity and impact of the constructs. For this study, data was collected from Georgian retail customers. Like many other countries in the region, green products are offered more in Georgia in recent years. As a result, this study aimed to measure the willingness of consumers to purchase green items when shopping. According to Geostat (2020), the country has been fairly stagnant in other environmental statistics, such as renewable energy supply and reducing energy consumption overall, in the past few years. Therefore, elevating customer awareness and green purchase intention can contribute to efficient energy consumption and a step toward an eco-friendly society. A survey of customers in shopping districts using convenience sampling was collected, and the datum was analysed utilising confirmatory factor and regression analyses. The results indicate the positive impact of conditional value, product positioning, societal values, eco-literacy, emotional satisfaction and government policies on customer attitude and purchase intention. The research provides a comprehensive model with regards to green products with extending previous literature and practical implications in sustainable production and marketing.

Keywords: green products, sustainable consumption, decision-making model, green purchase intention, environmental literacy

[23]

ASSESSMENT OF PATIENTS' AND PHYSICIANS' TELEMEDICINE SATISFACTION IN THE PHILIPPINES

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ABSTRACT

Telemedicine has been used as an alternative mode of healthcare delivery even before the COVID-19 pandemic. Due to stay-at-home orders with concern to the current health crisis, telemedicine has become more popular. With this rising popularity came the need to assess the satisfaction of its users. This study aimed to assess the level of satisfaction of patients and physicians with telemedicine and face-to-face consultations. It also aimed to determine if there is a significant difference between the two modes of delivery. Data was collected through convenience sampling for three months via an online survey. The satisfaction of patients and physicians was assessed using two factors: quality of care (QC) and the similarity of telemedicine satisfaction to face-to-face encounters. A four-point Likert scale was employed for patient satisfaction, while a five-point Likert scale was employed for physician satisfaction. A total of 64 patients and 62 physicians participated in the survey. The majority of the patients reported first-time use of telemedicine, while most physicians have used it for a year or less. Both patients ($\bar{x}=3.17$) and physicians ($\bar{x}=2.89$) were perceived to have an overall moderate QC from telemedicine, with both reporting that they received the lowest QC from technical difficulties experienced during the consultation. No significant difference was found in the patients' overall satisfaction with telemedicine and face-to-face consultations. Patients preferred face-to-face consultations for ease of communication and telemedicine for time efficiency. On the other hand, physicians reported a significant difference between telemedicine and face-to-face consultations, choosing the latter. In conclusion, while both patients and physicians reported that telemedicine is an acceptable way to give healthcare services and provide for the patient's healthcare needs, telemedicine still cannot replace face-to-face consultations due to its limitations and can only complement it. These limitations include difficulties in physical assessments, lack of a government agency or committee, and the slow and unstable internet connection in the country. Determining the patients' and physicians' satisfaction towards telemedicine may serve as a guide to review existing telemedicine policies and insurance coverage. Lastly, this may also look into the viability and application of telemedicine in the post-pandemic society.

Keywords: telemedicine, satisfaction, face-to-face consultation, Philippines

[24]

VIDEOCONFERENCING IN SPEECH AND LANGUAGE PATHOLOGY – RISKS AND CHANCES OF THE USAGE OF TELETHERAPY

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ABSTRACT

Digitalisation in health care offers a great potential to improve health care provision. Telemedicine is supposed to be a promising future model in health care. Due to the pandemic it experienced a significant boom. Among others, speech and language pathologists were affected by the rapid development of teletherapy. This background leads to the research question that underlies this study: What is the contribution of teletherapy in speech and language pathology? The purpose of this research is to examine the general framework of teletherapy, especially videoconferencing within speech and language pathology in Austria. The aim is to analyse the actual usage, attitudes towards and potential future developments of videoconferencing in speech and language pathology. The quantitative research method of an online survey among speech and language pathologists was conducted. All professionals working in Austria were included, regardless of their field of service delivery or professional experience. A total of 118 speech and language pathologists completed the survey. The results show that telepractice is a feasible and satisfying way of delivering speech and language pathology. It has predominantly been used since the outbreak of the pandemic (94% of usage) and is supposed to be used in the future practice of speech and language pathology (72% of therapists). In the survey the usage of teletherapy received the greatest approval as a supplementary, individually selected offer and as an alternative to conventional therapy. Still face-to-face therapy was considered the gold standard, despite overall positive attitudes towards the use of teletherapy. Teletherapy is used more often the younger therapists are and the fewer challenges they experience in applying this service model. In conclusion, there are some essential aspects to consider for the future. To establish telepractice in speech and language pathology in the long term it is necessary to ensure quality and security. There is a need to make improvements in research, training and education, legal guidelines, stable reimbursement policies and technology. Furthermore, the acceptance of teletherapy needs to be increased.

Keywords: speech and language pathology, teletherapy, telepractice, videoconferencing, future, Austria

[25]

**KNOWLEDGE AND PERCEPTIONS OF MEDICAL TECHNOLOGY
PRACTITIONERS IN LUZON ABOUT LABORATORY MANAGEMENT
INFORMATION SYSTEM**

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ABSTRACT

Laboratory information handling is crucial for the integrity of results. Laboratory Management Information System (LMIS) was developed to manage data and facilitate overall workflow in the laboratory while reducing errors. However, many laboratories in the Philippines are not using LMIS. This study assessed the perspective of medical technologists towards future LMIS usage. A cross-sectional study design was used to assess the level of digital literacy of the respondents as well as their knowledge and perception on LMIS. Snowball sampling technique was used to gather data through a piloted questionnaire which was designed to obtain the demographic profile, level of digital literacy, knowledge on LMIS, and perception in using LMIS of the respondents. Data gathering was conducted online due to the pandemic. A total of 108 respondents without prior experience in using LMIS participated in the study which was mostly females (68.50%) and part of the 20-29 years age group (73.10%). Majority are affiliated in a government-owned laboratory (56.50%) with less than five years of tenure in the institution (69.40%). The respondents showed high level of digital literacy (mean: 3.29), moderate level of knowledge about LMIS (mean: 3.25), and high level of overall perception (mean: 2.97). Moreover, it was seen in this study that both digital literacy ($r^2 = 0.796$; $p = <0.001$) and knowledge ($r^2 = 0.872$; $p = <0.001$) have strong positive correlations in their level of perception on using LMIS in the clinical laboratory. However, demographic determinants like age ($r^2 = -0.516$; $p = <0.001$) and years of service ($r^2 = -0.435$; $p = <0.001$) showed moderate and low negative correlations on their level of perception towards the use of LMIS, respectively. Additionally, those working in privately-owned laboratories were also found to have higher levels of perception towards LMIS. The results have major implications not only to companies that offer LMIS, but also to administrative division of laboratories and health government in improving the overall quality in laboratories. The findings suggest that the significant factors must be considered in the system design and in crafting the proper approach to laboratories and/or hesitant workers when adapting LMIS technology.

Keywords: LMIS, information system, digital literacy, laboratory quality

[26]

THE PERCEPTIONS OF PARENTS TOWARD THE IMPACTS OF USING COMMUNICATION DEVICES ON TEENAGER BEHAVIORS

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ABSTRACT

During COVID-19 lockdown, the screen time among children currently exceeds. This study aims to explore the perception of parents toward the impacts of communication device use on the behavior of teenagers. The cross-sectional survey research was conducted online with 542 parents. The results revealed that 53.9% of participants were mothers, 42.8% were fathers (Mean age 43.7 ± 7.794). Most children are in grade 9 (21.8%) (mean age 15.4 ± 1.485). The Parents responded that their child has increasingly used communication devices during the Covid-19 pandemic for online studying (90.4%), chatting (71.2%), searching (69.9%), social media (69.7%), and games (37.1%), respectively. On average, the children use the device 5 - 6 hours a day (71.4%). The parents have noticed that their child has used the devices in prohibited contexts (28.6%) and dangerous situations (10.9%). Their child has behaviors such as immediately responding to alert messages (64.0%), change in sleep pattern (60.7%). Constant checking of the device (52.8%) caused upset when being forced to stop using devices (54.2%), sleeplessness (51.1%), paying less attention to family (38.2%), and decreased academic performance (37.5%). Thus, in the COVID-19 pandemic, the parents should closely monitor their child while using communication devices and encourage them to do more social activities with family.

Keywords: communication device, teenagers, COVID-19 pandemic, online studying, academic performance, behavior

[27]

IMPACT OF THE COVID-19 PANDEMIC ON SOCIAL MEDIA USAGE AND BODY IMAGE AMONG ADOLESCENTS

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ABSTRACT

Due to the evolving pace of technological advancements over the past few decades, increasing screen time on social media has become synonymous with the 21st century lifestyle, with social media acting as the main form of digital communication between individuals. Research suggests that there is an association with the COVID-19 pandemic and heightened social media usage, with the latter appearing to contribute to body dissatisfaction ideals and a strive for thinness in young adolescents. However, few studies have explored the effects of increased social media usage due to COVID-19 on body perception. Therefore, this study aims to explore the association between social media patterns during COVID-19 and changes in body image perception of adolescents. A cross-sectional survey with 200 respondents aged 14-18 in Bangkok, Thailand, was completed which measured social media usage, body image perception, eating habits and exercise patterns. The majority of participants were female (74%), aged 17 years old (63%), and the most frequently used social media app was Instagram, with 81.5% of participants reporting everyday use. Most participants (67.5%) were in the normal BMI range but showed a desire for shape modification (88%). Increased time spent on social media during COVID-19 was related to a clear internalization of the thin body ideal and weight-gain concerns, with 65.5% of users reporting a change in body perception post-pandemic. Participants became more preoccupied with eating and exercise habits they believed would help them achieve a thin body ideal similar to those they observed on social media. Results supported the hypothesis that increased social media usage under COVID-19 conditions acted as a driving force for worsening body image in adolescents. However, further research is needed to establish whether this is a long-term association or just significantly heightened during pandemic conditions as the sample size was quite small.

Keywords: social media, body image, COVID-19, teenagers

[28]

EFFECTIVENESS OF GAME INTERVENTION ON ORAL HYGIENE STATUS AMONG PEDIATRIC CANCER CLIENTS

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ABSTRACT

Research question: Can game intervention help in improving oral hygiene status of ALL Children? Background. Dental caries is a global disease with widespread prevalence, particularly among children. Game-based teaching is an educational strategy that facilitates and reinforces child's learning in a stimulating and dynamic format. **Objectives:** To compare the oral hygiene status in pediatric cancer clients with game intervention and standard care using OHI-S scale **Methodology:** With ethical approval from IEC at TMH. Project no. 3385 and CTRI with registration No. CTRI/2020/02/023599. A Randomized control trial research approach is used in this study to evaluate and compare the effect of game intervention (Snake and Ladder) and Standard care protocol in pediatric cancer clients diagnosed with ALL receiving chemotherapy. The research design adopted for the study is experimental. A study was done with a sample size of 94 pediatric cancer clients diagnosed with ALL receiving chemotherapy at Tata Memorial Hospital. Allocation arms are: Study Arm: Game intervention + Standard care and Control Arm: Standard care. Participants in Arm A (Study arm) will receive Game intervention (Snake and Ladder) and standard care, while receiving chemotherapy. During chemotherapy treatment, game intervention will be given for 10 mins on day 1 and day 7. **Results:** OHI-S index scores were compared over time points at day 1st, day 7th, after 1 month and 2 months. The Mann-Whitney test was carried out and it was found to be not significant at $p < 0.001$ level at day 1 and day 7 and it found to be significant at $p < 0.01$ at 1 month and 2 months among study arm and control arm in pediatric cancer clients. **Conclusion:** Game intervention is effective on oral hygiene status among pediatric cancer clients diagnosed with ALL receiving chemotherapy in a statistically significant manner.

Keywords: dental caries, game intervention, pediatric, ALL

[29]

INTERNET ADDICTION AND ITS DETERMINANTS AMONG MALAYSIAN ADULTS: A CROSS-SECTIONAL STUDY

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ABSTRACT

We live in a world of increasing technology advancements and internet has become a necessity instead of an amenity. With evolving technology and easy accessibility, internet addiction is becoming increasingly common. Many harmful effects on both physical as well as mental health result from internet addiction and early detection is important. This study aimed to identify the prevalence of internet addiction and its determinants among the respondents of Peninsular Malaysia. A cross-sectional study was conducted among 499 Malaysian adults after obtaining the institutional approval for this community project. Data collected from Google form was analysed using SPSS version 23. The questionnaire consisted of sociodemographic components, personal habits including binge eating habit, mental health assessment and assessment of internet addiction. Young's Diagnostic Questionnaire (YDQ) was used to assess the internet addiction in this study. Majority of the respondents were from Penang State, age younger than 25 years, females, and those with tertiary level of education. The prevalence of internet addiction among the respondents was 37.1% (95% CI:32.8%,41.3%). The prevalence of risk behaviours was identified as smoking (6.2%), alcohol consumption (8.6%), drug abuse (1%) and binge eating habit (14.8%). Based on the mental health assessment, the prevalence of depression, anxiety and stressed were shown as 49.7%,49.3% and 24.4% respectively. Multiple logistic regression demonstrated that age, education, and family type were significantly related to internet addiction. Other determinants of internet addiction were binge eating habit, depression, anxiety, and stress. Such vital conclusions are enough to raise an alarm before this problem gains endemic proportion. Educating the society is pertinent and crucial.

Keywords: internet-addiction, binge-eating, depression, anxiety, stress

[30]

SCOPING REVIEW: VERTICAL TRANSMISSION OF COVID-19 FROM PREGNANT WOMAN TO NEONATAL IN ASIA

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ABSTRACT

COVID-19 is a public health problem that occurs worldwide. However, there is not much knowledge about the vertical transmission of COVID-19. Vertical transmission COVID-19, according to WHO, is the mother-to-child transmission of SARS-CoV-2. It can be in utero, intrapartum, or the early postnatal period. The results of research on this matter have different outcomes. An understanding of vertical transmission is needed so that researchers or health workers can immediately prepare to decrease more severe levels of disease. This study aims to determine the possibility of vertical transmission, its mechanism, and the percentage of neonatal experiencing vertical transmission of COVID-19 in Asia. This research is a scoping review that takes three types of studies: case reports, case series, and cohort studies. The total number of articles in this study was 37, with a case series of 2 pieces, a case report of 21 articles, and a cohort study of 14 articles. These articles were obtained through a comprehensive electronic search conducted through Springer Link, Jama, Ovid, Proquest, Pubmed, and Scencedirect from January 2020 to February 2021. There was a total of 534 pregnant women infected with SARS-CoV-2 with 537 of their neonates in Asia. The number of neonates, 28 (5.21%), were positive for COVID-19 based on SARS-CoV-2 RT-PCR from some samples. The samples used to detect the virus were from amniotic fluid, placenta, neonatal umbilical cord blood, vaginal secretions, vaginal swabs, anal swabs, rectal swabs of neonatal and maternal. They also used samples from nasal and oral discharge, nasopharyngeal swab, oropharyngeal swab, pharyngeal swab, throat swab, deep tracheal aspiration, and the neonates' gastric aspiration urine, and feces in neonates, breast milk, and IgM positive serology in neonates. This study concludes that the vertical transmission of severe acute respiratory syndrome 2 can occur from pregnant women with COVID-19 to neonates in Asia.

Keywords: vertical transmission, perinatal, neonatal, COVID-19

[31]

A CORRELATION OF KNOWLEDGE, ATTITUDE, AND PRACTICES OF FILIPINO ADULTS ON HIV/AIDS AND THEIR LIKELIHOOD TO BE TESTED

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ABSTRACT

Human Immunodeficiency Virus (HIV) remains to be a significant public health issue in the Philippines. Since records and studies about HIV in the Philippines are vastly concentrated among men having sex with men (MSM), there is a lack of data on heterosexuals undergoing Voluntary Counseling and Testing (VCT) even though transmission among them is already emerging. Thus, this study aimed to determine the correlation of knowledge, attitude, and practices of heterosexual adults towards HIV/AIDS and their likelihood to get tested. A cross-sectional study recruiting 151 participants from the National Capital Region (NCR), who identify themselves as heterosexuals, regardless of sex, were recruited through purposive snowballing method. Mean and standard deviation were computed to measure the level of knowledge, attitude, and practices. Pearson product-moment correlation was used to determine the correlation between the variables and the likelihood get tested for HIV. Based on the results, the respondents were highly knowledgeable ($x = 3.41$) regarding the generalities of HIV and how it is transmitted. However, results also showed that respondents have only moderate level of knowledge ($x = 2.67$) about antiretroviral therapy as a treatment for HIV. The respondents also showed a highly positive attitude ($x = 3.68$) which suggests that they do not discriminate against a person living with HIV. In terms of practices, respondents showed good practices in preventing HIV infection ($x = 2.97$) but are only moderately likely to get VCT ($x = 3.08$). Moreover, a weak positive correlation was observed on the attitude ($r = 0.36$, $p < 0.001$) and practices ($r = 0.31$, $p < 0.001$) of respondents with their likelihood to get tested, but no correlation was found towards the level of knowledge. In conclusion, determining the factors that affect the uptake of VCT among heterosexuals is also vital to prevent the spread of HIV. This study shows that most heterosexuals are knowledgeable of HIV and have a positive attitude and practices but do not get tested for the infection. Hence, recalibrating strategies to entice heterosexuals to get tested could be essential to capture possible carriers and further reduce transmission of HIV.

Keywords: heterosexual, HIV testing, knowledge, attitude, practices, likelihood

[32]

GENITAL CHLAMYDIA TRACHOMATIS -AN APPROACH TO CONTROLLING A HIGHLY PREVALENT INFECTION

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ABSTRACT

Background & Purpose: *Chlamydia* lacks the synthetic and metabolic processes present in most bacteria and depends on the hosts' energy and synthetic pathways due to which they are obligate intracellular bacterial pathogens. It exists in biphasic stage: extracellular elementary body (infectious) and intracellular reticulate body (vegetative and noninfectious). Genital *Chlamydia trachomatis* (CT) infections are the most common bacterial STI worldwide. The purpose of this review is to explore the reasons for its high prevalence and measures to counter the sexually transmissible form of this infection - genital *Chlamydia trachomatis*. **Methods:** This is a non-systematic/narrative style review of literature. Articles were identified and compiled using the specific terms from databases of publications. Identified articles were scrutinized for relevance. An archive of relevant articles was created. They were studied to identify reasons why chronicity and a high prevalence persist despite availability of effective antibiotic therapy. Possible interventions to reduce prevalence of this condition is inferred and proposed from available information from the literature review. **Results and Conclusions:** This compilation allowed theorising based on different papers studied. The role of host release of interferon gamma (IFN- γ) resulting in the formation of the cryptic form of the organism is discussed. In women, it is a major cause of complications like pelvic inflammatory disease (PID), ectopic pregnancy (EP) and tubal factor infertility (TFI), in men, epididymitis and orchitis and in neonate conjunctivitis and pneumonia. Role of nucleic acid amplification tests (NAAT) compared to other tests is identified. Identifying other clinical forms of this infection, contact tracing, role of antibiotics effective against the cryptic forms of the organism, follow up, prompt treatment of asymptomatic infection, patient counselling, health education, safe sexual practice, possible use of test of cure (TOC) in certain circumstances and recommendations for retesting are explained in detail.

