



# KIU



# Multidisciplinary Research Conference 2023

**Proceedings** MRC 2023

**Navigating the Challenges of Research  
and Innovation 20<sup>th</sup> November 2023**

**Organized by  
Technology Transfer Office - KIU Sri Lanka**

# **Proceedings**

## **The 2<sup>nd</sup> Multidisciplinary Research Conference 2023 (MRC 2023)**

*“Navigating the Challenges of Research and Innovation”*

20<sup>th</sup> November 2023 | Colombo, Sri Lanka

Committee of the 2<sup>nd</sup> Multidisciplinary Research Conference 2023

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- Judges** - Dr. Niroscha Edirisinghe  
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- Guest Speaker** - Dr. A. V. Pramuditha Madhavi



### Technical Session 2 – Health & Multidisciplinary Sciences session

- Session Chairperson - Dr. Kanthilatha Hettigoda
- Co-Chairperson - Prof. N. Saleem
- Judges - Mr. Lalinka Herath  
Ms. Nilusha Goonathilake
- Guest speaker - Prof. Jananie Kottahachchi

### Technical Session 3 – Management Session

- Session Chairperson - Prof. Thilini Chathurika Gamage
- Judges - Prof. Ganga Karunathilaka  
Prof. Thilini Chathurika Gamage  
Dr. Dinesh Devindra Fernando  
Dr. Piyawi Wijewardene
- Guest Speaker - Dr. Dinesh Devindra Fernando

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## **Message from the Honorary Vice Chancellor**

With great pleasure, I extend my message as the Honorary Vice Chancellor of KIU for the Multidisciplinary Research Conference to be held on the 20<sup>th</sup> of November 2023 for the 2<sup>nd</sup> consecutive year. As I am delighted to warmly welcome all participants to the conference, and it is indeed my pleasure to open this remarkable event, which promises to be an enriching experience for all involved. I strongly believe that this conference will enhance the quality of research and foster wider collaborations in the future.

The theme of the conference “Navigating the Challenges of Research and Innovation,” provides a platform for addressing some of the most pressing challenges facing our society today. It is an opportunity to foster meaningful collaborations, stimulate creative thinking, and lay the foundation for a better future through active engagement in research and innovation. This conference serves as a starting point for the brightest minds of KIU to exchange knowledge skills, insights, and research outcomes, which must be critically discussed, leading to suitable solutions must be taken based on constructive arguments.

This conference is a step towards achieving our vision of becoming a world-class academic and research institution producing competent human capital for Sri Lanka, as research plays a crucial role in a country’s development. Thus, our collective efforts will undoubtedly contribute to advancing our understanding of this critical field and fostering global progress.

Finally, I would like to thank the distinguished keynote speakers, reviewers, sponsors, session chairs, and participants for sharing their expertise and contributing to the intellectual discourse that we will engage in over the coming days. Also, I express my gratitude to Mr. Akila Jayamaha the Chairperson of the conference, and Ms. Caroline Fernando the Secretary of the conference, as well as the organizing committee, whose tireless efforts and dedication have made this event possible. I am confident that this occasion will provide a platform for strengthening our relationships in knowledge sharing while simultaneously facilitating joint research collaborations and fostering commercialization within the research society.

It is my aspiration that this conference will lay the foundation for the growth of new ideas towards a better tomorrow.

**Senior Professor Neluka Fernando**  
**Honorary Vice-Chancellor**  
**KIU**



## Message from the Conference Chairperson

I am delighted to extend a warm welcome to all participants, speakers, and guests of the Multidisciplinary Research Conference (MRC) 2023, organized by KIU Sri Lanka. As the Conference Chairperson, it is an honour to be part of an event that promises to be a hub of knowledge, collaboration, and innovation.