Keywords: *Chlamydia trachomatis*, genital infection

[33]

**BREAST SELF-EXAMINATION AWARENESS IN UNDERGRADUATE
STUDENTS: A MIXED METHOD APPROACH**

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ABSTRACT

In Nigeria, the number of reported cases of breast cancer in women less than 40 years is on the rise with presentations at late stages and poor prognosis. Breast self-examination (BSE) is an important aspect of breast cancer prevention. Our objective was to assess the breast self-examination awareness amongst undergraduate students at a large institution, Obafemi Awolowo University, in Nigeria. We conducted a mixed-method quasi-experimental study. Informed consent was obtained from participants. Participants completed a pre-seminar questionnaire, followed by a seminar on breast health and post-seminar questionnaire. The pre- and post-seminar questionnaires included knowledge, awareness and practice questions. Clinical breast examinations were performed by medical doctors on consenting participants. One-on-one in-depth interviews were conducted on participants who were not part of the seminar using unstructured interview guide. Statistical data was analyzed using IBM SPSS version 24 and ATLAS.ti version 8. A total of 141 participants consented to participate. Of the 141, 113 (80.1%) completed the pre-seminar questionnaire and 127 (90%) completed the post-seminar questionnaire. Of the 113, 87.9% knew about breast cancer, 11.3% had knowledge of the predisposing factors, 94.3% knew about BSE, 46% had examined themselves in the past and 21% aware of correct timing for BSE. Clinical breast exams were conducted on 80 participants who consented. Breast lumps were found in 6/80 (7.5%). 2/6 had excision biopsy, their histopathology reports showing Fibroadenoma. The 4/6 did not follow-up. 14/141 participated in the in-depth interview. Themes identified on knowledge about breast cancer included predisposing factors, treatment, breast examinations and breast screening modalities. Undergraduate students at a large academic institution are aware of breast cancer and breast cancer self-examination, however, they have a poor understanding of breast cancer risk factors and how or when to adequately perform a BSE. Our next steps are to focus on teaching breast cancer self-examinations to undergraduates.

Keywords: breast disease, breast cancer, self-examination, cancer awareness

[34]

**AWARENESS OF MEDICAL STUDENTS ON HUMAN PAPILLOMA VIRUS (HPV)
RELATED DISEASES IN MEN AND HPV IMMUNIZATION FOR MEN**

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ABSTRACT

Purpose: This study is to evaluate the awareness of medical students on HPV-related diseases and HPV immunization in men and women. **Background:** Human papillomavirus (HPV) infection is a well-established, preventable cause of cervical cancer and there is growing evidence of HPV being a relevant factor in male anogenital cancers as well as head and neck cancers. Since 2006, prophylactic HPV vaccines have been made widely available. Malaysia's national HPV immunisation programme was introduced in 2010 for teenage girls. As our students in healthcare represent our future medical professionals, it is important that we assess their awareness and knowledge in order to improve their attitudes towards preventing HPV-related cancers. **Methodology:** We designed and validated a knowledge-based questionnaire regarding HPV and distributed it among Taylors University medical students through WhatsApp. **Results:** There were a total of 132 respondents. 93.3% of respondents have heard of HPV, however only 23.4% were fully aware of the correct modes of transmission. Only 54.7% of respondents were aware that both men and women are at risk of HPV infection. 72% were aware of the HPV-related diseases in women but only 36.4% were aware of the HPV-related diseases in men. While most respondents have heard of the vaccine against HPV infection, only 63.6 % have heard about the vaccine against cervical cancer and only 13% have heard about the vaccine against head and neck cancer. Among female respondents, about 45% were unvaccinated and 25.2% were not even aware of the programme. Of the unvaccinated females, 79% agreed to be vaccinated if offered. Only 37.9% of respondents agreed that men should be vaccinated against HPV. **Conclusion:** While the majority of students have heard of HPV, there is still a lack of knowledge about basic facts regarding HPV and HPV-related diseases in men. A significant proportion of female students remain unvaccinated against HPV despite being the at-risk population. Educational measures are needed to fill these knowledge gaps especially among students in healthcare-related fields.

Keywords: Human Papilloma Virus (HPV), immunization

[35]

BMI, PHYSICAL ACTIVITY AND PHYSICAL PERFORMANCE OF FEMALE NURSES IN HOSPITALS IN BANDUNG DURING COVID-19 PANDEMIC

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ABSTRACT

In Pandemic COVID-19, many health workers, especially nurses working in hospitals, got infected with this virus. Several risk factors might contribute to the COVID-19 pandemic, such as age, hypertension, obesity, and diabetes. During this COVID-19 pandemic, nurses who are primarily women in providing 24-hour service also continue to do shift work. , this shift work can cause changes in metabolism, immunological status, and oxidative status, which will cause inflammation due to changes in circadian rhythms. This study aimed to look at characteristics of female nurse shift, especially about BMI, physical activity, and physical performance of female workers who worked shifts during the COVID-19 pandemic. Methods of this study is a descriptive study about body mass index using measuring height and Weight, Physical Activity using IPAQ, and Physical performance by measuring VO₂max. The results of the survey on 40 nurses who worked at two Hospitals at Bandung, West Java showed, BMI less 1.5%, normal 40%, excess 32.5%, 25% obese, Physical Activity: high 12,5%, moderate 42,5% and low 45%, Physical aerobic capacity (Vo₂max) average 35.15±3.18 with category of vo₂max fair 12,5%, good 57,51, excellent 25%, superior 5%. These results suggested that there might be indirect risk factors for getting infected with COVID-19, such as high BMI and low physical activity among shift female nurses who work in a hospital at Bandung.

Keywords: BMI, COVID-19, nurses, physical activity, physical performance

[36]

**IMPACT ON QUALITY OF LIFE ON CARDIOVASCULAR DISEASE PATIENTS
WHOM FORGET TO TAKE MEDICATION APPROPRIATELY: A COMPARISON
OF UNITED STATES AND SOUTHEAST ASIAN COUNTRIES**

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Background: Cardiovascular diseases (CVD), specifically, ischemic heart disease, remains a top cause of death worldwide. Several factors such as availability, affordability, and quality of CVD medicines influence patient health outcomes, however, medication adoption should be considered a top priority for CVD patients. Research suggests that forgetting to take medication could be a global challenge that prohibits adoption/adherence. Because CVD risk reduction requires modifying several risk factors, multiple medications are often prescribed to patients. Using a fixed-dose combination pill has evidence to support increased medication adherence among CVD patients. However, there is little research available to understand how forgetting impacts medication non-adherence in southeast Asian nations compared to the United States. The aim of this presentation is to enlighten the conference attendees about the factors/predictors that contribute to forgetting to take medications among CVD patients and determine how these factors compare among the United States and Southeast Asian countries. The awareness of these factors can lead to interventions that can increase medication adherence and lead to better quality of life. **Methods:** A meta-analysis of existing literature will be used for the proposes of this research. **Implications of the Research:** Strategies to increase proper medication consumption protocols will be proposed during this presentation. Additionally, the research will suggest several factors that would lead to forgetting to take medications among CVD patients. Factors such as age, gender, employment status, education level, and presence of other diseases likely contribute to forgetting. Factors such as race and religion likely have no statistically significant impact. By increasing medication adherence, CVD patients can have a better quality of life. This is particularly important in southeast Asian countries until fixed dose combination treatments are more widely accessible in those nations.

Keywords: medication adherence, cardiovascular disease, forgetting

[37]

**EYE-HEALTH SCREENING - ASSESSING NEEDS OF THE “LONG-HOUSE”
COMMUNITIES IN EAST MALAYSIA**

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ABSTRACT

The “long-house” is the very center of communal life in East Malaysia. A large population of ethnic minorities who live in longhouses in remote rural areas of Sarawak is ridden with poverty, noncommunicable diseases, accidents and injuries, environmental hazards, and communicable diseases. We conducted a community-based pilot study in three longhouses in Sebauh, Sarawak. to explore the determinants of health status of the Iban community residing in these longhouses. This was an exploratory, cross-sectional study involving residents of the longhouses to assess the unique health needs. The study protocol involved a detailed, validated questionnaire and a range of physical assessments including body weight, height, and blood pressure measurement. Need – based ocular examination of the residents and assessment of visual acuity/ screening for refractive errors, using an auto-refractometer, for school going children was also performed. The prevalence of risk factors, symptoms and diagnosed illness was assessed and the burden of illness was estimated based on the observed relationships and clustering of symptoms and illness within individuals. The social and other determinants of health and their effect on the health status and quality of life were evaluated. Of the 91 school children aged 7 to 12 years screened, there were 49 male and 42 females. 19 (21%) of them had a significant undetected refractive error. The obtained results of community diagnosis were to serve as a foundation for planning health interventions to promote healthy living in this population. The preliminary results of the ocular screening highlight the need for regular screening and referral services for this group of school children.

Keywords: screening, refractive errors, long houses

[38]

**ASSESSING THE VOLUNTARINESS OF UNIVERSITY OF SANTO TOMAS
FACULTY OF PHARMACY STUDENTS TO PARTICIPATE IN COMMUNITY
EXTENSION ACTIVITIES**

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ABSTRACT

This study aimed to assess the factors that motivate the students of the Faculty of Pharmacy to participate in community extension activities. Specifically, the researchers sought to identify and compare the most common factor that motivates students from each course program and year level as well as determine the implications of these factors. The study was conducted to encourage future students to volunteer in community extension activities and to aid the Faculty of Pharmacy in formulating extracurricular activities that would increase the number of students who volunteer. To do this, the researchers disseminated a survey questionnaire to 350 students coming from all year levels and course programs of the Faculty of Pharmacy. The questionnaire was adapted from a previous study conducted by Clary et al. (1998). It consisted of 30 questions which utilized a functionalist approach to volunteering in examining the functional motives of individuals for doing voluntary work in community extension activities. The questions were categorized into 6 functional motives namely, Protective, Values, Career, Social, Understanding, and Enhancement motives. Upon collecting and analyzing the data, the results showed that the most common factors that motivated the Faculty of Pharmacy students to volunteer were Values and Understanding. Students were motivated by their humanitarian concerns and their hunger for knowledge and new sets of skills and abilities. Furthermore, it was observed that the first year and second year students gave significantly higher scores to statements under the Career and Understanding factors as compared to third year and fourth year students. Students from lower year levels use community extension activities to explore different opportunities and expose themselves to different career options while students from higher year levels tend to have more concrete plans for their future and have more academic experience. To further elaborate on the idea of volunteerism in the study, future researchers are encouraged to measure the willingness of the students to participate and identify the motivations of students from other course programs not under the Faculty of Pharmacy. The researchers also suggest exploring the effects of volunteerism to the students as well as the potential advantages and disadvantages that volunteerism may bring.

Keywords: asses, factors, volunteer, community extension activities

[39]

EXPLORING KNOWLEDGE AND ATTITUDES ABOUT VITAMIN D AMONG ADULTS IN SAUDI ARABIA: A QUALITATIVE STUDY

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ABSTRACT

Vitamin D deficiency is widespread in Saudi Arabia. The aim of this study was to explore participants' knowledge about vitamin D and attitudes toward sun exposure. The study also aimed to explore the social and cultural factors that might potentially contribute to vitamin D deficiency in Saudi Arabia. Face-to-face interviews were carried out in the cities of Jeddah and Makkah between May and October 2015. The interview questions were semi-structured, and the data was analyzed using thematic analysis. Study participants showed a reasonable level of knowledge in different areas about vitamin D, including the effect of vitamin D deficiency on bone health and exposure to sunlight as the main source of vitamin D. Participants were also knowledgeable about vitamin D supplements as another source of this vitamin. Nevertheless, there was a shortage of knowledge in relation to dietary sources of vitamin D. In respect to attitudes toward sun exposure, some participants had positive attitudes toward sunlight and were willing to expose themselves to sunlight, but it was restricted to the early morning or late afternoon to avoid the heat. These participants who liked exposure to sunlight were largely exposing only their faces and hands to sunlight. Other participants had negative attitudes toward sun exposure and were avoiding sunlight. Moreover, the study participants identified several barriers to sun exposure, including hot climate, living in high-rise buildings, limited public areas allowing outdoor activities, lifestyle issues such as physical inactivity, and some religious concerns such as wearing the hijab. The study results also demonstrate that females were more enthusiastic about taking actions to improve their vitamin D status in comparison with males. Recommendations for health education interventions that increase awareness about vitamin D sources, especially food sources, are made. Also, educational interventions should focus on increasing awareness about the sufficient time of the day and duration for sun exposure to improve vitamin D status and the importance of the intake of vitamin D supplements as an affordable source to improve vitamin D status. Increasing males' awareness of the benefits of vitamin D is important to encourage them to adopt behaviors to improve vitamin D.

Keywords: vitamin D deficiency, knowledge, attitudes, sun exposure, vitamin D supplements, Saudi Arabia

[40]

**DESCRIPTION OF STRESS DEGREE BASED ON *DASS* QUESTIONNAIRE IN THE
FIRST, SECOND AND THIRD YEAR MEDICAL STUDENTS OF FACULTY
MEDICINE UNISBA DURING THE ONLINE LEARNING PERIOD IN THE
ACADEMIC YEAR 2020/2021**

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ABSTRACT

The world is currently being hit by an outbreak of coronavirus disease or COVID-19. This has caused almost all normal community activities to stop, both in the economic, transportation, health, education and other sectors. The rapid spread of the COVID-19 outbreak has forced every country to act quickly and appropriately to reduce the number of spreads. One of the efforts of the Indonesian government is to make changes to the online learning process policy for all levels of education. At the university level, the implementation of online learning is still a problem that is felt by students and lecturers of the medical faculty, this is because the learning process involves a lot of psychomotor so that it is difficult to do online. Students are required to adapt quickly to different situations and individual circumstances. The high academic burden and demands coupled with this pandemic situation put medical students at greater risk for physical and mental health problems. This study aims to assess the degree of stress experienced by students during online learning. The design of this study used a descriptive observational method with a cross-sectional approach. The total subjects of this study were 187 respondents consisting of first, second and third year medical faculty students who had met the inclusion and exclusion criteria. The assessment of the degree of stress used in this study was the *Depression Anxiety and Stress Scale*. The *Depression Anxiety and Stress Scale* is a questionnaire to assess depression, anxiety and stress. The results obtained from this study indicate that the majority of Unisba medical faculty students fall into the category of normal stress degrees (70.6%). Even so, this needs to be a concern because students who fall into the category of mild, moderate, severe and very severe stress degrees are not small (29.4%).

Keywords: stress, medical student, online learning, COVID-19

[41]

KNOWLEDGE AND ATTITUDES OF HEALTH WORKERS OF PRIMARY CARE FACILITIES TOWARDS CLINICAL HEALTH INFORMATION TECHNOLOGY IN ILOCOS NORTE, PHILIPPINES

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ABSTRACT

Clinical Health Information Technology (HIT) involves technologies intended for the diagnosis, treatment, and evaluation of medical outcomes. It was primarily made to address issues in patient health information management and communication. However, in the Philippines, there is an inadequate number of studies that focus on the perspective of health workers, who are the frontliners in the utilization of Clinical HIT, leading to its low use despite several advantages. This study aims to evaluate the perceived level of knowledge and attitude of health workers of primary care facilities in Ilocos Norte, Philippines regarding Clinical HIT. A self-administered questionnaire was used to assess the perceived level of knowledge, attitude, and willingness of 102 randomly selected health workers towards Clinical HIT. Data gathered were analyzed using descriptive statistics. One-way Analysis of Variance (ANOVA) and Pearson's Correlation were used to determine differences on the respondents' perceived level of knowledge and attitude towards Clinical HIT and its significant relationship with their demographic profile and their willingness to use Clinical HIT. Based on the evaluation, majority of health workers have a moderate to very high knowledge and a positive to a very positive attitude towards the use of Clinical HIT in their respective primary care facilities, which positively influenced their willingness to adopt the technology. It was also found that there is no significant relationship between the perceived level of knowledge of the respondents and their demographic profiles, while there is a strong inverse correlation between the attitudes of midwives towards Clinical HIT and their demographic profile. Moreover, the study had shown that both the knowledge and the attitude of the physicians, as well as the attitudes of nurses and midwives towards Clinical HIT, have positively influenced their willingness to adopt Clinical HIT in their work practice. The findings of this study may be used as a starting point to assess the readiness of health workers concerned with Clinical HIT; this could also assist affiliated sectors and health facilities to direct educational opportunities to improve health service delivery and to maintain and to sustain Clinical HIT.

Keywords: Clinical HIT, primary care, knowledge, attitude, health workers, computer applications

[42]

**EXERCISE-INDUCED LONGEVITY: ACUTE AND CHRONIC IMPROVEMENTS
IN PHYSICAL AND COGNITIVE HEALTH IN OLDER ADULTS FOLLOWING
RESISTANCE TRAINING**

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ABSTRACT

Background: Age-related changes in skeletal muscle mass, strength and power, and other factors influencing muscle quality are significantly related to physical and cognitive functioning losses in older adults. Myokines, signalling proteins released by contracting muscle, reduce systemic inflammation and cancer risk and have been shown to maintain cognitive health. Thus, the exercise-induced release of certain myokines is believed to explain, at least in part, how regular exercise can potentially mitigate cognitive senescence that often occurs with ageing. However, the type of exercise that most effectively benefits brain function, such as load, duration, and frequency, remains to be elucidated. Given that muscle mass is likely related to myokine release during exercise, resistance training is emerging as an effective means to slow the loss of muscular strength, power, and mass with ageing and reduce and even prevent cognitive decline. **Purpose:** This review investigates factors contributing to the age-related loss of muscle strength, power and mass and explains how resistance training, as a non-pharmacologic agent, can maintain physical and cognitive health within an ageing population. **Methodology:** Results from intervention, cross-sectional, and longitudinal studies will be reviewed, significant findings will be provided, and the vital role of exercise-induced myokine signalling in maintaining muscle function, brain health, and overall quality of life in older adults be discussed. **Results:** These findings suggest that resistance training effectively increases muscular strength and cognitive function in older adults. **Conclusion:** This review will show that resistance training has to be considered an essential intervention in the physical activity recommendations for the elderly to maintain proper cognitive and physical functioning and a high level of quality of life.

Keywords: longevity, exercise, cognitive health, inflammation, ageing

[43]

**THE ANTICOAGULATED ELDERLY PATIENT IN GENERAL DENTAL
PRACTICE - CASE REPORTS FROM EVERYDAY LIFE**

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ABSTRACT

The **background** of this work is that anticoagulated elderly patients often face serious problems during dental surgical procedures due to postoperative bleeding. Knowledge of the various anticoagulants with regard to type, mode of action and influences on dental surgical procedures is therefore crucial for the dentist. The **aim** of this work is to ensure safe handling of anticoagulated patients, to create recommendations for dentists so. This leads to professionalism, risk reduction and avoids complications such as post-operative bleeding and wound healing disorders. As **method** in a two-years scientific study the preoperative and postoperative management of dental surgery in patients with vitamin K antagonists and antiplatelet agents (control group) and patients with new direct oral anticoagulants (= NOACs, comparison group) have been compared. Dental surgical procedures were divided into 4 different groups (mild, moderate, severe, series) and compared in terms of preoperative (bridging, consultation with general practitioner, discontinuation of medication) and postoperative management (suture, gelaspon insertion, bleeding plate) for postoperative bleeding and wound healing disorders. The **results** show, the most frequent and severe post-operative bleeding occurs with vitamin K antagonists. NOACs can be managed well if there is state of the art knowledge about them and if there is a professional cooperation with the general practitioner. Moreover, patients need specialized information and education. As the **conclusion**, the knowledge of the various anticoagulants and the involvement of the caregiver or nursing staff is essential for elderly patients.