The theme of this year's conference, “Navigating the Challenges of Research and Innovation,” reflects the dynamic nature of the innovation and research landscape and underscores the importance of creating a discourse on mitigating the numerous challenges faced by scholars. Throughout the conference, we aim to provide a platform for insightful discussions, the exchange of ideas, and the presentation of cutting-edge research across various disciplines. Our distinguished speakers and presenters bring a wealth of knowledge and experience, creating an environment conducive to fostering new collaborations and pushing the boundaries of research and innovation.

I encourage all participants to actively engage in the sessions, contribute to discussions, and take full advantage of the networking opportunities available. May this conference be a source of inspiration, learning, and collaboration for all involved. I look forward to the valuable insights and discussions that will undoubtedly emerge during this event.

I would like to express my sincere appreciation to the organizing committee and all those who have worked tirelessly behind the scenes to bring this conference to fruition.

Thank you for your participation, and I wish everyone a rewarding and enriching experience at the Multidisciplinary Research Conference 2023.

**Akila Randika Jayamaha**  
**Dean, Faculty of Graduate Studies,**  
**Chief Growth Officer,**  
**Research and Innovation Division,**  
**KIU**



## **Message from the Conference Co - Chairperson**

It is a great pleasure to write this message on the Multidisciplinary Research Conference (MRC), 2023 of KIU Sri Lanka under the theme of “Navigating the Challenges of Research and Innovation.”. I believe the theme of this year's conference is quite timely given that we as a country are trying hard to get on our feet and excel in the global competitive environment and research and innovation are the right path to reach that endeavor. The MRC 2023 conference has brought together students and academics from various institutions and disciplines to share their latest research findings and insights.

I am incredibly grateful to the individuals who have contributed to the success of this conference. First and foremost, we thank the authors for their high-quality submissions, which underwent a rigorous review process. I also thank the reviewers for their dedication and expertise in evaluating the submissions. The conference would not have been possible without the tireless efforts of the organizing committee, who worked tirelessly to ensure a smooth and productive event.

I also wish to convey my sincere gratitude to the President of KIU, the Honorary Vice Chancellor, all the Deans of Faculties and Heads of Departments, academic and non-academic staff at KIU, and the Registrar of KIU for extending their fullest support and cooperation during the MRC 2023.

I would also like to extend my special gratitude and appreciation to Dr. Nivash Rugbeer from the Department of Physiology, University of Pretoria, South Africa for agreeing to deliver the keynote speech at the MRC 2023.

I wish MRC 2023 every success!

**Dr. Sunimal Rathnayake**  
**Honorary Dean**  
**Faculty of Computer Science & Engineering**  
**KIU**



## Message from the Keynote Speaker

As you embark on this remarkable conference, I would like to express my heartfelt best wishes to the entire KIU team. The platform for this conference will encourage robust discussions, promoting innovative thinking and cutting-edge research so that it translates into practice. Furthermore, the fusion of ideas will spark creativity in academia and will undoubtedly inspire us to push boundaries in pursuit of excellence.

The essence of a multidisciplinary conference is to unite the diverse academic fields, fostering a spirit of togetherness across different disciplines with a common vision in sight so that groundbreaking discoveries are made. Although the various academic fields are inherently different, the common subjective vision and purpose remain a consistent pursuit in all disciplines. Therefore, we are certainly stronger together and the unique contribution in each discipline will emphatically create targeted and streamlined research to address the common challenges around the world.

I feel humbled to make a small contribution to this prestigious conference. There are emerging challenges in research; however, amid challenges, there are opportunities. Challenges are steppingstones to resilience, which promotes adaptability, critical thinking and problem-solving skills. Therefore, emerging challenges in research stimulate the development of a curious mind and tenacity to achieve extraordinary feats.

Once again, I would like to applaud and commend KIU for organizing an inspiring Multidisciplinary Research Conference 2023. Wishing you a rewarding conference and may the conference exceed all expectations and make a profound impact on the academic careers and research endeavors of the participants and audience. Let the effulgent vision of diverse disciplines unite to pave the way to a brighter and prosperous academic future.