Keywords: Anticoagulants, pre- and postoperative management, dental surgery, postoperative bleeding

[44]

UNMET HEALTH CARE NEED OF ELDERLY IN MYANMAR: A SCOPING REVIEW

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ABSTRACT

The population aging is a global phenomenon, and Myanmar is not an exception. The proportion of elderly in Myanmar population grows rapidly and Myanmar is predicted to become an aged society in 2030. In future, Myanmar elderly are more likely to be living alone due to fertility decline and out migration of the young generation. Thus, elderly Health care should pay more attention in planning. This scoping review aims to identify the knowledge gap related to elderly situation in Myanmar. Researcher used the Arksey & O'Malley's methodological guideline for searching and selecting relevant previous literature. PubMed, Medline, Ebsco host, Web of Science and open BMJ were searched. Total 18 relevant studies were included in this scoping review. Socioeconomic situation of elderly was very poor. Elderly people living alone were found to have a lower income and lower social economic status than those not living alone. Eleven Studies highlighted the poor health of elderly, prevalence of non-communicable diseases and disability. Only 4 studies mentioned about health seeking behaviour of elderly. Different patterns of unmet health care need were identified in available studies. No study compared the health seeking behaviour and unmet health care need of elderly who live alone and who lived with family. This scoping review identified and recommended unmet need for elderly living alone as necessary topic for future elderly studies.

Keywords: elderly, unmet health care need, living alone, Myanmar

[45]

THE PREVALENCE AND RISK FACTORS OF DYSPEPSIA IN TEENAGERS, BANGKOK, THAILAND

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ABSTRACT

Dyspepsia is a frequent ailment that causes persistent gastrointestinal (GI) discomfort among teenagers due to various aspects. The teenagers are suffering from abdominal pain, distressed feeling, and having a higher incidence of stress, which may result in a substantial decrease in quality of life. The purpose of this research is to determine the prevalence and risk factors for dyspepsia symptoms among Bangkok's teenagers. The Cross-sectional study recruited 421 high school students (grade 10 – 12) in Bangkok, Thailand. An online survey constructed by the researcher was used. Ages, education levels, genders, GPA, GI medical history, incidence of GI symptoms, stress level, eating habit, medical history of *Helicobacter pylori* infection, and commonly used medication were all included in the questionnaires. The majority of participants (65.3%) were female students in Grade 11 (38.0%), and were 16 years old (38.0%) (Mean = 16.18 ± 0.885). 41.1% had a medical history of GI disorders such as gastritis, peptic ulcer, dyspepsia, or gastroesophageal reflux disease. 59.6% reported having dyspepsia symptoms (abdominal discomfort or upset stomach after a meal, frequent belching, and heartburn), whereas 23.8% perceived as having other GI symptoms (abdominal pain, nausea, vomiting, diarrhea). GI symptoms generally began before (43.4%) or during (41.3%) examination periods, during (38.6%) examination times, during (33.2%) and prior to (30.8%) menstruation periods. The correlation analysis of variables associated with dyspepsia symptoms revealed that gender ($p = 0.029$), stress ($p = 0.006$), medical history of GI disorders ($p < 0.001$), and time period of emergence of GI symptoms ($p < 0.001$) were all substantially associated with dyspepsia symptoms. The findings of this research demonstrate that the psychological effect of Bangkok's high school students, particularly stress before and during test times, as well as the overwhelming amount of assignments and homework, is associated with dyspepsia symptoms. Thus, secondary school pupils should be treated for stress-related symptoms on both a physical and psychological level, and equipped with appropriate stress management techniques in order to overcome dyspepsia.

Keywords: Dyspepsia, Gastrointestinal disorder, risk factor, prevalence, high school student, teenager

[46]

**HYGIENE PRACTICES AMONG CHILDREN AGED 2-18 IN DEPOK, INDONESIA
PRIOR TO THEIR COVID-19 INFECTION**

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ABSTRACT

The first case of Novel Coronavirus was discovered first at the end of 2019 and is still a pandemic until now. Each country has declared their own health protocols to be carried out every day, including for children. For instance, Indonesian Pediatric Society recommends children ages 2 to 18 to use a three-ply mask and maintain physical distancing. Although majority of people has claimed to be obedient of the protocols, the number of new cases remains high. Thus, we gathered answers from children that had COVID-19 infection and analyzed hygiene practices they did prior to the infection in Depok, West Java, Indonesia. Using a simple random sampling technique, a descriptive case-control study was conducted. We look further to fifteen variables that have a big impact of a mandatory and specific COVID-19 hygiene practices in Indonesia. The variables collected with interviewer-guided questionnaire were summarized which will then be categorized to poor, fair, good, and excellent. Results showed that within 89 respondents aged 2 to 18, there are 80% children with excellent practices and 18% with good practices. Meanwhile, there are no implementation of fair practices but there are 2% children that did poor practices. Components that may be in an urgent need of a closer look and evaluation, such as using a mask that fits properly, taking a bath as soon as they got home, maintaining physical distancing of two meters minimum, and washing hands after changing masks. In the future, it is also necessary for stakeholders to be aware of the inadvertence of the transmission of the COVID-19 virus especially among children. Specific and targeted prevention will effectively reduce the incidence rate. However, the occurrence of new cases may be hard to diminish if hygiene practices are implemented in an ineffective and incorrect way.

Keywords: COVID-19 infection, children, hygiene practices

[47]

SCHOOL DESIGN FOR CHILDREN WITH DISABILITY: LEAVING NO ONE BEHIND

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ABSTRACT

Education is crucial for the overall growth and development of any individual as it empowers them to make an informed decision, have access to independent living opportunities and better healthcare choices. In India, over 1.7 million primary school-age children do not go to school, and among them, children with disabilities are disproportionately represented. There has been a significant drop-out rate of children with physical disabilities (studying in grades 3-8) due to barriers in built environment, which restrict children's meaningful participation. Although the local government has made efforts to overcome physical barriers to participation for children with physical disabilities (hereinafter referred to as children) by making ramps or adapting washrooms, inclusive education remains a far-fetched dream with community schools' built environment remaining disabling. The way Indian design practitioners (e.g., architects, planners, engineers, contractors) understand physical disability and disability-related design needs, and how such understanding of disability translates to their community school design is not known. Therefore, it is critical to explore the characteristics of a community school's-built environment and design practitioners' experiences in creating such environments. Such knowledge will help to understand how schools might improve the inclusion of children. This research sought to address the question: How can a community school be designed for optimal participation and social interaction of children in Mumbai, India? An exploratory, descriptive qualitative study involved semi-structured 45–60-minute telephone interviews, audio-recorded in Hindi with 15 purposely recruited design practitioners. Each interview was transcribed verbatim in Hindi to minimize error and meaning loss. Subsequently, we employed Braun and Clark's (2006) thematic analysis approach to identify themes. This presentation will discuss Indian design practitioners' attitudes, knowledge, and practices related to inclusive design and with implication to children's participation at school. Understanding disability-sensitive school design for children can inform change in architectural practice and characteristics of community school-built environments to be supportive of children's meaningful participation and social interaction in low-resource settings.

Keywords: children, physical disability, built environment, community school design, participation, social interaction

[48]

EFFECT OF DEMOGRAPHIC CHARACTERISTICS, RELIGIOUS BELIEFS AND ETHNICITY ON ACADEMIC ACHIEVEMENT OF PREGNANT TEENAGERS IN NIGERIA

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ABSTRACT

Background: Demographic characteristics, religious belief, and ethnicity of pregnant teenagers are likely to affect the academic achievement of pregnant teenagers, given the increased rate of school drop-out among pregnant teenagers in Nigeria. **Purpose:** To evaluate the correlation between demographic characteristics, religious belief, ethnicity, and academic achievement of pregnant teenagers in Nigeria. **Methodology:** This was a cross-sectional study of pregnant teenagers between age 15-19 years in Nigeria. A total of 400 pregnant teenagers from all the geo-graphic regions in Nigerian were recruited through a snowball sampling technique. Data was obtained through self-administered questionnaires. Descriptive statistics were applied in testing for frequency, mean and standard deviation. Pearson Correlation Coefficient and Spearman Correlation Coefficient tested for relationship between variables. **Result:** Demographic characteristics of pregnant teenagers (age, level of education, household income and level of education of parents) were significantly correlated with academic achievement of pregnant teenagers. Furthermore, religious belief significantly influenced academic achievement of pregnant teenagers. Similarly, ethnicity had a statistically significant association with academic achievement of pregnant teenagers. **Conclusion:** There is a need for a collaborative effort between the government and stakeholders in Nigeria in facilitating policies that would protect pregnant teenagers from societal stigma. There is also a need to provide school base day-care for pregnant teenagers to alleviate stress associated with pregnancy. Religious and ethnic leaders should act as a medium of creating awareness on the importance of sexual and reproductive health knowledge among school going girls in Nigeria.

Keywords: academic achievement, pregnant teenagers, religious belief, ethnicity, Nigeria, Sub-Sahara Africa

[49]

TOBACCO USE BEHAVIOR AND ORAL HEALTH CONCERN AMONG HIGH SCHOOL STUDENTS

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ABSTRACT

Introduction: The prevalence of tobacco use among teenagers is noticeably increased worldwide. Tobacco use is one of the substantial factors affecting oral health and leads to dental problems. **Objective:** This research aimed to explore the tobacco use behavior among high school students, knowledge and concern regarding oral health and dental problems. **Methods:** A cross-sectional online survey was used. Questionnaire was constructed by researchers consisting of 6 sections: demographic data, oral health care, oral health problems, knowledge regarding tobacco use and oral health problems, tobacco use behaviors, concern of tobacco use and oral health problems (Likert scale 0 – 5). The questionnaire was checked for content validity by experts. The results of reliability are knowledge = 0.835 and concern = 0.973, respectively. **Results:** The research results showed that there were 221 high school students participating in this study. Most of the participants are female students (61.5%), age is between 15 – 20 years old (Mean age is 16.7 ± 1.124) and in grade 11 (44.8%). 40.7% of participants do their dental checkup just only when they have an oral problem. The mean knowledge regarding tobacco use and oral health problems is 6.3 ± 2.060 out of 9 scores. The questions that most of participants answered incorrectly are tobacco use can be the cause of sensitive teeth (30.3%), tartar teeth (49.3%), and dental decay (45.3%), respectively. 11.3% of participants used tobacco products once in the past 30 days. The most types of tobacco products were electronic cigarettes (80.0%) and cigarettes (44.0%). 48% of them use tobacco for 6 months but less than 1 year. The high school students who have tobacco use behavior mostly concerned about bad breath (3.48 out of 5.0), staining of the teeth (3.32), and discoloration of gum, lip, and tongue (3.0), respectively. The correlation between tobacco use behavior and knowledge is significantly negatively related ($p=0.03$). **Conclusion:** High school students have to improve their knowledge regarding tobacco use and oral health problems. Due to the high school students' concern mostly in their appearance, the health care providers should use this information as strategies to reduce the tobacco use behaviors among teenagers.

Keywords: tobacco use behavior, high school students, dental health problem, dental care

[50]

REGULATION OF DRUG PRESCRIBING INFORMATION IN LATIN AMERICA AND THE CARIBBEAN

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ABSTRACT

Objective: To describe the status of drug regulations in force as of May 2021 on the prescribing information of drugs for human use in Latin America and the Caribbean. **Materials and Methods:** A search for regulatory frameworks in force as of May 2021 concerning the registration of prescription drugs in Latin America and the Caribbean was conducted. The documents included were those describing elements of the information targeted at health professionals (e.g., product information/monograph) and patients (insert or leaflet, according to each document). Each regulatory authority's current electronic site was checked to determine if the information of interest for this research was published there, allowing the identification of the terms and concepts regarding this topic for each country. The search was conducted in 25 countries: Argentina, Aruba, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Curaçao, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Sint Maarten, Trinidad and Tobago, Uruguay and Venezuela. A narrative review of the drug regulations in force as of drug regulations effective as of May 2021 allowed the identification of the regulations concerning the prescribing information of drugs in 25 countries in Latin America and the Caribbean for the registration of prescription medications. On this basis, the terms and concepts regarding this topic and the general provisions by the regulatory authorities for these products, applications for health registration and further amendments were identified for each country. **Results:** The Latin American and the Caribbean countries included in the present study manage and regulate the drug prescribing information differently. **Conclusions:** A poor level of harmonization among the studied countries in terms of the content and the management of the prescribing information of medications for human use became evident. In addition, there is a visible lack of standardization of concepts regarding this topic. Likewise, there is no consensus concerning whether the prescribing information for drugs is intended for health professionals or patients. Each country holds its own stand, which might limit access and make understanding difficult, such as different health literacy levels in these societies.

Keywords: prescription drugs, drug regulations, consumer health information, drug labeling, insert, electronic labeling, ePI

[51]

"EQUALITY" IN HEALTH CARE?: THE IMPACT OF DISCRIMINATION ON THE QUALITY OF LIFE IN THE AUSTRIAN HEALTH CARE SYSTEM

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ABSTRACT

The work builds on the background that surveys on discrimination in the Austrian health care system, both at federal and regional level, usually focus exclusively on the patient dimension. A holistic view, which also includes the staff dimension, is hardly ever taken into account. The aim of the survey is to find out whether the experience of discrimination in the Austrian health care system lowers the quality of life of the people affected by it. The topic of discrimination is particularly important for public health. The literature describes serious effects on the quality of life, especially as a result of discrimination experiences in the health care system, such as a decrease in compliance or the non-utilisation of further health care services. However, effects are not only evident for patients, but also for employees in the health sector. Methodologically, the thesis builds on a mixed methods approach and is based on four online focus groups with a total of 19 participants and a partially standardised interview. Taking these results into account, specific questions were subsequently derived for the questionnaire. In addition, the quality of life was surveyed and evaluated using the WHOQOL_BREF, a standardised, established instrument developed by the WHO. A total of 388 evaluable questionnaires were included in the thesis. The results show that the hypothesis can be verified. Discrimination in health care lowers the quality of life. People who have experienced discrimination in the Austrian health system rate their quality of life at 73.1%, which is 6.5 percentage points lower than people without such experiences. The dimensions of mental health with indicators like emotions and environmental factors, which include access to the health care system, show significant differences. In conclusion the topic of discrimination in the Austrian health care system, both from the perspective of patients and staff, is recommended. In particular, there is a lack of studies that shed light on discrimination of and by health care workers. Such studies can contribute to further fields of action in order to identify discrimination triggers, especially among health care staff and to counteract them in a preventive way.

Keywords: healthcare, quality of life, discrimination, equality

[52]

THE CHALLENGES OF INFECTIOUS DISEASE CONTROL IN JAPAN IN TERMS OF FACILITY DEVELOPMENT

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ABSTRACT

Background: More than a year has passed since the outbreak of COVID-19. However, Japanese medical facilities are still struggling to secure beds for the treatment of infected patients. **Purpose:** In this study, we will clarify the current issues regarding facility development for infectious disease control in Japan, and examine the future goals. **Method:** Based on a survey of materials such as literature and an inspection survey of modern hospital architecture preserved as a cultural property, we traced the transition of facilities from the modern era when the hospital was founded in Japan to the present, and clarified the issues. **Results:** The hospitals at the time of its establishment, the buildings were separated and prevented infection among the patients by the distance. Japan has not been threatened by infectious diseases since the early 20th century. This has led to the abolition of specialized hospitals for infectious diseases and a further reduction from ward-based to room-based isolation. As a result of changes in the structure of diseases and the development of building technology and science, hospitals were now taller and some of the wards have private rooms with facilities and equipment. In Japan, which is a universal health insurance system, many medical institutions are operated with medical fees set by the government. The balance between management side and construction costs has prevented the development of facilities in anticipation of an outbreak of infectious diseases pandemic. As a result, it has been difficult to secure beds to accommodate the large numbers of infected patients resulting from the pandemic and to ensure that healthcare workers can work safely and efficiently. **Conclusion:** The outbreak of COVID-19 has reminded us of the necessity to develop facilities for contingencies in our country's medical system. From now on, it is advisable to design the hospitals with highly variable spaces that facilitate zoning and flow line separation and maintain the facilities that can be converted in each region.

Keywords: hospital architecture, pandemic, Japan

[53]

**BARRIERS AND FACILITATORS TO ACCESSING HEALTHCARE SERVICES
AMONG MIGRANT WORKERS IN SOUTHEAST ASIA: A QUALITATIVE
EVIDENCE SYNTHESIS**

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ABSTRACT

Migrant workers are important contributors to economic development and labour in many places across the globe, including Asia. However, they are considered as a vulnerable group and had difficulties to access to health care in the host country. This review aimed to synthesize the barriers and facilitators, seeking to understand the dynamics of factors that shape their access to healthcare services in Southeast Asia (SEA). This systematic evidence synthesis was registered with the International Prospective Register of Systematic Reviews (PROSPERO) (registration number: CRD42021221686). The literature search was conducted by using PRISMA guidelines. CINAHL, Embase, PubMed, PsycINFO, the Cochrane Library, Web of Science, and Index Medicus for Southeast Asia Region were searched from the commence of databases to December 2020. Searches in OpenGrey, the International Labour Organization website, and Google Scholar citation tracking of included studies were done. Thematic synthesis was carried out with qualitative data from result sections of the included studies. A total of 2284 articles were identified, and 16 primary articles were included for synthesis. The included studies were conducted in three countries: Thailand (n=11), Malaysia (n=3), and Singapore (n=2). The study population included both documented and undocumented migrant workers from various countries, including Bangladesh, Botswana, China, Ethiopia, the Gambia, Ghana, Indonesia, Kenya, Mali, Myanmar, Nepal, Nigeria, South Africa, Tanzania, the Philippines, and Zimbabwe. The synthesis revealed four analytical themes: (i) migrant workers' perception of health and healthcare seeking, (ii) employer, healthcare sector, and practical barriers, (iii) facilitators accessing healthcare and (iv) consequences of illness faced by migrant workers. Migrant workers showed positive perspective to health and preventive measures. However, they had concern for their limited health-related knowledge. Diversity of language, economic, socio-cultural factors hampered their treatment-seeking. Migrant workers faced multiple barriers to access to healthcare, including sexual and reproductive health needs. Due to their illnesses, they faced negative impact on their financial, employment, and emotional status. Implementation and provision of migrant-friendly healthcare services might be beneficial to fulfil their needs. Collaboration and coordination with the government and private healthcare sectors, and NGOs is needed to optimize healthcare access and sustainable provision to marginalized migrant workers throughout the SEA.