**Dr. Nivash Rugbeer Lecturer**  
**Department of Physiology**  
**Biokinetics and Sport Science Division University of Pretoria,**  
**South Africa**



## **Thanking Note from the Conference Secretary**

As the Secretary of the 2<sup>nd</sup> Multidisciplinary Research Conference 2023, I would like to extend my heartfelt gratitude to all esteemed authors, from multiple disciplines, Nursing, Health Science, Management, Behavioral Science, English, and Computer Science, for your invaluable contributions and dedicated participation in this event. Your commitment to the pursuit of knowledge and interdisciplinary collaboration has made this conference a resounding success.

I am delighted to extend my heartfelt gratitude, on behalf of KIU, to all the esteemed invitees whose invaluable contributions are pivotal to the success of the conference. With immense pleasure, I extend my thanks to Dr. Nivash Rugbeer, Lecturer, Department of Physiology, University of Pretoria, South Africa for graciously accepting our invitation to serve as the Keynote Speaker for the event. We are truly honored to have you. I would also like to express my gratitude to Mr. Akila Jayamaha, and Dr. Sunimal Rathnayake, who chaired the conference and shared their expertise, which is instrumental in ensuring the conference's success. I am truly thankful to all Session Chairs, Prof. S.S.P. Warnakulasuriya for chairing the Nursing session, Dr. Kanthilatha Hettigoda and Prof. N. Saleem for chairing the Health & Multidisciplinary Sciences session, and Prof. Thilini Gamage for chairing the Management session of the conference.

Furthermore, I wish to extend my heartfelt gratitude to the President of KIU, Dr. Jagath Seneviratne, for his invaluable support in making this event a success. I also take this opportunity to extend my sincere appreciation to our Honorary Vice Chancellor, Senior Professor Neluka Fernando, whose unwavering support and leadership have consistently served as a guiding force for KIU. Also, I very specially extend my thanks and gratitude to the KIU management, all Deans, Heads of academic and non-academic departments, and the entire staff of KIU for their invaluable contributions made towards the success of the conference. A very special thanks to our respected reviewers and panel members, whose expertise in their respective disciplines significantly contributed to the conference's success. Finally, I wish to express my sincere thanks to Ms. Aloka Dhananjani and Ms. Chamani Ridma – Co-secretaries of MRC 2023, and the dedicated organizing committee, whose support and hard work are a tremendous source of strength throughout the conference's planning and execution.

Thank you for being an integral part of this Multidisciplinary Research Conference. We look forward to many more opportunities for collaboration, learning, and growth in the future.

**Ms. Caroline Anastasia Fernando**  
**Conference Secretary**  
**Multidisciplinary Research Conference (MRC) 2023**

## Schedule of the Technical Sessions

Oral Presentations - Technical Session 1: Nursing		
SN	Paper ID	Title and Author/s of the Paper
OP 1.1	MRC_NUR_012	Diabetes Distress among Patients with Diabetic Mellitus who are referred to the Family Medicine Clinic at the District Hospital, in Wethara, Sri Lanka  <i>Thilakarathne GWDNR, Dilrukshi GP, Dammadeepa DGC, Pathumi WGC, Shanthi GKMA, Sandakumari HHHS, Kanchana KTG</i>
OP 1.2	MRC_NUR_047	Prevalence of Neonatal Complications and its association with the Gestational Age: A Cross-Sectional Study at Castle Street Hospital for Women, Sri Lanka  <i>Jayarukshi KKIT, Kawshalya WR, Kariyawasam HKDR, Senewirathna SAWA, Chathurika HBGD, Abeyrathna WMDN, Senarath NSASN, Nisansala MWN</i>
OP 1.3	MRC_NUR_050	Level of Happiness and Life Satisfaction among Nurses who are working at Government Hospitals in the Western Province, Sri Lanka  <i>Subodhani KT, Nadeeka RMP, Liyanage LSM, Ranasinghe DB, Dharmarathna HHND, Jayamaha AR</i>
OP 1.4	MRC_NUR_071	Evaluation of the Self-Perception regarding Digital Educational Technologies in Teaching and associated factors among Nursing Students at the College of Nursing Matara  <i>Sampath PAU, Warnakulasuriya SSP</i>
OP 1.5	MRC_NUR_074	Assessing Perceived Academic Stress and Internet Addiction Levels in Teenagers: A Study in a Selected School in the Western Province  <i>Iddamalgoda IHS, Wijesinghe PHA, Gunathilaka RPD, Herath HMTT, Peiris MVP, Upeksha SDH, Samarasinghe HGAS, Ranaveera RAND, Perera ACH</i>
OP 1.6	MRC_NUR_075	Prevalence and risk factors associated with Varicose Veins among Nursing Officers at Colombo South Teaching Hospital, Sri Lanka  <i>Tharangani DGRI, Perera GDSI, Wickramasinghe KTGIP, Bagya AG, Upendra AT, Samarasinghe HGAS, Upeksha SDH, Ranaweera RAND, Perera ACH</i>