Keywords: migrants, Southeast Asia, access to healthcare, barriers, facilitators

[54]

EVALUATION OF KNOWLEDGE TRANSFER OF PEOPLE WITH INTELLECTUAL DISABILITIES TO BRIDGE THE KNOWLEDGE TRANSFER IN HEALTHCARE

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ABSTRACT

Research background is that reports of the government state that about 1 percent of the Austrian population is intellectually disabled. Individuals face three major problems within health information and medical treatment. First, most of the written information is hard to comprehend, and therefore, the information is hard to access. Guidelines for easy-to-read language as well as regarding web content accessibility improve access to information and gain more popularity. The second problem is a communication barrier between people with intellectual disabilities and health professionals, which results in a poorer health state of people with intellectual disabilities. Third, people with intellectual disabilities are scarcely included in research in health education. The **aim** of the research is to find ways and methods for knowledge transfer in health-related topics for people with intellectual disabilities. The **research question** is: How does a questionnaire need to be designed to measure knowledge transfer in health-related topics using media technologies with a special focus on people with intellectual disabilities? The **method** consists of literature research and the creation of a website with certain health information, "LUCHS – Gesundheitsinformationen". The resulting questionnaire was composed of two parts: a demographic and a knowledge transfer part. The part regarding knowledge transfer consisted of eight questions of various difficulties. The participants were allowed to use the website to answer the questions and had access to it before as well as while answering the questionnaire. The questions were assigned points according to their level of difficulty ranging between one and three points. Afterward, the ranges for grades were set in order to group the results. For each correct answer, the participants received the assigned points, gaining up to 16 points. The main **results** of the pilot test of the questionnaire are that four subjects got the best grade (16-15 points) and five the second-best grade (14-13 points) with one outlier (9 points). Furthermore, questionnaires need to be adapted to the target group in terms of language, length, and content. Since the target group is very heterogeneous, it might be necessary to create multiple versions of one questionnaire. A pretest should be done in order to determine its validity, reliability, and objectivity. In **conclusion**, questionnaires consisting of closed questions allow determining if participants gained knowledge.

Keywords: knowledge transfer, health information, intellectual disabilities, questionnaire, easy-to-read language

[55]

HOSPITAL DISCHARGES OF MIGRANTS AND CHILEANS BETWEEN 2017 AND 2020: GAPS, TRENDS AND CHALLENGES

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ABSTRACT

Question: What are the main differences in hospital discharges of migrants and Chiles in Chile between 2017 and 2020? **Background:** During the last five years, the migrant population in Chile has almost tripled. In this scenario, the health system has been challenging to rapidly adapt the care provided to this group. Knowing indicators of use of services becomes an opportunity to recognize gaps and adapt health services to the needs of migrants. **Purpose:** To contribute to the current national and international knowledge on the health of the immigrant population. This information will reduce the gaps between local and migrant people in health areas. **Methodology:** Descriptive and secondary study. Data were obtained from the Department of Statistics and Health Information of the Ministry of Health (DEIS) between 2017 and 2020. This database offers the possibility of stratifying the discharges according to nationality (Chilean or foreigner), sex, age, health insurance, number of hospitalizations according to diagnosis. The unit of analysis of this database is the discharge itself, not the patient. Frequency measures were estimated, with a proportion comparison test with a significance level of 0.05%, for age, diagnosis, and days of hospitalization. **Results:** By 2020, 3.8% of total hospital discharges were in migrants, a value that represents double that achieved in 2017 (1.7%). According to sex, hospital discharges in immigrants are primarily in women in the observed years (77.2 - 79.7% migrants; 57.3-59% Chilean women). According to age group and cause of discharge, there are essential differences between the two groups, especially between 15 and 19 years of age, where adolescent pregnancy in migrant women is double that of Chilean women in all the selected years (range 61.4 - 69.0% migrants; 25-33% Chilean women). In the 10-14 years age group, pregnancy, childbirth, and puerperium represent 1% for Chilean women and 4% for migrants. **Conclusion:** During the last five years, there has been an increase in hospital admissions of migrants in Chile. Adolescent pregnancy in the migrant population is a critical condition that requires specific health interventions to reduce the negative consequences on the enjoyment of the human rights of adolescents.

Keywords: migration, hospital discharges, Chile

[56]

THE WRITTEN PRESENTATION OF GENDER ON THE WEB PRESENCE OF AUSTRIAN HOSPITALS UNDER PUBLIC LAW

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ABSTRACT

The **background** of this work is that the perception and management of the dimension of gender, basically diversity management, is particularly important in the health sector, as this has implications for the adequacy of treatment. Companies, as well as hospitals, have the responsibility to take a leading role in socially relevant topics. The **aim** of this study is to determine the status quo of diversity management in the dimension of gender with regard to the written construction of the Internet presence of Austrian hospitals with public rights. The **method** with which the analysis was carried out was according to Mayring's qualitative content analysis with quantitative parts and was based on the collection of the Internet presence of 112 Austrian hospitals. For the survey, the scaling structure according to Mayring (2010) was used. The collected material was processed and analyzed in the analysis tool MAXQDA. The analysis covers a total of 4.646 websites, which were reduced to a total of 1.061 websites in relation to the scope of the master's thesis through clustering and finally analyzed according to their gender construction. The question of how diversity management is implemented in relation to the written construction of the dimension of gender on the websites of Austrian hospitals can be verified as follows: if the document clusters are considered together, the **results** shows that half (51.1%) of the analyzed websites consistently show the use of gender-equitable language. In **conclusion**, with regard to the implementation, it was possible to ascertain that the complete pair form or both genders and the indented I (German: "Binnen-I") were used most frequently in order to represent the dimension of gender fairly. In terms of further research, it would be interesting to look at how the entire list of hospitals in Austria have implemented gender-equitable language in comparison. A closer look at the implementation the consistency of the type of gender-equitable wording, is recommended in order to explore the need for further guidelines and assistance in this regard. In addition, it should be ascertained which personal terms are written in the generic masculine and what effects this has on potential customers of the hospitals.

Keywords: gender-equitable language, gender equality, diversity management, corporate social responsibility, health care

[57]

MULTIMORBIDITY CLUSTERING AND ITS EFFECT ON THE UTILISATION OF HEALTH AND SOCIAL CARE SERVICES IN THE NORTHWEST OF ENGLAND: A RETROSPECTIVE CROSS-SECTIONAL ANALYSIS

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ABSTRACT

Background: Multimorbidity, the co-occurrence of two or more long term chronic conditions within an individual, is a major clinical and public health challenge in the United Kingdom (UK). It is common among the UK elderly as nearly two thirds of the population is affected. Compared to those living in affluent areas, the multimorbidity onset is a decade or two earlier for individuals aged <45 years living in deprived areas. There is also a rising physical-mental multimorbidity burden among this sub-population owing to an increase in the prevalence of mental health conditions, and a strong association between multimorbidity and behavioural lifestyle factors such as tobacco smoking and alcohol consumption. Current studies have mostly examined disease clusters. Cardiometabolic and mental health clusters are the most frequently occurring clusters. Cardiovascular diseases and type 2 diabetes are central to cardiometabolic clusters while anxiety and depression are central to mental health clusters, and mainly affect the older and younger demographic respectively. **Purpose:** The study will examine the effect of chronology on the occurrence of chronic conditions, and how it impacts on the formation of multimorbidity clusters. It will also compare the synergistic effect of socioeconomic status, deprivation and lifestyle behavioral factors on the utilisation of health and social care services within the different multimorbidity clusters. **Methodology:** A retrospective cross-sectional analysis of the St Helens shared care record, an integrated computerized health and social care dataset for the residents of the St Helens borough in the North West of England which is held by the St Helens and Knowsley National Health Service (NHS) Trust, will be undertaken. Cluster identification and analysis will be done using statistical software STATA. The North has been selected as the study setting owing to higher mortality rates and lower life expectancies compared to the South. **Conclusion:** By comparing how socioeconomic status and lifestyle behavioural factors impact on the utilisation of health and social care services among different clusters, findings will enable the tailoring of multimorbidity programs especially for individuals living in deprived areas. Also, findings will examine social care utilisation within multimorbidity management whose evidence base is lacking.

Keywords: multimorbidity, clustering, socioeconomic status, deprivation, health service utilisation, social care utilisation

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[58]

LEST WE FORGET: FRONTLINE STAKEHOLDERS BEAR KEY INSIGHTS ON PARTNERSHIP SUSTAINABILITY

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ABSTRACT

The purpose of this presentation is to present the results of a qualitative study examining implementation partners' reflections on partnership impacts and sustainability related to three complex, five-year public private partnerships (PPP) forged by U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and 3 distinct private partners with the aim of accelerating progress towards HIV/AIDS epidemic control. The study aim aligns with Sustainable Development Goal (SDG) #3- controlling the HIV epidemic and SDG #17-Partnerships for the Goals. Frontline stakeholders involved with the implementation of projects were interviewed by an external evaluation team to explore issues of partnership structure, challenges and project implementation impacts, and to solicit insights on sustainability of subsequent collaborative arrangements. Responses were coded and thematically analyzed using a dual rating approach. Findings suggest that executive level stakeholders must establish more intentional communication mechanisms that articulate partnership goals more clearly and comprehensively throughout the tiers of a PPP ecosystem. Reflections on PPP sustainability indicated partnerships would be enhanced if feedback loops were clearly delineated and management roles ensured equitable in-country partner representation. These measures would ensure that selected intervention strategies and program implementation plans were culturally-sensitive and feasible. Stakeholders shared significant lessons learned and case examples of ways that PPP supported strides made towards reaching HIV/AIDS epidemic control and laboratory system strengthening milestones. Stakeholders overwhelmingly deemed PPPs as positive, necessary, and innovative mechanisms that have resulted in enhanced system-level laboratory capacity, in addition to contributing to a more nimble system which proved to be resilient across diverse operational threats and challenges throughout project cycles. However, stakeholders reflected on ways future PPPs could be optimized to ultimately yield greater time, energy, and resource efficiencies and impacts. Respondents identified formal recognition of their contributions and efforts to be formally recognized by PPP lead organizations. Leaders are poised to gain valuable wisdom that can inform subsequent PPP strategic plans if they act upon the rich lived experiences and reflections shared by seasoned implementation partners on how improved partnership agreements can play an integral role in an ecosystem that leads to sustained impacts and successful advancement of the SDG agenda.

Keywords: public private partnerships, sustainability, laboratory systems

[59]

LUDWIG ANGINA WITH PULMONARY KOCH AND SEVERE ALCOHOLIC LIVER DISEASE WITH ASCITES AND PORTAL HYPERTENSION: A CASE REPORT

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ABSTRACT

A 45 years old male presented with submandibular swelling, breathlessness on exertion, cough with expectoration, difficulty swallowing solids and difficulty in speaking for 4 days. Prior admission to hospital Incision and drainage was performed to remove the submandibular abscess which relieved the dysphagia symptoms and diagnosis of Ludwig's Angina was made. On further investigation, CT neck revealed loculated collection in right submandibular space with surrounding fat stranding, cervical lymphadenopathy, hypodense area with air foci posterior to sternocleidomastoid. Chest X ray revealed multiple homogenous pulmonary opacities in left middle and lower lobe which was later confirmed by CT Chest which revealed area of consolidation with air bronchogram in lingula segments of left upper lobe, few centimetres nodules with interlobular septal thickening in right upper, middle, and left lower lobe suggestive of infectious etiology which was later confirmed by sputum sample which was AFB positive suggestive of tubercular etiology. In addition, USG whole Abdomen was suggestive of hepatomegaly with liver parenchyma changes and moderate ascites. The history, examination and investigations were suggestive of Ludwig's Angina with Pulmonary Koch and Severe Alcoholic Liver Disease with moderate ascites and Portal Hypertension was made. The case was managed well with Incision and drainage of abscess at multiple sites, tracheostomy and feeding tube to relieve obstructive symptoms. The patient is currently under care in ICU in good condition and on parenteral antibiotics to prevent the further spread of abscess. The Antitubercular treatment is started, and isolation is maintained to avoid exposure.

Keywords: Ludwig Angina, Pulmonary Koch, Alcoholic Liver Disease

[60]

THE PROVISION OF REMDESIVIR AND THE DURATION OF HOSPITALIZATION BASED ON COVID-19 PATIENTS GRADE OF DISEASE

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ABSTRACT

Coronavirus disease-19 (COVID-19), a respiratory disease that attacks the whole world, first appeared in Wuhan, China. December 2019, After that, the number of cases increased dramatically in China and many countries around the world. According to recent reports from WHO, Food Drugs Association (FDA), and Centers for Disease Control and Prevention (CDC), no therapies, drugs, or vaccines have been developed and approved to date to prevent and treat SARS-CoV-2 infection. According to WHO, treatment for COVID-19 patients can be used using; remdesivir, lopinavir, ritonavir, chloroquine, and hydroxychloroquine. Remdesivir has been shown to have benefits in improving the clinical manifestations of COVID-19 patients. The first COVID-19 patient in the United States recovered after being treated with remdesivir for pneumonia on day seven of Hospitalization in January 2020. This study aims to analyze whether a relationship between the administration of remdesivir and the duration of Hospitalization for COVID-19 patients at a hospital in Bandung. This research is an observational analytic study using a case-control research design. This research material uses secondary data, namely medical records of COVID-19 patients, totaling 51 patients from each of 2 groups, namely remdesivir and control. The data was taken using the accidental sampling technique. In the remdesivir and control groups, most patients had severe disease, 36 (71%) and 32 (63%). Based on gender, the remdesivir and control groups were equally dominated by males, 32 people (63%) and 29 people (57%). Based on age, in the remdesivir group, the results were mostly 50 years old, 37 people (72.5%). The control group was aged 18-50 years, 27 people (53%). Based on comorbid disease, in the remdesivir and control groups, most patients had comorbidities, with 37 people (72.5%) and 30 people (59%), respectively. Analysis of statistical tests in this study using the Mann Whitney test, which shows the results of the comparison of remdesivir and control (10 days [interquartile range, 8-13 days] vs. (11 days [interquartile range, 8-14 days]; P-Value 0.2436). In conclusion, there is no relationship between the administration of remdesivir and the duration of Hospitalization for COVID-19 patients.

Keywords: COVID-19, remdesivir, length of hospitalization

[61]

RCT: STRIPPING UMBILICAL CORD BLOOD TOWARDS BABY AT BIRTH ON NEONATAL OUTCOME, GROWTH AND DEVELOPMENT THROUGH INFANCY

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ABSTRACT

Can the I-SUC can safely replace DCC? **Background:** New-born blood volume is directly impacted by the timing of cord clamping. **Objectives:** 1. To compares the immediate neonatal outcome of I-SUC towards baby at birth in the interventional group with those of cord clamping in control group. 2 To further compare growth and development outcomes through infancy. **Methodology:** This prospective, time series, randomized, partially blind, interventional controlled study was conducted at MGM Medical College hospital Mumbai, India. Prior approval of the MGMIHS Institutional Ethics Committee was obtained. Inclusion Criteria: Full term newborns with normal vaginal delivery. Protocol: The baby was delivered until the in-tact umbilical cord was milked 3 times in quick succession within 10 seconds experimental group(I-SUC) or was clamped immediately as per the usual unit practice (Control group).268 babies each in the intervention group and control group. **Data analysis:** SPSS version 20. **Results: Immediate neonatal outcomes on Day 1, 2, 3:** Mean APGAR 8.12 at 5 minutes and 8.25 at 15 minutes as compared to the matched control (8.7 and 8.14 respectively). This difference was found to be statically very significant (p<0.002), predicting far better neuro developmental over those in the control group. **PCV:** There was no difference in mean PCV values on day 3 between intervention (Hct-50.5%) and control group (Hct 50.02%). The mean total **serum bilirubin** level in the intervention group was found rather less than those in control group. **Weight:** A significant difference in rate of mean weight loss was noted at end of day-3. **Growth and development at 4-6, 8-10, 12-14weeks; at 6, 9 and 12 months of follow-up.** **Hematocrit:** The PCV level in the intervention group remained much above (40.07%) the control group (35.73%) and nullified the impact of “Physiological anemia” usually expected during 10-12 weeks to 6 months, only in the intervention group. **Conclusion:** The I-SUC can safely replace DCC. The great advantage of consistently higher red-cell mass and hemoglobin level through-out in infancy in intervention group all through, on long term follow up till infancy was considered very encouraging to recommend I-SUC as a universal standard operating procedure.

Keywords: infant, child, adolescent health

[62]

SUPERIOR MESENTERIC ARTERY SYNDROME: DIAGNOSTIC AND THERAPEUTIC APPROACHES

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ABSTRACT

A 30 years male with BMI 16 kg/m² presented to the hospital with chief complaints of recurrent epigastric pain for 1.5 years. Pain was mild, dull and post prandial which required multiple visits to local practitioners. There were episodes of bilious postprandial vomiting with non blood stained vomitus. History of 22 Kg weight loss for 1.5 years present. History of progressive loss of appetite for 1.5 years present. Routine lab investigations were normal. Upper GI endoscopy showed Antral Gastritis with no ulceration. CECT Whole Abdomen showed marked luminal narrowing of the third part of duodenum with aortomesenteric distance decreased to 8mm and aortomesenteric angle being 22 degree. Investigations and clinical features suggested of Superior Mesenteric Artery syndrome. He had tried proton pump inhibitors and postural maneuvers without any improvement in symptoms. After fluid resuscitation and bowel rest, Duodenojejunostomy was planned. Strong's procedure and Gastrojejunostomy were not recommended. Strong's procedure has a high failure rate presumably due to short branches of the pancreaticoduodenal artery not permitting the duodenum to fall inferiorly. Gastrojejunostomy allows gastric decompression but the failure to relieve the duodenal obstruction may result in recurrent symptoms requiring a second procedure. Patient had an uneventful postoperative recovery. Ryles tube was out and oral nutrition was reinstated after 4 days of surgery. There were no wound infections or anastomotic breakdowns. The length of the stay at the hospital was 7 days after surgery. This case emphasises the challenges in the diagnosis of Superior mesenteric artery syndrome and the need for increased awareness of this entity. This will improve early recognition in order to reduce unnecessary investigations and treatments.

Keywords: superior mesenteric artery syndrome, Duodenojejunostomy, Antral gastritis

[63]

SCOPING REVIEW: ORAL SEMAGLUTIDE (RYBELSUS) ON REDUCING HbA1c LEVEL IN ASIANS WITH TYPE 2 DIABETES

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The decrease in HbA1c levels in GLP-1 drugs in patients with type 2 diabetes mellitus was higher than other antidiabetic drugs. However, this drug was previously only available in the form of subcutaneous injection, which made it possible for patients to be disobedient and uncomfortable to take it. In September 2019, the drug, semaglutide oral which belongs to the GLP-1 class, was approved by the FDA. This study aimed to analyze the effect of semaglutide oral on reducing HbA1c levels in patients with type 2 diabetes mellitus in Asia. This research method is a scoping review using a database Science Direct, Springer Link, Pubmed, and ProQuest. The articles reviewed are articles from 2016–2021 which the research design study is Randomized Controlled Trial. The keywords used in the ScienceDirect and Springer Link databases are Oral Semaglutide OR Rybelsus AND HbA1c AND Type 2 Diabetes AND Randomized Controlled Trials, while in Pubmed it is Oral Semaglutide OR Rybelsus AND HbA1c AND Type 2 Diabetes, and in the ProQuest database it is "Oral Semaglutide" OR Rybelsus AND HbA1c AND "Type 2 Diabetes" AND Randomized Controlled Trials. The total number of articles obtained was 1,119 articles, then screening and PICOS analysis were carried out, obtaining eight articles. The results showed that at weeks 26, 52, and 78 the effect of semaglutide oral at a dose of 7 mg, 10 mg, 14 mg, 20 mg, and 40 mg was very significant on HbA1c levels in patients with type 2 diabetes mellitus in Asia. GLP-1 is a natural hormone that can produce more insulin because of its incretin effect when glucose levels are high. Under conditions of hyperglycemia, GLP-1 binds to the GLP-1 receptor and activates pancreatic beta cells and alpha cells in the intestine. Activation of pancreatic beta cells will increase circulating levels of cyclic adenosine monophosphate (cAMP) and increase insulin secretion, while activation of pancreatic alpha cells will inhibit and decrease glucagon production. Thus, this mechanism can control blood sugar levels and may affect a significant decrease in HbA1c levels in the long term.

Keywords: Asia, HbA1c, Oral Semaglutide, Type 2 Diabetes

[64]

**ASSOCIATION BETWEEN HAPPINESS AND PERCEIVED QUALITY OF LIFE IN
A MALAYSIAN B40 URBAN COMMUNITY: A STUDY DURING COVID-19
LOCKDOWN**

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ABSTRACT

In Malaysia, households with a median monthly income of less than RM 4850 constitute the Bottom 40 (B40) communities. The recent COVID-19 pandemic and tumultuous lockdowns have disrupted many lives among the B40 population where their quality of life and happiness have been jeopardized. Therefore, we investigated the association between happiness and quality of life (QoL) among B40 residents in a low-cost urban housing area in Kuala Lumpur, Malaysia. A cross-sectional study was conducted from the 14th of July 2021 till the 23rd of July 2021 among adult residents of PPR Sri Pantai in Kuala Lumpur, Malaysia. Data was collected using a validated Malay version of the Oxford Happiness Questionnaire (OHQ) and World Health Organization Quality of Life – Brief, (WHOQOL-BREF) which were circulated online using Google form. The correlation was calculated between domains of QOL and happiness using partial correlation. Of the 182 participants, the majority were females (83%) and Malays (80.8%). The mean happiness score for OHQ was 4.17 ± 0.68 whereas, for domains of the WHOQOL-BREF, the social domain scored the highest mean score of 65.16 ± 21.05 . Psychological and physical domains showed the strongest positive correlation with happiness, whereas social and environmental domains showed no correlation with happiness. Physical and psychological domains of Quality of Life showed the strongest positive correlation with happiness. Exploring the areas of happiness that correlate with psychological and physical health may help people preserve their well-being during adversities.

Keywords: Malaysian B40 community, quality of life, happiness, COVID-19 lockdown

[65]

**A LONG WAY DOWN: IS THE HOME BIAS AFFECTING THE VACCINE
HESITANCY AND THE WILLINGNESS TO BE VACCINATED IN THE GENERAL
PUBLIC IN GERMANY**

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ABSTRACT

The research background shows that the acceptance of the COVID-19 vaccine plays a fundamental role in combating the pandemic. Vaccine rollouts have started globally. To reach the desirable vaccine coverage and enhance its uptake, it is imperative to assess vaccine hesitancy. There is growing scientific interest to evaluate public attitudes and intention-to-use of individual vaccines against SARS-Cov-2. This study aims to evaluate the willingness to be vaccinated with one of five vaccines in approval proceedings with the European Medical Agency (EMA) at the time. Methodology: A stratified online sample survey was conducted in Germany in April 2021 (n = 435). The survey included 15 items on demographics, vaccination attitude, trust in vaccines, primary source of information regarding the vaccines, fear of adverse effects, and vaccine preference. An exploratory data analysis was used in the collection phase. We compared attitudinal data between demographic groups, and a regression analysis was used to discover underlying factors for vaccine hesitancy. A multiple regression model was used to correlate those factors favouring certain vaccine manufacturers and the primary source of information. The results revealed that despite similar technologies, safety records and efficacy rates, the two novel mRNA vaccines, developed by Pfizer/Biontech and Moderna, gained the highest rates of intention-to-use compared to AstraZeneca, Johnson & Johnson, Gemalaya/Sputnik. In conclusion, governments may be encouraged the support and finance national vaccine research and development, rather than relying on imported vaccines and media and public health officials may emphasize domestic contributions to encourage a greater level of trust and willingness to be vaccinated in the general public.

Keywords: COVID-19 vaccine, public attitudes, vaccine hesitancy, vaccine acceptance, public health, Germany

[66]

**DETERMINANTS OF SUCCESSFUL HUMAN IMMUNODEFICIENCY VIRUS
(HIV) TREATMENT IN KUALA LUMPUR AND PUTRAJAYA: A REGISTRY-
BASED STUDY**

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ABSTRACT

The concept of undetectable equals untransmittable (U=U) urges the importance of maintaining undetectable Human Immunodeficiency Virus (HIV) viral load to prevent HIV sexual transmission, hence suggesting HIV treatment as prevention (TasP) strategy to ensure healthy lives. With the target of 95% of all people living with HIV (PLHIV) know their status, 95% of all PLHIV who know their status on treatment, and 95% of those on treatment are virally suppressed, Malaysia aims to reduce HIV infection by 2030. Immense knowledge on the performance of successful HIV treatment (undetectable HIV viral load) and its determinants is needed, especially in PLHIV-densed Kuala Lumpur and Putrajaya, yet its evidence is limited. A retrospective cohort study was conducted to analyze the newly diagnosed HIV cases reported to the national registries from June 2018 to December 2019. The outcome variable was defined as successful HIV treatment (undetectable HIV viral load, with the cut-off 200 copies/ml viral load one-year post-treatment initiation), coded as Yes/No. The determinants were variables obtained at the point of HIV diagnosis. Logistic regression analysis was used to estimate the crude and adjusted odds ratio (aOR), which reflected the relationship between the determinants and successful HIV treatment. A total of 493 PLHIV was recruited in the analysis. The rate of successful HIV treatment was 0.90 (95% 0.89, 0.94). The PLHIV was predominantly male (474/493, 96.0%), the mean (SD) age was 30 (8.1) years. Simple logistic regression showed that when unadjusted, gender, education level, HIV risk exposure, Tuberculosis and Hepatitis C co-infection, timing of antiretroviral therapy (ART), and healthcare service were significantly associated with successful HIV treatment. The multiple logistic regression revealed two significant determinants - the timing of ART initiation within 6 to 30 days (aOR 3.94, 95% CI 1.32 – 11.70) and implementation of Sexually Transmitted Infection Friendly Clinic, STIFC (aOR 3.40, 95% CI 1.47 – 7.85). Our study shows that Kuala Lumpur and Putrajaya are able to end AIDS by 2030 with the emphasis on U=U concept. We recommend the reinforcement of initiating treatment as early as 30 days from the HIV diagnosis and expanding the STIFC to all other health facilities.

Keywords: Human Immunodeficiency Virus, PLHIV, undetectable HIV viral load, undetectable equals untransmittable (U=U), viral load suppression, differentiated service delivery

[67]

**HIV AND SEXUAL HEALTH EDUCATION: PROVIDING INFORMATION,
EDUCATION, AND COMMUNICATION MATERIALS TO PREVENT HIV
INFECTION AMONG ADOLESCENTS IN RURAL KWAZULU-NATAL, SOUTH
AFRICA**

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ABSTRACT

Background: Reducing HIV incidence and mortality amongst the 10.2 million adolescents living in South Africa (SA), will require increasing demand and uptake of Pre-Exposure Prophylaxis (PrEP), voluntary male medical circumcision and provision of early effective antiretroviral treatment (ART). Using Information, education, and communication (IEC) materials can create demand for HIV prevention technologies but there is limited evidence of their effectiveness in rural SA. Here, we explore the experiences of peer navigator's and the distribution of IEC materials via social network to promote HIV self-testing, PrEP, and ART as part of sexual health education. **Purpose:** To explore the use and impact of the IEC as a strategy to curb HIV incidence among adolescents and young people in the Hlabisa subdistrict, uMkhanyakude, South Africa. **Methods:** Between March and September 2019, qualitative interviews were conducted with 89 purposively selected young males and females aged 18-29 years living in a rural district of KwaZulu-Natal. Participants were selected to capture range of ages and gender receiving IEC material through peer navigator or their social network. Following ethical approval and informed consent, in-depth interviews were conducted using a semi-structured interview guide to explore their experiences of the IEC materials. Data were transcribed, translated, coded manually, and analysed thematically. **Results:** Participants preferred IEC materials compared to oral explanations as it was easier to understand, they felt encouraged to engage with HIV care services and reduced fear and stigma that resulted from communicating with healthcare workers. However, some were "lazy to read" and preferred the peer navigators summarised explanations. Some relied on word of mouth from friends or acquaintances within their social networks to supplement the IEC materials. Participants liked short video clips with key messages regarding HIV prevention that was shared by peer navigators. **Conclusion:** The IEC material was popular with youth but most effective when used alongside peer navigators explanations to promote new HIV prevention technologies such as PrEP and HIV self-testing. Future interventions should diversify IEC materials (i.e., video clips, leaflets, and word of mouth) to appeal to individual's preferred methods of information consumptions.

Keywords: Sexual Health education, IEC materials, HIV prevention, health promotion, health communication, adolescents, South Africa

[68]

A CROSS SECTIONAL STUDY TO ASSESS OCCUPATIONAL STRESS, SLEEP PATTERN AND THEIR ASSOCIATION WITH EMOTIONAL INTELLIGENCE AMONG INFORMATION TECHNOLOGY (IT) PROFESSIONALS IN CHENNAI, TAMILNADU, INDIA

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ABSTRACT

Occupational Stress has a serious impact on any employee's physical, emotional and mental health. Its footprint in any organization leads to an increase in the turnover and can drastically reduce profits. Emotional intelligence is one such weapon which can deal with stress at workplace. In the past few years, Information Technology (IT) professionals have become the victims of occupational stress, due to the fast nature of the job. Being a part of the unorganized sector, IT professionals are always strained with irregular shift timings, unexpected deadlines, work pressure and lack of standard operating procedures. According to the Sustainable Development Goals(SDGs) laid down by the UN/WHO, maintaining health and safety at Workplace(SDG 3.9), protecting the informal sector employees (SDG 8.8) and developing strategies to improve the future of work environment(SDG 16.6) is the need of the hour. This study helps in identifying the lacunae in the recruitment process, the workplace environment of IT professionals and aims at analyzing the association between Occupational stress, sleep patterns and Emotional intelligence among them. **Methods:** A cross sectional study was done among the IT professionals in Chennai area among 480 participants using multi stage sampling methods. **Results:** A Medium level of Occupational stress (37.5%) was found in IT employees in the participants, with majority of them showing low level of emotional intelligence (35%). Moderate level of sleep difficulty (39.2%) was seen among the participants. A significant association was seen between occupational stress with emotional intelligence and sleep pattern (p value<0.001). **Conclusion:** An inverse relationship between Occupational stress and Emotional Intelligence provides the basis for future recommendations to the policy makers and human resource managers to create standard preplacement procedures and assess the Emotional intelligence of the employee, the key to managing stress levels.

Keywords: occupational stress, emotional intelligence, sleep pattern, IT professionals, human resources, work place stress

[69]

**SELF EFFICACY, WORK-LIFE BALANCE AND OCCUPATIONAL STRESS ON
LECTURERS: A CONCEPT PAPER**

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ABSTRACT

Researches on mental health in higher education setting tend to target the students as the subject. Meanwhile, the lecturers are rarely in the spotlight. However, data from International Labor Office (ILO) in 2016 showed that employees in education and health sectors such as lecturers experienced the highest occupational stress, 28,5%. One of the psychological hazards that may cause occupational stress in lecturers is work-life balance, and self-efficacy is one of the factors that can help lecturers maintain the balance. This paper presents a design and plan of our research on the effect of self-efficacy and work-life balance on occupational stress on lecturers in Indonesia. Unlike other self-efficacy researches that use social cognitive theory by Bandura, this study will use Health Action Process Approach (HAPA) theory by Schwarzer as the grand theory. This theory divides self-efficacy into task (motivational) self-efficacy, coping self-efficacy, and recovery self-efficacy. Considering the need for deepening the experience regarding work-life balance and self-efficacy, this study will be conducted with qualitative and quantitative approaches. Qualitative method will be carried out using an in-depth interview, while the quantitative method will be performed by measuring all variables using a questionnaire. This study is expected to provide suggestions and recommendations for policymakers in higher education institutions, especially those related to human resources.

Keywords: self-efficacy, work-life balance, occupational stress, lecturers, higher education

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**THE RESPONSIBILITY OF UNIVERSITIES OF APPLIED SCIENCES TOWARDS
THEIR EMPLOYEES IN TIMES OF PHYSICAL DISTANCING EMPLOYEE
RETENTION IN THE HOME OFFICE**

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ABSTRACT

The background of this work is the outbreak of the COVID-19 crisis in Austria in the first months of 2020. From the beginning, Universities of Applied Sciences were faced with the challenge of transforming their processes within a very short period of time and at the same time with making up for a lack of networking caused by predominantly working from home. The changeover from 'face-to-face' to 'online' teaching, the digitalization of the examination system and admission interviews, and the rescheduling of all information events were major challenges. This resulted in an increased workload, lack of networking, uncertainty among employees, and an enormous increase in communication and leadership needs. The aim of the research question is, to investigate the measures Austrian Universities of Applied Sciences take to fulfil their responsibility towards their employees by ensuring that corporate culture is also part of the home office phenomenon and providing a sense of belonging, which ensures long-term employee retention. Methodologically, a theoretical discussion of the topic is followed by the results of semi-structured expert interviews with those responsible at Austria's Universities of Applied Sciences, which are evaluated qualitatively. The 16 interviews with managers of Universities of Applied Sciences throughout Austria allow conclusions to be drawn about the entire sector - a total of 21 Universities of Applied Sciences. The results involve a combination of different aspects. The interviews showed that the Universities of Applied Sciences have successfully mastered the COVID 19 crisis and, as crisis-resistant employers, offer their employees secure and sustainable jobs. They reacted quickly by adapting the framework conditions, by inclusion and cooperation of all relevant stakeholders and by implementing confidence-building and exchange-promoting measures. This improved their chances of further developing the universities even in the crisis. Due to their social purpose and their status as expert organizations, Universities of Applied Sciences as employers represent a specialty. In conclusion, it can be said that they can be cited as positive examples of participative and employee-oriented corporate cultures. This paper provides recommendations for organizations that want to develop their corporate culture in this direction.

Keywords: corporate culture, CSR, leadership, change, networking, commitment

[71]

QUALITY MANAGEMENT SYSTEMS OR ISO- 9001 CERTIFICATIONS IN EQUINE HOSPITALS: A NECESSARY IMPROVING STEP?

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ABSTRACT

Employees of equine hospitals are daily exposed to a multitude of hazards with potential health implications. In human medicine, the implementation of quality management systems (QMS), or ISO certifications has a positive effect on personnel's safety; however, similar research in veterinary medicine is lacking. The purpose of this research is to investigate the hazards employees of equine hospitals are exposed to, and to examine whether the implementation of a QMS / ISO is associated with a subjectively lower hazard exposure. Secondly the association between an existing QMS / ISO and employees' satisfaction and retention time is investigated. We hypothesized that in larger institutions QMS / ISO would be more common than in smaller hospitals. We also hypothesized that an existing QMS / ISO would be associated with a subjectively lower hazard exposure and a lesser number of detrimental health consequences. It was also hypothesized that employees of hospitals with a QMS / ISO would have longer retention times compared to employees of hospitals without QMS / IOS. To prove or disprove these hypotheses a questionnaire was administered to 450 employees of 13 equine hospitals in Germany. The questionnaire asked information and details about contact with chemical, biological and physical hazards during the last 12 months and during the time of employment. The questionnaire also asked about employees' satisfaction and employment time. The results proved the hypothesized existing perceived exposure to hazards. It was not proved that larger hospitals (>50 employees) were more likely to have a QMS / ISO in place. A significant association was also found between an existing QMS / ISO and longer retention times of administrative staff and management. No significant association was found between an existing QMS / ISO and longer retention time of veterinarians and technicians. Conversely, the association between a QMS / ISO and a lower hazard exposure was not consistently proved. But for some specific hazards an existing QMS / ISO certification results in a higher awareness of their presence. The proved association with longer retention time of managing staff is not necessarily causal in its nature and could be incidental or related to concurrent factors such as hospital size. Overall, QMS / ISO seem to have a positive effect on some, but not on subjective safety in the examined group. Further research is needed to investigate the possible effect of QMS / ISO on more objective parameters such as recorded incidence of occurring accidents.

Keywords: QMS; ISO 9001 certification, equine veterinary praxis, chemical hazards, biological hazards, physical health risks

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OCCUPATIONAL HEALTH AND SAFETY OF FEMALE WORKERS IN THE EUROPEAN UNION - A LITERATURE REVIEW

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ABSTRACT

The **background** of this paper is the importance of occupational safety for both employees and employers. The **aim** of the paper is to raise and analyze the status of the literature on occupational health and safety of female workers in the European Union (EU). Therefore, the following **research question** is addressed: To what extent is occupational health and safety of female workers in the European Union considered in literature? To answer the research question, the **methodology** of a systematic literature review in combination with a meta-analysis was chosen. Based on that, an unbiased summary of the research made about this topic was given. To ensure an unbiased selection of the literature used, the rules and stages of the systematic literature review were followed. Literature with keywords related to occupational safety, female workers, and EU member states was searched in PubMed, Science Direct, and Web of Science databases. Prerequisites for inclusion in the literature review were a study period within the years 2010 and 2021, the languages German or English and, the focus on occupational safety of the female gender. 26 publications were included in the meta-analysis. The **results** show that the literature on occupational safety of women in the EU particularly focused on pregnant women and health care professions. The focus of the literature concerning women's occupational safety is on specific occupational areas. This focus has been identified in the area of health care occupations. Some female-dominated occupations, besides health care, have not been examined by the literature. Regarding the focus on pregnant women it should be emphasized that the focus on this group is primarily about the protection of the unborn children and less about the safety of the working woman. In **conclusion** it can be said that the amount of literature dealing with the occupational safety of women in the EU can be narrowed down to certain factors. In particular, health care occupations and pregnant workers are especially often studied in the literature. Other important gender characteristics of women, like the menstruation or anatomical characteristics, are not considered in the literature included in this review.

Keywords: occupational health and safety, women, equality

[73]

SUSTAINABLE FRAMEWORK FOR HOSPITAL RESPONSE DURING HEALTH EMERGENCIES

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ABSTRACT

COVID-19 pandemic poses overwhelming challenges and strains to the healthcare systems in the world. As this virus is novel, it entails exponentially strained systems and resources of hospitals leading them to challenging dilemmas. This pandemic reveals the hospitals and the healthcare system's vulnerabilities. While the Philippines has made remarkable efforts to respond to this pandemic, but were exhausted given the many healthcare concerns that the department of health sustains apart from this present-day pandemic. Listening to the voices of the hospitals' heads and nurse managers on their strategies to respond to this pandemic drove this study into the fruition of its aim to develop a framework for hospital responses during health emergencies. Triangulation was used in data gathering anchored on Glaser and Strauss and Charmaz's constructivist grounded theory. The process of generating theory involves simultaneous data collection, coding, and data analysis. Movement is inductive minute details of concepts, categories, saturation, and a core category to hypotheses and tentative theories and finally to theory. Adhering adequacy of data for generating a theory, careful analysis, and constant comparison of data, theoretical sampling to enable the saturation of categories, and generating of theory intimately linked to and grounded in the data are imperative for qualitative research. Concurrent collection and analysis of data assure mutual interaction between what is known and what one needs to know. Another verification strategy is theoretical thinking which is a strategy that provides with emerging ideas that are reconfirmed as new data. Documentary analysis, virtual interview using ZOOM, and focus group discussion were used to answer the research questions. A purposive sampling of thirty participants [How they were sampled? Were authors used the method of theoretical sampling as suggested by the grounded theorist? Does saturation achieved?] from hospitals in the three main islands of the Philippines comprised of ten participants from Luzon, ten from Visayas, and ten from Mindanao. In the process of triangulating the data gathered and the simultaneous data analysis, saturation was reached such that the thirty participants were reduced to fifteen only. It was found that hospitals have high level of preparedness for health emergencies. The themes that emerged were morale, operations, infrastructure, and finances. The sustainable framework for the pandemic and other health emergencies is developed with 5-point domain, namely, operations, morale, infrastructure, finances, and innovations.

Keywords: grounded theory, virtual focus group discussion, triangulation, hospital operations, innovations

[74]

**NON-COMMUNICABLE DISEASES AMONG WOMEN IN TRICITY
CHANDIGARH (U.T), INDIA: AN ANALYTICAL STUDY OF RISK FACTORS IN
LOW AND HIGH INCOME GROUPS**

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ABSTRACT

It is quite evident that non communicable diseases have out passed other diseases, worldwide, in terms of mortality and morbidity in the last few decades. Myriad of risk factors leading to the actual disease and above all, damage caused to the body during the sub-clinical and pre disease stage, is the most concerning issue with NCDs. Older age, rich and male gender have been the highlight of healthcare services and policies, owing to high rate of tobacco use, alcohol consumption and other lifestyle habits. However women, poor and younger age groups do not seem to be spared too as mortality rates have increased from 55% in 1995 to 61% in 2016 in women. This needs serious modifications in the approach towards NCD prevention and health promotion. A cross sectional analytical study focusing exclusively on the women's health and their needs from low and high family income group, is conducted. Questionnaire inspired by WHO STEPS approach is used and non probability purposive data collection method using both online mode through social media platforms and face to face survey is adopted for data collection. 228 women participants belonging to age range 18-45 years and located around tricity, took part in the survey and results are analysed using SPSS software. As per the survey, 20% respondents have central obesity, 53% have no access to health insurance, 2% are current smokers and 10% are passive smokers. 29% consume alcohol occasionally, 39.5% do not take part in vigorous activity and 29% never indulged in moderate activity. 15.4% spent at least 10-12 hours in a day doing sedentary work, 6% participants have menstrual problems along with hair and skin problems, 11.4% have raised blood pressure, 6% are under medication for the same and 4.8% have raised serum cholesterol levels. Despite different initiatives for the prevention and control of NCDs, an effective implementation is the major challenge in Indian setting. Strengthening of the health systems with focus on health promotion and awareness, impactful surveillance, monitoring, evaluation and timely up gradation towards need based and equitable healthcare services, is the need of the hour.

Keywords: non communicable diseases, women health, lifestyle disease, risk factors

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A QUALITATIVE STUDY TO EXPLORE RISKY RIDERSHIP AMONG YOUNG RIDERS IN MANIPAL, INDIA

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ABSTRACT

Road crash injuries have emerged as a significant public health issue in many low-and middle-income countries in recent years. Annually, more than 1.35 million people lose their life due to road crashes, making it one of the leading causes of death worldwide. India accounts for the second-largest number of fatal road traffic crashes in the world. Motorization has made travelling much more accessible and affordable in the contemporary world. In India, motorcyclists comprise 70% of the vehicle population and are considered the most vulnerable road users. Road crash injury is common among the young aged population leading to premature deaths. Riders in the age range of 18-25 years contribute to 41.4% of India's total road crash victims. It is essential to understand risky riding behaviour to develop accurate, evidence-based risk reduction programs that fit the characteristics of the target population and the intervention setting. Five focus group discussions were conducted with eight to ten participants in each group (N=30) in Manipal, which is a locality of Udupi district in Karnataka province of Southwestern India. A discussion guide was prepared in a logical sequence to know the underlying causes of road crashes and gather suggestions from the participants to improve road safety. Thematic analysis was done using MAXQDA software to identify, analyze and report themes within the data. Speeding, riding under the influence of alcohol, and poor maintenance of motorbikes was indicated as leading cause of crashes. Furthermore, using mobile phones while riding, violations of the traffic rules, and helmet non-use were identified as other risky behaviours among young riders. Participants believed that impatience among young riders contributed to risky riding practices and environmental conditions such as bad road, climatic conditions, and road and safety infrastructure. The study highlights the importance of the in-depth investigation to explore the risky riding behaviours among young riders through their experiences and perspective. Future research can be taken up in other settings with broader age group involvement for the target population. Awareness generation with the involvement of young riders, government authorities, university officials, and the road transport office can be initiated. Strict law enforcement should be done to discourage any acts of risky riding and violations. Fixing the infrastructural issues with advanced road engineering with the coordinated multispectral effort, by and large, will end up a more significant commitment to the reduction of road crashes in the city.

Keywords: focus group discussions, road crashes, Manipal, young riders

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CHARACTERISTICS OF HISTOPATHOLOGICAL VARIANTS AND CLINICAL PROFILE OF COLORECTAL ADENOCARCINOMA PATIENTS

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ABSTRACT

Colorectal carcinoma is a malignant tumor that grows in the epithelial tissue of the colon and rectum. Colorectal carcinoma is the third most common malignancy case globally after lung and breast cancer, with an incidence of 10,2%. In Asia, the incidence of colorectal carcinoma was 957,896 cases (50,8%) which South Korea is the country with the highest prevalence in 2018. The mortality rate for colorectal carcinoma in Asia is very high at 461.422 cases (52,4%) in 2018. Colorectal carcinoma ranked third for the most common cancer in Indonesia. The World Health Organization (WHO) predicted that the incidence of colorectal adenocarcinoma would increase by 77%, and the mortality rate would increase by 80% in 2030. Risk factors of colorectal carcinoma can be classified as modifiable and non-modifiable factors. The modifiable factors are diet and lifestyle, whereas the non-modifiable factors are age, hereditary, and environment. The pathological prognostic factors of colorectal carcinoma consist of tumor site, size, degree of penetration, lymph node metastasis, distant metastasis, histopathological variants, differentiation of tumor, and lymphovascular invasion. The most common histopathological variant of colorectal carcinoma is colorectal adenocarcinoma. This study aimed to determine the clinicopathological characteristics of colorectal adenocarcinoma patients at Dr. Hasan Sadikin Hospital Bandung. The method used in this study was a cross-sectional descriptive analysis. Samples from 64 Medical records cases of colorectal adenocarcinoma patients were obtained from histopathological examination reports at the Department of Pathology Anatomy of Dr. Hasan Sadikin Hospital Bandung. This study showed that the most common histopathological variant of colorectal adenocarcinoma was conventional glandular-forming (not otherwise specified) colorectal adenocarcinoma (98%). The number of male cases (61%) was larger than female cases (39%). The median age of the patients in this study was 55 years. The >50 years age group (61%) dominated the samples more than other age groups. In conclusion, most cases are not otherwise specified (NOS) colorectal adenocarcinoma (98%), male sex (61%), and mostly prevalent in >50 years age group (61%) with the median age of the patients was 55 years.

Keywords: colorectal adenocarcinoma, characteristics, histopathological variants, age, gender

[77]

A QUALITATIVE EXPLORATION OF PATIENTS' EXPERIENCES AND BARRIERS TO ADEQUATELY CONTROLLING HYPERTENSION IN GREECE

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ABSTRACT

Hypertension is an important modifiable risk factor for cerebrovascular and cardiovascular morbidity and mortality. Uncontrolled hypertension is quite prevalent and constitutes a very serious public health problem. The main aim of the focus group study was to have adults discuss experiences and barriers to managing hypertension and to provide possible suggestions to improve healthcare delivery. Focus group discussions (2 focus groups, 7 participants in each group) were employed in this qualitative study. A total of 14 hypertensive participants (9 men & 5 women) were recruited from 1st Local Health Unit (TOMY) of Nea Philadelphia, Attica, Greece. The discussions were audio recorded and thematically analyzed. The HL levels of the participants were assessed using the European Health Literacy Questionnaire (HLS_EU_Q16). Eight out of the 14 participants had inadequate & problematic health literacy levels, whereas, 6 participants had sufficient HL levels. Two major themes were developed from the focus group discussion: a) barriers for better adherence to lifestyle modifications for managing hypertension and b) suggestions to improve hypertensive patients' experience in primary health care. Reasons for not adhering to lifestyle modifications were low self-care levels, swift work, low perceived risk of the disease at diagnosis due to young age and lack of symptoms, prescription of medication to control blood pressure which occasionally led to deliberate low adherence to lifestyle modifications and lack of clear and easy to follow guidelines on lowering dietary salt. Suggestions to improve hypertensive patients' experience in primary health care included: a more thorough and comprehensive description of the seriousness of the condition, at diagnosis, emphasis on the importance of the lifestyle modifications, regardless of the concurrent prescription of medication to control blood pressure, more frequent follow up, particularly during the 1st year after diagnosis and referral after diagnosis to other health professionals which could aid with dietary and mental stress management. The study offers an insight into patients' experiences and barriers to adequately controlling hypertension in Greece and could be useful for primary care practitioners, researchers and policy makers.

Keywords: hypertension, health literacy, qualitative research, Greece

[78]

AWARENESS OF HYPERTENSION AND SELF-CARE BEHAVIORS TO PREVENT HYPERTENSION

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ABSTRACT

Hypertension, also called the “silent killer,” is affecting more than 1.13 billion people with its fatal consequences: heart attack, stroke, kidney failure to coronary artery disease, making it a major cause of premature death worldwide. In Thailand, the overall prevalence of hypertension increased from 21% in 2003 to 25% in 2014. However, plenty of people do not realize their risk of hypertension and cannot prevent themselves from hypertension. This study aimed to explore people’s awareness regarding hypertension risk and their self-care behaviors to prevent hypertension. The cross-sectional online survey was used. The questionnaire was constructed by the researcher and content validity was checked by experts. It consisted of general information, risk factors for hypertension, awareness of hypertension, self-care behaviors to prevent hypertension and knowledge about possible complications of hypertension. There were 428 responses from participants aged above 18 to beyond 60. Most of the participants were female and aged between 41-50 years old, followed by 18-30 years old. For the risk of hypertension, 50.2% of the participants have BMI over the normal range, 58.9% have family history with hypertension, 8.6% have diabetes, 24.1% have lipidemia, 42.1% have moderate to severe stress, 53.3% drink alcohol, and 14.5% are cigarette smokers. When analyzing the actual risk of hypertension versus perceived risk by the participants, 21.3% of them perceived that they have lower risk than their actual risk they have. As for awareness regarding hypertension’s consequences, complications caused to the brain such as hemorrhagic stroke, ischemic stroke, and cerebral aneurysm are better known among the participants, compared to the problems of kidney and heart diseases. Over two thirds of the participants tried to control their weight, 59.1% exercised regularly, and 51.4% consumed a low salt diet, whereas 11.7% had not taken care of themselves to prevent hypertension. In conclusion, many of the participants have some awareness of hypertension risk, but not enough for them to take serious actions. Therefore, health literacy should be promoted, and self-care behavior should be encouraged to prevent risks that can cause hypertension among the people.

Keywords: hypertension, awareness of hypertension, health risk

[79]

**ASSESSING MENTAL WELL-BEING AMONG ADOLESCENTS IN VELLORE
DISTRICT, TAMIL NADU**

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ABSTRACT

Background & Objective: In today's world, many adolescents face many problems due to social media distractions among one of the most important problems is mental health and its related problems. India has adolescents a quarter of the total population and only a few studies were done on mental well-being among adolescents studying in government and private schools. This research study would help to improve the mental health of adolescents by assessing their mental well-being and the objectives are to assess mental well-being among adolescents and to find out the association between mental well-being with selected sociodemographic variables. **Methodology:** This was a cross-sectional self-administered questionnaire-based study. A convenient sampling method was used. Totally 184 male and female adolescents studying 9th to 12th standards from rural areas of government and private school students had voluntarily participated. To assess the mental well-being among adolescents Warwick-Edinburgh Mental Well-being Scale (WEMWBS) was used. All the collected data were cleaned, coded, and entered in MS-Excel version 2007. Frequencies and Chi-square test was analyzed by using SPSS software version 22.0. **Results and Conclusion:** The results were found that 59 % of adolescents were studying in a government school and 41% were studying in a private school. Out of 184 students 53% were males and 47% were females had participated in this study. By assessing Mental Well-being among adolescents with gender, males were having a 45% of average level and females were having a 35 % of average level of Mental Well-being. There was an association between mental well-being and mother's education, siblings, staying, domicile and extracurricular activities ($p < 0.05$). This research study showed that most of the adolescents having an average level of mental well-being in Vellore district of Tamil Nadu.

Keywords: mental well-being, mental health, adolescents, school students, Vellore district

[80]

A NEEDS-BASED LONG-TERM FACILITY FOR YOUNG PEOPLE WITH MENTAL ILLNESSES

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ABSTRACT

The **background** of this paper deals with long-term facility for young people with mental illnesses. In Austria, there are currently only a few facilities that specialize in young adults aged 18 to 35, which, together with other gaps or restrictions, represent a serious problem. Young adults with mental illness live in care homes where orientation and social connection to the outside world are largely lacking, which makes it difficult to leave these institutions. The **aim** of this study was to create a model for a needs-based long-term care facility for young people aged between 18 and 35. Therefore, the research question arose: How can a model of a long-term facility for young adults with mental illnesses be represented? To answer the research question, the **methodology** a systematic literature review of German- and English-language articles were chosen and 23 interviews with experts from the psychiatric field had been conducted. The interviews were transcribed in full text and analyzed with the help of qualitative content analysis including inductive-deductive category formation according to Mayring (2008) and Kuckartz (2018) using MAXQDA 2020 software. The **results** show that autonomy, self-determination and self-reliance should be promoted and lived in an institution for young adults, and based on this, the “Modell Lebenswohnraum” was designed. In this multi-perspective, multi-dimensional model, a multi-professional team consisting of people with psychosocial training and career changers from various fields is to build a stable and sustainable relationship with the residents by integrating environments, action performances and action components as well as their interrelationships. When applying the model, it is absolutely necessary to focus on needs orientation and person-centeredness. In **conclusion**, this model can be applied with some limitations in existing facilities or can also help to focus on the needs of people with mental illness when creating new concepts.

Keywords: young adults, mental illness, supported accommodation

[81]

IDENTIFICATION AND MANAGEMENT OF TRAUMATIC AND PSYCHOLOGICAL HAZARDS IN GERMAN EQUINE VETERINARY HOSPITALS

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ABSTRACT

The structure of the equine veterinary profession, characterized by disproportionate high incidences of traumatic musculoskeletal and psychological hazards leading to above-average rates of burnout and suicides, has an important impact on employees and public health. Even within the profession awareness of the hazards is low and methods to avoid or mitigate them are lacking. The human medicine profession report correlations between well-being and the implementation of quality-management systems (QMS) and ISO-9001 certification (ISO). While research regarding hazards is limited in the Germany equine profession, research regarding QMS/ISO is lacking. This study aims to specify the type of psychological and traumatic employees are exposed to as well as their consequences and the circumstances of their occurrence. Furthermore, it is investigated if implemented QMS and/or ISO influences the presence or severeness of hazards. The authors hypothesize that equine veterinary personnel in Germany is exposed to several hazards. It is also hypothesized that implementation of QMS/ISO results in more efficient avoidance of incidents and consequential damage to physical and mental health occurs less often. A quantitative research design based on an anonymous online survey was used to investigate the hypotheses. The validated questionnaire was administered to 450 employees of 13 German equine hospitals. Details about demographics of participants and hospitals were collected. The participants listed all anatomical sites ever injured before they focused on description of their worst injury. Mental well-being, perceptions of psychosocial work characteristics and work-home interaction was assessed. The hypothesized presence and consequences of hazards were proved. Number of working-hours, professional mistakes and client complaints were the main mental stressors. Mainly traumatic injuries occurred during routine actions, with lower extremities and the head being injured mostly. Results regarding the association between QMS/ISO and hazards were controversial. Equine professionals experience severe hazards. The study results will be used to improve mental and physical health in the profession by making greater emphasis on awareness and investigate in methods to avoid or mitigate hazards. Further research based on objective parameters is needed to explore the effects of QMS/ISO.

Keywords: occupational health and safety, equine veterinary practice, psychological hazards, traumatic musculoskeletal hazards, quality management, ISO-9001 certification

[82]

TEACHERS' PSYCHOLOGICAL WELL-BEING DURING QUARANTINE: ITS RISK AND PROTECTIVE FACTORS

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ABSTRACT

In the COVID-19 pandemic, the psychological health of teachers is no less important than that of students. Therefore, to achieve better learning outcomes and students' psychological health, teachers' psychological health needs to be taken care of as well, as student-teacher relationships also depend on teachers' psychological status. The teaching profession is generally associated with an increased risk of stress and burnout. Pre-pandemic research has already reported that work online causes teachers anxiety, stress, promote burnout, and reduces job satisfaction. A pandemic adds a negative effect to the negative feelings you are already experiencing. The study included 566 teachers in middle and high school. Among them, 8% were men, 85% were women and 7% did not identify their gender. The age varied from 21 to 72 years old with a mean of 50.11 (9.93) years. The Copenhagen Burnout Inventory was used for the assessment of burnout. The World Health Organisation - Five - Well-Being Index (WHO-5) was employed to identify the current mental wellbeing. To measure social capital, the administration's social support, parents' social support, teachers' social support, school children's social support, and school trust indicators were used. Results revealed that among social capital indicators, only administration support is significantly related to teachers' psychological well-being ($\beta=.207$, $p<.001$). The support of rest two groups of the school community – parents and other teachers were not associated with teachers' psychological well-being. The higher school trust also emerged as a significant predictor of better psychological well-being ($\beta=.158$, $p<.05$). Social capital indicators explain almost 15% of the variance in psychological well-being. When the burnout indicators were included in the next model, school social capital stopped being significant. The higher personal burnout ($\beta=-.413$, $p<.001$), work-related burnout ($\beta=-.134$, $p<.05$), and student-related burnout ($\beta=-.111$, $p<.05$) emerged as significant predictors of better psychological well-being, and personal burnout had the strongest link. Burnout variables added around 31% to the variance of psychological well-being. Conclusion. Higher personal, work-related, and student-related burnout are directly related to lower teachers' psychological well-being. Social capital indicators, specifically administration's and school children's support and school trust are also associated with higher psychological well-being, protecting teachers from burnout.

Keywords: burnout, teaching, COVID-19, well-being

[83]

**“BEST AFTERCARE – EVER”, A HOLISTIC PERSPECTIVE ON AFTERCARE
FOR SUBSTANCE USE DISORDER PATIENTS: RESULTS FROM AN IN-DEPTH
STUDY**

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ABSTRACT

Substance use disorder (SUD) is a serious public health threat. In Norway SUD is one of the three most common psychiatric diagnoses. Municipal aftercare is conducted after detoxification treatment in a non-standardized way dependent on the municipal resources. The aim of this study was to improve municipal aftercare by using relevant research on aftercare and applying a Human Engineering perspective on an aftercare project. Twenty-one persons participated. Individualised programs with physical activity and social company on a farm were developed. Seventeen semi-structured qualitative interviews were conducted. Aerobic fitness was measured pre-post. The participants rating of living conditions was compared to a similar group of patients receiving care as usual. The possibility for the users themselves to engage in the treatment was deemed as an advantage by them. The intervention, carried out in an atmosphere of abstinence, was considered an important success criterium. Varied physical activity, both manual labour and training toward a specific goal, was pointed out as positive factors for a successive treatment. The interviews showed that the aftercare intervention was perceived as holistic and user oriented with a “see and be seen” culture. This was considered positive by the participants. Post-test fitness level was as in the normal population. The findings are interpreted from a Human Engineering perspective. Both technological and organisational frames of action influence the patients, in positive as well as negative directions. Our recommendation is that focus and frames for aftercare work should be strengthened in a coordinated direction with a clear strategy and practice for cooperation and user orientation. Aftercare interventions can function positively when the care is user-oriented and have a holistic design. By structuring the program around the patients, and engaging them actively in the process, there will be a better chance of lasting abstinence. Enhancing patients’ self-efficacy by giving them individualised tasks also contribute to a positive outcome. Physical activity will keep motivation high as patients work towards a common or individual goal. Technological and organisational forms of action may thus enhance each other, positively.

Keywords: Substance use disorder, holistic approach, user-oriented treatment

[84]

THE INVESTIGATION OF THE ANTIMICROBIAL ACTIVITIES OF *Piper Betle L.*

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Nowadays, infectious diseases are prevalent and severe health problems as they render the increment of casualty, illness and global economic recession. Along with the emergence of antimicrobial resistance, the potency of typically used antibiotics can be affected to a considerable degree. As a result, unorthodox antibiotics have become an urgent issue in a pharmaceutical field. *Piper betle L.*, known as betle leaf, has been used for many purposes such as a traditional home remedy, and has shown its ability in inhibiting bacteria as well as fungus. Thus, in this study, the investigation of antimicrobial activities of the *Piper betle L.* extracts was carried out using Agar disk-diffusion method and Broth microdilution, aiming to evaluate and determine its efficacy to inhibit bacterial and fungal growth of *Staphylococcus aureus*, *Salmonella typhi* and *Candida albicans*. In the agar disk-diffusion test, the extracts of *Piper betle L.* gave the maximum zone of inhibition of 15.1 mm (*S. aureus*), 7.7 mm (*S. typhi*) and 11.7 mm (*C. albicans*). While, its MIC values were 1000 µg/ml in *S. aureus* and greater than 2000 µg/ml in *S. typhi* and *C. albicans*. According to the results, the *Piper betle L.* obtains an antimicrobial activity, and shows higher effect towards gram-positive bacteria than gram-negative bacteria. To determine the mechanism behind its ability, more research is needed to be performed in the future.

Keywords: Antimicrobial activity, *Candida albicans*, *Piper betle L.*, *Salmonella typhi*, *taphylococcus aureus*

[85]

GREEN TECHNOLOGY EXTRACTION AND QUALITY CONTROL OF CBD OILSuchada J^{1*}, Lukman S², Famera M², Apirada S², Nalinee P³ and Thanapat S⁴

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ABSTRACT

Cannabis sativa L. (hemp) is used to make a variety of commercial, industrial and medicinal use. In this study, we investigated the development of a green technology extraction methods and efficient technique for the analysis of the main non-psychoactive cannabinoids in hemp inflorescences. We designed to identify samples with a high content of bioactive compounds, with a view to underscoring the importance of quality control in derived products as well. Different extraction methods, including maceration (M), ultrasound-assisted extraction (UAE), microwave-assisted extraction (MAE) and supercritical-fluid extraction (SFE) were applied and compared in order to obtain a high yield of the target analytes from hemp. This study will develop a formulation of extracting pure CBD firm hemp in sesame oil. The results showed that supercritical-fluid extraction was proved to be the most suitable technique for the extraction of cannabinoids in hemp samples. HPLC was used for testing CBD in sesame oil that included determination of CBD, optimization method of extraction CBD in hemp inflorescences. Therefore, the researchers developed a reliable, precision and accurate method for analysis of CBD. Samples were analysed by HPLC connected with Merck™ AQ C18 column (150 x 4.6 mm, 5 µm) and a mobile phase of 82.5 % methanol: 17.5 % water was used. Detection was done at 220 nm. This report describes a standardized dissolution testing methodology by HPLC for analyzing CBD in sesame oil. The stability study reveals no significant variation in appearance, pH, percent drug content, viscosity, in vitro dissolution profile studies up to two months.

Keywords: *Cannabis sativa*, Hemp, Cannabidiol, Supercritical-fluid extraction

[86]

ANTIMICROBIAL ACTIVITY OF *Thunbergia laurifolia* EXTRACT

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ABSTRACT

Infectious diseases are one of the notable threats that humans have faced in recent years. There are medicinal plants that possess important therapeutic activities that could be utilized to inhibit these bacterial growths. *Thunbergia laurifolia* is a popular Thai herb that possesses metabolic activities, including tannins, alkaloids, phenolic compounds, and flavonoids. The purpose of this study was to examine antimicrobial activities of *T. laurifolia* extract using agar disk-diffusion method and broth microdilution to determine the minimum inhibitory concentration (MIC) value. In addition, *T. laurifolia* leave extract was studied antimicrobial activities against Gram-positive *Staphylococcus aureus* and Gram-negative *Salmonella typhi*, and *Candida albicans*. The results showed that *S. aureus* were susceptible to *T. laurifolia* extract with MIC value of 1.950 mg/ml while *Salmonella typhi* and *Candida albicans* were less susceptible to *T. laurifolia* (MIC > 3 mg/ml). In conclusion, *T. laurifolia* extract showed promised antibacterial activity against *S. aureus*. The result from this study provides an insightful knowledge on antimicrobial activity which would lead to further development of an effective formula of *T. laurifolia* for gram-positive bacterial infection. Our findings can help enhance public health and contribute to global anti-microbial resistance issue.

Keywords: Antimicrobial activity, *Staphylococcus aureus*, *Thunbergia laurifolia*

[87]

**EVALUATION OF IN VITRO ANTIOXIDANT POTENTIAL OF *Camellia sinensis*
LEAVES EXTRACT**

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Oxidative stress has been identified as the root cause of the development and progression of several diseases as the disproportion of free radicals in the body leads to tissue or cell damage. Polyphenols are the most common antioxidant found in plants and are efficient in capturing oxidative free radicals. Antioxidants are substances found in the medicinal plants which may have a protective role to play in certain conditions such as heart disease, stroke and some cancers. By relying on these benefits we have traced out the presence of antioxidant in *Camellia sinensis* leaves extract. This study aims to evaluate flavonoids content in *C. sinensis* extract and investigate antioxidant activities by using DPPH and ABTS radical scavenging capacity assay. The total flavonoid content of *C. sinensis* extract was determined and expressed as quercetin equivalents (QE)/g measured by an aluminium chloride colorimetric method. The results showed that the IC₅₀ of *C. sinensis* leaves extract were 40.90 µg/mL ± 0.755 and 32.96 µg/mL ± 0.679 for DPPH and ABTS, respectively. *C. sinensis* extract at increasing concentration showed antioxidant activities as a concentration dependent manner. In the DPPH assay, vitamin C was used as a positive control, whereas Trolox was used as a positive control in the ABTS assay. In conclusion, *C. sinensis* extract consisted of a high amount of flavonoids content which possesses potent antioxidant activity. However further antioxidant activity assays using human cell lines such as SOD, ROS, and RNS scavenging assays as well as in vivo antioxidant experiments should be performed. This work could be beneficial as fundamental knowledge for further research into developing *C. sinensis* as pharmaceutical base product for free radicals-causing diseases such as cardiovascular or cancer diseases.

Keywords: ABTS assay, Antioxidant, *Camellia sinensis*, DPPH assay, total flavonoid content

POSTER PRESENTATIONS

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**COMPARISON OF ANTIMICROBIAL ACTIVITY OF *Momordica cochinchinensis*
AND *Pinus kesiya* EXTRACTS**

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In recent years, infectious diseases have increased considerably, and they are amongst the most common leading causes of death all over the world. Since the rapid emergence of resistance bacteria has become a major global problem, medicinal plants are plausible candidates for therapeutic use. Medicinal plants have been used in traditional medicine for a long time since they are the major source of active constituents, for instance, lycopene and carotenoids. In addition, They have been reported in biological activities such as antioxidant activity and anticancer potential. This study aimed to examine the antimicrobial activities of *M. cochinchinensis* and *P. kesiya* extracts against *Staphylococcus aureus*. Antimicrobial activities of these plant extracts were monitored using the agar disk-diffusion method and broth microdilution method to determine the minimum inhibitory concentration (MIC) value. In this study, *M. cochinchinensis* and *P. kesiya* extracts are investigated for antibacterial activity against *Staphylococcus aureus*. On the one hand, the results showed that *S. aureus* were susceptible to *P. kesiya* extracts with MIC value of 62.5 µg/ml. On the other hand, *M. cochinchinensis* showed MIC against *S. aureus* was greater than 2000 µg/ml. It can be concluded that *P. kesiya* extract showed potent antibacterial activity against *S. aureus*, which could greatly value developing as adjuvant therapy for infectious diseases. Infectious diseases can be palliated by antibiotics in the past, yet a lot of evidence indicated that pathogens have developed antibiotic resistance to lessen the efficacy of antibiotics. Therefore, the result of *P. kesiya* and *M. cochinchinensis* in this study will be beneficial for the development of plant extract and public-health of human in the future. However, further investigation regarding purification of the active constituents as well as a determination of the mechanism of antimicrobial action of *P. kesiya* active compound should be performed to identify the molecular target of the active compounds.

Keywords: Antimicrobial activity, *Momordica cochinchinensis*, *Pinus kesiya*, *Staphylococcus aureus*

[89]

THE ATTITUDE OF THAI PEOPLE TOWARD COVID-19 VACCINATIONNoppakhun W¹ and Setchoduk K²¹*Samsenwittayalai School, Bangkok, Thailand*²*Assumption University, Bangkok, Thailand*[*watsarapha.nop@gmail.com](mailto:watsarapha.nop@gmail.com)**ABSTRACT**

One of the key successes to battle Coronavirus pandemic is vaccination. However, there is an issue of COVID-19 vaccine hesitancy among Thai people due to doubt in its efficacy and side effects. The exploration of the issue regarding COVID-19 vaccine among Thai people will help healthcare providers understand the reason underpinning this issue and find the strategies to deal with COVID-19 vaccine hesitancy. This study aims to explore the attitude of Thai people toward COVID-19 vaccine regarding its efficacy and side effects. Cross-sectional survey study was conducted with 634 participants by using an online questionnaire constructed by the researcher. The content validity was checked by the experts and reliability was 0.708. The results revealed that most of the participants were female (66.2%), mean age is 44.4 (± 12.21) years old. 72.1% were vaccinated with Sinovac (35.0%), AstraZeneca (33.6%), Sinopharm (2.4%) and combined types of vaccine (1.1%). The higher percentage of unvaccinated participants were due to age barrier for vaccination (7.3%), unable to reserve the vaccine (4.7%), medical limitation (0.6%) and undesirable to get the vaccine (15.3%) because feared of its side effects and unsured of its efficacy. The participants received information about fear side effects of COVID-19 vaccine from social media (3.23 ± 1.31), which caused worriedness of vaccine side effects and efficacy. They thought that Thailand has not well managed vaccination for Thai people (1.87 ± 1.02) especially the distribution of vaccines (1.84 ± 1.02) and the efficacy of provided vaccines (2.22 ± 1.17). In conclusion, people hesitate to receive the COVID-19 vaccine due to uncertainty about its efficacy and fear of its side effects. Social media should play a crucial role in disseminating positive information regarding COVID-19 vaccination to encourage people for vaccination.

Keywords: COVID-19 vaccine, vaccine hesitancy, vaccination, vaccine efficacy, vaccine side effect

[90]

**EMPLOYEE RETENTION STRATEGIES IN TIMES OF SKILLS SHORTAGES:
JOB SATISFACTION AS A MEANS OF MOTIVATION AND EMPLOYEE
LOYALTY**

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ABSTRACT

The **background** of the research focuses on perceptions of work, motivation at work, and employee satisfaction. It includes the employee's intrinsic motivational factors and the employer's extrinsic triggers and reactions. Occupational fields in health care take a particular position here, as employees' work is already strongly determined in advance by intrinsic motivations, focussing on helping. Pharmacists should see themselves in such a professional field, as they occupy an important position in the health sector through the transfer of knowledge, advice, and controlling functions. Pharmacists' motivation has mainly been excluded from research and has concentrated more on other professional fields in the health sector. Therefore, this recognized research gap is addressed under the research question: "Which factors are pharmacist's motivation (intrinsic and extrinsic) in their job and how do they affect job satisfaction?" Which intrinsic motivational factors are determining and which factors are perceived as beneficial. **Methodologically** the Job Characteristics Model (JCM), according to Hackman and Oldham, will be prosecuted. The JCM's methodology focuses on the pharmacist's perceptions of changing requirements at work, completeness of task in work in connection with autonomy of task completion and feedback on performance. The research **aims** to enhance future and existing employees regarding career choice and promote them within the activity. The **results** obtained provide information on how pharmacists perceive their work, which intrinsic factors lead to this work, and which extrinsic factors can increase motivation. In **conclusion** improvements shall be identified to counteract the increasing shortage of pharmacists as an essential part of the health system and in the interest of society.

Keywords: motivation, job satisfaction, healthcare, employee loyalty, pharmacies

[91]

IN VITRO BIOLOGICAL STUDY OF CURCUMA LONGA EXTRACT

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In recent years, there has been a great deal of interest in determining the antioxidant potential of foods. Activated antioxidant compounds can scavenge free radicals and protect the human body from the damaging effects of free radicals on cells. *Curcuma longa* Linn. is belonged to the Zingiberaceae family and is usually used as a famous spice in many Southeast Asia countries. This study focused on evaluating the flavonoids content of *C. longa* and evaluate their antioxidant activity via DPPH and ABTS radical scavenging capacity assays. Trolox was used as a positive control in the ABTS assay, whereas vitamin C was used as a positive control in the DPPH assay. The total flavonoid content of *C. longa* extract was done and expressed as quercetin equivalents (QE)/g measured by an aluminium chloride colorimetric method. The results showed that the half-maximal inhibitory concentration (IC₅₀) of *C. longa* extract were 41.79 µg/mL ± 0.687 and 26.28 µg/mL ± 0.726 for DPPH and ABTS, respectively. The antioxidant activities of *C. longa* extract showed concentration-dependent manner. To conclude, *C. longa* extract is plentiful in flavonoids, which have powerful antioxidant properties. The findings from this study could shed light that it is worth developing additional research on the antioxidant activity of *C. longa* extract regarding the molecular mechanism and human-based research for establishing the mechanism of action and cause and effect on health benefits.

Keywords: ABTS assay, Antioxidant, *Curcuma longa*, DPPH assay, total flavonoid content

[92]

THE INVESTIGATION OF THE ANTIMICROBIAL ACTIVITIES OF *Piper betle* L.

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Nowadays, infectious diseases are prevalent and severe health problems as they render the increment of casualty, illness and global economic recession. Along with the emergence of antimicrobial resistance, the potency of typically used antibiotics can be affected to a considerable degree. As a result, unorthodox antibiotics have become an urgent issue in a pharmaceutical field. *Piper betle* L., known as betle leaf, has been used for many purposes such as a traditional home remedy, and has shown its ability in inhibiting bacteria as well as fungus. Thus, in this study, the investigation of antimicrobial activities of the *Piper betle* L. extracts was carried out using Agar disk-diffusion method and Broth microdilution, aiming to evaluate and determine its efficacy to inhibit bacterial and fungal growth of *Staphylococcus aureus*, *Salmonella typhi* and *Candida albicans*. In the agar disk-diffusion test, the extracts of *Piper betle* L. gave the maximum zone of inhibition of 15.1 mm (*S. aureus*), 7.7 mm (*S. typhi*) and 11.7 mm (*C. albicans*). While, its MIC values were 1000 µg/ml in *S. aureus* and greater than 2000 µg/ml in *S. typhi* and *C. albicans*. According to the results, the *Piper betle* L. obtains an antimicrobial activity, and shows higher effect towards gram-positive bacteria than gram-negative bacteria. To determine the mechanism behind its ability, more research is needed to be performed in the future.

Keywords: Antimicrobial activity, *Candida albicans*, *Piper betle* L., *Salmonella typhi*, *Staphylococcus aureus*

[93]

**IN VITRO ANTIOXIDANT AND FREE RADICAL SCAVENGING ACTIVITY OF
Phyllanthus emblica L. EXTRACT**

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Oxidative stress has been identified as the root cause of the development and progression of several diseases as the disproportion of free radicals in the body leads to tissue or cell damage. Polyphenols are the most common antioxidant found in plants and are efficient in capturing oxidative free radicals. This study focused on the antioxidant activity of polyphenols extracted from *Phyllanthus emblica* L. as oxidative stress plays a vital role in developing and progressing many diseases, including cardiovascular diseases and cancer. The plant was extracted using a mixture solvent (ethyl alcohol: water in ratio 8:2). The total phenolic content of *P. emblica* extract was determined using Folin-Ciocalteu method and calculated as gallic acid equivalents (GAE) and various antioxidant assays which were DPPH and ABTS radical scavenging capacity assays. The findings exhibited a strong correlation between antioxidant activity and the total phenol contents. In addition, the IC₅₀ of *P. emblica* extract via DPPH and ABTS assays were 68.10 µg/mL ± 0.455, and 49.24 µg/mL ± 0.716, respectively. Furthermore, *P. emblica* extract showed antioxidant activities as a concentration dependent manner. Vitamin C was used as a positive control in DPPH assay, while Trolox was used as a positive control in ABTS assay. In conclusion, *P. emblica* extract consisted of a high amount of total phenolic content which possesses potent antioxidant activity. However further antioxidant activity assays using human cell lines such as SOD, ROS, and RNS scavenging assays as well as in vitro antioxidant experiments should be performed in order.

Keywords: Antioxidant, ABTS scavenging, DPPH scavenging assay, total phenol contents assay, *Phyllanthus emblica* L.

[94]

FACTORS INFLUENCING THE ACCEPTABILITY OF COVID-19 VACCINATION IN MYANMAR DURING SPRING CRISIS

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ABSTRACT

Introduction: The political transition is well-documented factor of anti-vaccination attitudes in Myanmar since February first. Health care workers were given priority for Coronavirus disease 2019 (COVID-19) vaccination in January for the first dose. Then, there is an argument to accept the vaccine after detaining the elected government leaders. **Objective:** To determine the perception, acceptance, preferences and influencing factors of future COVID-19 vaccine. **Methods:** It was a cross-sectional online survey using Google Forms. A total of 301 who access the internet for social media users responded during two months data collection period, 15 February to 19 April 2021. **Results:** Most of them (89.4%) were from urban area. More than two-thirds (69.7%) were from Mandalay and Yangon cities. While assessing the perception about the COVID-19 vaccination, 85.0% of the social media app users cited that COVID-19 vaccination is an effective way to prevent and control the infection. Majority of them (90.4%) responded that they would like to accept vaccination if it is successfully developed and approved for listing in the future. Among the respondents, two-fifths (40.5%) had already received 1st dose of COVID-19 vaccine, and among them, 82.0% cited that they want to accept 2nd dose of vaccine. In addition, 86.4% of the respondents thought that doctor's recommendation is an important factor in vaccination decision-making, while 70.4% responded that vaccine price is an important factor. **Conclusion:** The study highlighted that majority of the respondents wanted to accept the vaccine although they concerned about the side-effects and political unrest. It is recommended to develop successfully for strengthen vaccine convenience.

Keywords: COVID-19 vaccine, acceptability, hesitancy, spring revolution

[95]

BIOLOGICAL ACTIVITY OF *Carthamus Tinctorius L.* EXTRACTS

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Herbal plants are becoming more prominent every day, with the majority of modern medicine being derived from plants. It has been proven that oxidative stress from the disproportionate free radical levels is the leading cause of a multitude of illnesses such as cancers and cardiovascular diseases. *Carthamus tinctorius* L. (safflower) has been identified to contain antioxidant activity from its phenolic content. This study was aimed to investigate the phenolic content and antioxidant activities through total phenolic content and various antioxidant assays. *C. tinctorius* was extracted using a mixture solvent (ethyl alcohol: water in ratio 8:2). The total phenolic content of *C. tinctorius* extract was determined using Folin-Ciocalteu method and calculated as gallic acid equivalents (GAE). The antioxidant activity of *C. tinctorius* extract was performed via 2, 2-diphenyl-1-picrylhydrazyl (DPPH) free radical scavenging assay and ABTS radical scavenging capacity assays. The findings exhibited a strong correlation between antioxidant activity and the total phenol contents. In addition, DPPH and ABTS assays showed that *C. tinctorius* extract exhibited antioxidant activities as a concentration-dependent characteristic. The IC₅₀ of *C. tinctorius* extract from DPPH and ABTS assays were 313.58 µg/mL ± 0.845 and 192.29 µg/mL ± 0.790, respectively. Vitamin C was used as a positive control in DPPH assay, while Trolox was used as a positive control in ABTS assay. In conclusion, high amounts of total phenolic content and potent antioxidant activity were found in *C. tinctorius* extract, making it a promising compound to further investigate in and develop for medicinal uses in several diseases. This herbal plant will have a significant impact on the public health and well-being of people world-wide.

Keywords: ABTS assay, Antioxidant activity, *Carthamus tinctorius* L., DPPH assay

[96]

DETERMINATION OF ANTIOXIDANT CAPACITY OF BIOLUMINESCENT NEONOTHOPANUS NAMBI EXTRACT

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ABSTRACT

While the basidiomycetes, especially *Neonothopanus nambi* (luminescence mushroom), is an inexhaustible source of biologically active compounds with medicinal value, the high basidiomycetes are moreover an excellent source of complex edible fungal extracts. Mushrooms are recognised as functional foods and as a source of physiologically beneficial components. It was reported to boost heart health; lower the risk of cancer; promote immune function; ward off viruses, bacteria, and fungi; reduce inflammation; combat allergies, and help to balance blood sugar levels and support the body's detoxification mechanism. This study aims to investigate total phenolic content and antioxidant capacity of the extract derived from *N. nambi*. The total phenolic content of *N. nambi* extract was determined using Folin-Ciocalteu method and calculated as gallic acid equivalents (GAE). The antioxidant activity of *N. nambi* extract was performed via 2, 2-diphenyl-1-picrylhydrazyl (DPPH) free radical scavenging assay and ABTS radical scavenging capacity assays. Vitamin C was used as a positive control in DPPH assay, while Trolox was used as a positive control in ABTS assay. The findings showed that *N. nambi* extract exhibited antioxidant activities as a concentration-dependent manner. The half-maximal inhibitory concentration (IC₅₀) values of *N. nambi* extract were 309.11 µg/mL ± 0.873 and 249.71 µg/mL ± 0.794 for DPPH and ABTS, respectively. To summarize, *N. nambi* extract contains a significant amount of total phenolic content associated with significant antioxidant activity. This study could be a background information to highlight the value of natural products so that further development can be developed for the goods of the public health to improve the quality of life

Keywords: ABTS assay, DPPH assay, luminescence mushroom, *Neonothopanus nambi*, total phenolic content

[97]

INVESTIGATION OF ANTIOXIDANT ACTIVITY OF *Hibiscus sabdariffa* EXTRACT

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ABSTRACT

Oxidative stress has been known as the main cause of the development and progression of several diseases including important human diseases like cardiovascular disease, type 2 diabetes, digestive diseases, and some cancers. Flavonoids are the most abundant antioxidant in plants and also have an excellent ability to capture oxidative free radicals. *Hibiscus sabdariffa* has been reported various biological activities including *H. sabdariffa* is a rich source of phenolic and flavonoids. These phytochemicals are responsible for several bioactivities such as antimicrobial activity. *H. sabdariffa* was used in this study, aiming for determining the antioxidant activity of polyphenols, as oxidative stress plays a vital role in the development of cancer. The total flavonoids content was determined using the aluminium chloride colourimetric method and expressed as quercetin equivalents (QE)/g and the antioxidant capacity of the flavonoids using the DPPH and ABTS radical scavenging capacity assays. The IC₅₀ values of *H. sabdariffa* extract were 167.14 µg/mL ± 0.843 and 77.59 µg/mL ± 0.798, respectively. In the DPPH assay, vitamin C was used as a positive control, whereas Trolox was used as a positive control in the ABTS assay. To summarise, *H. sabdariffa* extract contains a high concentration of total flavonoids and exhibits potent antioxidant activity. However, additional antioxidant activity assays such as SOD, ROS, and RNS scavenging assays and in vitro antioxidant experiments should be carried out to investigate the molecular mechanism of the compound.

Keywords: ABTS assay, Antioxidant activity, DPPH assays, total flavonoid content, *Hibiscus sabdariffa*

[98]

**PSYCHOSOCIAL CONSIDERATION IN RESPONSE TO THE PSYCHOLOGICAL
IMPACT OF COVID-19 TO THE HEALTH CARE WORKERS IN THE NATIONAL
CAPITAL REGION, PHILIPPINES**

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ABSTRACT

The exponential increase of COVID-19 cases in the Philippines had created problems including heavy workload of handling patients, lack of personal protective equipment (PPEs), overwhelmed hospital facilities, personnel imbalance, and under-compensation that healthcare workers had to face, making them at high risk for both physical and mental exhaustion. With that being said, the study was conducted to evaluate the impact of working amid the COVID-19 pandemic to the mental health and quality of work of healthcare workers, specifically the nurses, physicians, and medical technologists in private and public institutions in the National Capital Region. A random sample of 108 respondents answered a survey which determined their demographic profile, quality of work, and psychosocial factors that were perceived to affect both their work and mental health through the indicators - depression, anxiety, and distress. The correlation of the independent variable - psychosocial factors, to the dependent variables - mental health and quality of work, was determined through Analysis of Variance (ANOVA) and Structural Equation Modeling (SEM). A substantial amount of healthcare workers was seen experiencing anxiety (76.9%), depression (59.2%) and post-traumatic stress disorder (81.5%). From this, scores of nurses were seen to be poorer as compared to the other occupations. For quality of work, healthcare workers in private institutions exhibited poorer results than public institutions. Overall, the study indicated a significant variation in the mental welfare of healthcare workers when classified according to profession and type of medical institution. A significant difference in the quality of work of healthcare workers when grouped according to medical institution was also observed, but not in terms of profession. The findings also support that the psychosocial factors have a significant effect on both the mental health and quality of work of healthcare workers. Broadening of the research locale, inclusion criteria and performing interviews for future studies are recommended as well as the prioritization of the development of both new and existing policies in order to support the improvement of the mental welfare of the healthcare employees to achieve better health outcomes.

Keywords: COVID-19, healthcare workers, quality of work, mental health, psychosocial factors

[99]

IN VITRO ANTIOXIDANT ACTIVITY OF *Derris Scandens* EXTRACT

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Multiple diseases have been linked to excessive levels of free radicals, which cause tissue or cell damage as a result of oxidative stress. Many plants are sources of high antioxidant activity. *Derris scandens* has high amount of phenolic and flavonoid contents which demonstrated good biological activities. This study focused on the antioxidant activity of polyphenols extracted from *D. scandens*. This study performs total flavonoids content and various antioxidant assays which were 2,2-diphenyl-1-picryl-hydrazyl-hydrate (DPPH) and 2,2'-azino-bis (3-ethylbenzothiazoline-6-sulfonic acid) (ABTS) radical scavenging capacity assays. The total flavonoid content of *D. scandens* extract was determined and expressed as quercetin equivalents (QE)/g measured by an aluminium chloride colorimetric method. The antioxidant activity of *D. scandens* extract was also determined by DPPH and ABTS assays. In the DPPH assay, vitamin C was used as a positive control, whereas Trolox was used as a positive control in the ABTS assay. The half-maximal inhibitory concentration (IC₅₀) values for *D. scandens* extract from DPPH and ABTS assays were 41.79 µg/mL ± 0.783 and 29.42 µg/mL ± 0.890, respectively, in the DPPH assay. To conclude, *D. scandens* extract consists of a high amount of total phenolic content, which exhibits a significant antioxidant activity that can be useful for future development for therapeutic purposes since oxidative stress is one of the causes for developing various diseases such as cardiovascular diseases and cancers. However, further investigation should be performed regarding antioxidant activities such as SOD, ROS, and RNS scavenging assays and in vivo experiments.

Keywords: ABTS assay, Antioxidant activity, *Derris scandens*, DPPH assays, total flavonoid content

[100]

**AN EXAMINATION OF TEMPORAL TRENDS IN HEALTH BEHAVIORS AMONG
US CHILDREN, ADOLESCENTS, AND ADULTS FROM 2005-2016**Mubarak N^{1,2}, Collins AP^{1*}, McCall M¹ and Mayne S^{2,3}¹*College of Medicine, University of Central Florida, USA*²*Center for Public Health Initiatives, University of Pennsylvania, USA*³*PolicyLab Children's Hospital of Philadelphia, USA*[*Andrewcollins@knights.ucf.edu](mailto:Andrewcollins@knights.ucf.edu)**ABSTRACT**

Lifestyle-related health behaviors are major contributors to preventable chronic disease. There has been limited published research examining differences in trends of multiple lifestyle factors between US children, adolescents, and adults over an extended period. The objective of this study is to assess temporal trends in health behaviors of US children, adolescents, and adults to analyze behaviors effecting health outcomes across these groups. The study population included 46,793 participants from the 2005-2016 National Health and Nutrition Examination Survey from three age groups: children (aged 2-11), adolescents (aged 12-19), and adults (aged ≥ 20). We calculated weighted prevalence of unhealthy behaviors – poor diet quality, low physical activity, screen time, fast food consumption, smoking (adolescents and adults), alcohol use and short sleep duration (adults) – for each survey wave to examine trends across age groups. Multivariable logistic regression estimated associations of sociodemographic characteristics with unhealthy behavior clustering (≥ 2 behaviors), stratified by age. Results demonstrated that between 2005-2016, the proportion of children not meeting the physical activity guidelines increased and screen time increased among all ages. Dietary quality improved and smoking prevalence declined among adolescents and adults, while fast food consumption declined among adolescents. Unhealthy behavior clustering among children increased by 13%. The odds of unhealthy behavior clustering were higher among children that were older, non-Hispanic Black, or lived in unmarried households, and among adults who were younger, non-Hispanic black, had lower educational attainment, were uninsured or had public insurance, and had lower poverty-to-income ratios. In conclusion, findings suggest that screen time and physical inactivity are growing areas of concern in the U.S. population, and that disparities in adherence to multiple healthy behaviors may contribute to disparities in chronic diseases.

Keywords: health trends, lifestyle medicine, disease prevention

[101]

IN VITRO ANTIOXIDANT ACTIVITY OF *Caesalpinia sappan* EXTRACT

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Numerous diseases have been linked to oxidative stress, in which a disproportion of free radicals in the body leads to tissue or cell damage. Polyphenols are the most abundant antioxidants found in plants, and they are highly effective at scavenging oxidative free radicals. Due to the presence of phenolic compounds in *Caesalpinia sappan* has been discovered to have antioxidant activity. It has several health benefits, the most important of which is preventing cardiovascular and cancer diseases. This study aimed to determine the phenolic content and antioxidant activity of *C. sappan* extract using a variety of antioxidant assays. The extract of *C. sappan* was made using a mixture of solvents (ethyl alcohol: water in ratio 8:2). The total phenolic content of *C. sappan* extract was determined and expressed as gallic acid equivalents using the Folin-Ciocalteu method (GAE). The antioxidant activity of *C. sappan* extract was assessed using the 2, 2-diphenyl-1-picrylhydrazyl (DPPH) free radical scavenging assay and the ABTS radical scavenging capacity assay. An association was found between antioxidant activity and total phenol content. The antioxidant activity of *C. sappan* extract was also determined by DPPH and ABTS assays. The IC₅₀ values for *C. sappan* extract from DPPH and ABTS assays were 54.48 µg/mL ± 0.545 and 25.46 µg/mL ± 0.790, respectively, in the DPPH assay. In the DPPH assay, vitamin C was used as a positive control, whereas Trolox was used as a positive control in the ABTS assay. In conclusion, *C. sappan* extract contains a high level of total phenolics and exhibits significant antioxidant activity. Nevertheless, more research should be done on the antioxidant activity, such as SOD and ROS scavenging assays and in vivo experiments, to determine whether the compound has antioxidant activity. Furthermore, from this experiment, our work can be fundamental information for developing drugs that is used for oxidative stress-related diseases.

Keywords: ABTS assay, Antioxidant activity, *Caesalpinia sappan*, DPPH assay

[102]

FACIAL DIPLEGIA IN AML, AN UNUSUAL PRESENTATION

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ABSTRACT

Background: Bilateral facial palsy is an uncommon presentation of AML. It is present in less than 0.3-2 % of all facial paralysis patients and in AML It is due to leukemic cell infiltration of the facial canal. **Case Presentation:** A 43yr old male presented with right sided deviation of mouth and inability to close both eyes and open mouth completely for the past 16 days. Physical examination was suggestive of gum hypertrophy and Bilateral LMN type of VII cranial nerve palsy [L>R]. He was unable to blow whistle for last 9 days. There was no history of hyperacusis, loss of taste sensation, weakness of any part of body, ear discharge or fever. Pallor and gum hypertrophy was present., forehead wrinkling and nasolabial fold were absent on both sides. Bell's phenomenon was positive, suggestive of LMN type of Bilateral facial palsy. [L>R]. P/A examination revealed hepatosplenomegaly and Cardio-Respiratory examination and examination of head, eyes, nose, and throat was normal. **Conclusion and Diagnosis:** MRI Brain revealed Bilateral mastoiditis. Blood picture and flow cytometry for leukaemia revealed AMML. [M4] and chemotherapy was started. Peripheral blood show 85% of blast and 15% lymphocytes. Bone marrow aspiration shows 90% of blast cells. Bone marrow biopsy show marrow totally replaced by blasts with increased mitotic activity. Flow cytometry shows positive for CD 45, CD 38, CD 13, CD 117, BCR-ABLt{9:22} translocation assay was negative. Diagnosis of AML was established on basis of bone marrow and flow cytometry. **Discussion:** AML is an hematological malignancy and CNS involvement in the form of meninges with leukemic blast cells occurs in 16.5% of patients and is commonly associated with monocytic variety of AML, However symptomatic facial palsy is rare.

[103]

DIAGNOSTIC ACCURACY OF ULTRASONOGRAPHY IN PATIENTS WITH VISIBLE HAEMATURIA

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ABSTRACT

Visible Haematuria is one of the Primary Complaint with Background of Urogenital Cancers. Some of the common Cancers prevalent in UK are Bladder Cancer, Prostate Cancer and Urothelial Cancers. NICE has recommended a comprehensive guideline for the assessment of patients complaining visible Haematuria. NICE recommends that patient above 50 years of age with visible haematuria should be on 2-week referral pathway and get there CT Urinary tract with contrast and flexible Cystoscopy done as investigation modality. A Closed loop audit to evaluate the number of the number of investigations being performed for Visible Haematuria and implement NHS Recommended guidelines across University Morecambe Bay Hospitals of Morecambe Bay NHS Trust. We Collected a retrospect data from Urology OneStop Clinic with primary complaint of visible Haematuria from the month of July and August. We tried to assess all the investigation modality performed for such patients and these modalities included Urine Dipstick, Ultrasound, Flexible Cystoscopy and CT Urogram. The outcome of the fist audit cycle showed all patients had their USG performed while only 64% of patients had their CT urogram performed/ordered. It was also evident from first cycle that USG could only pick 29% of the pathologies and missed remaining pathologies including both upper and lower Urinary tract lesion. So, it was recommended by Cross Bay Urology and Radiology teams to assure CT Urogram for visible haematuria patients. It was also recommended not to rely on USG for targeted patients. Second Cycle of Audit was conducted in November and retrospect data from patients collected from September-November. The results were promising as 96% of the patients with visible haematuria had their CT Urogram Performed/Booked. In addition, Ultrasound rate decreased from 100% to 76%. CT Urogram is considered as gold standard investigation for patients with visible haematuria. A number of patients with visible haematuria visiting OneStop Urology clinic in our Trust were not investigated with CT urogram. Patients were invariably getting USG that has been less sensitive in diagnosing Urinary tract pathologies. It was recommended that patients with visible haematuria should be getting CT urogram as diagnostic choice. Implications were done and data gathered after 2 months gap showed promising increase in patients getting CT Urogram.



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