<b>OP1.7</b>	MRC_NUR_082	<p>Refusal of Hemodialysis among Patients with Chronic Kidney Disease attending Nephrology Clinic at Base Hospital Padaviya, Sri Lanka</p> <p><i>Pathiraja SPHS, Dabare HPM, Karunaratne DDTI</i></p>
<b>OP1.8</b>	MRC_NUR_085	<p>Awareness of risk factors for Cervical Cancers and Screening among Patients attending Gynecological Clinics at Base Hospital Tangalle</p> <p><i>Wijesekara SL, Tharangani UGP, Dilhani MKR, Sewwandi SMG, Dilhani EA, <u>Hasanthika WWR</u>, Senarath NSASN, Nisansala MWN</i></p>
<b>OP1.9</b>	MRC_NUR_091	<p>Perceived Stress and Quality of Life among Caregivers of Children with Asthma in a Selected Hospital in Colombo, Sri Lanka</p> <p><i>Gamage UGDC, Silva NMS, Kumari MRN, <u>Perera KRDG</u>, Chandradasa PHCS, Kariyawasam KHAY, Nisansala MWN</i></p>
<b>OP1.10</b>	MRC_NUR_096	<p>Gender-based Violence among Men and Women during COVID-19 referring to Mithuru Piyasa Center at Embilipitiya Hospital</p> <p><i>Wijesinghe SN, Wickramaarchchi WACP, Udayangani RMM, Amarawansa RIS, Withanachchi CD, Sandakumari HHS, Kanchana KTG</i></p>
<b>OP1.11</b>	MRC_NUR_098	<p>E-Health Literacy among patients who attended District General Hospital Embilipitiya, Sri Lanka</p> <p><i><u>Muthukumarana PRW</u>, Harshani DB, Dissanayaka NG, Fernando CA, Samarasinghe HGAS, Maduwanthi M, Jayamaha AR</i></p>
<b>OP1.12</b>	MRC_NUR_099	<p>Prevalence and factors associated with Work-related Musculoskeletal Discomfort among Nurses of Teaching Hospital Karapitiya - Sri Lanka</p> <p><i>Widyarathna ODS, Nisansala DWD, Madushani WPL, Chathurani JDG, Kumarasena M, <u>Fernando CA</u>, Dharmarathna HHND, Jayamaha AR</i></p>

## Oral Presentations - Technical Session 2: Health & Multidisciplinary Sciences

SN	Paper ID	Title and Author/s of the Paper
OP2.1	MRC_BMS_009	Toxicity and Biocompatibility of <i>Bacopa monnieri</i> (L.) Wettst Aqueous Extract in Various Developmental Stages of Zebrafish using the FET293 Bioassay  <i>Jayaweera JMKDB, Ravihari AKUR, Dunukara JDK, Herath HMLPB</i>
OP2.2	MRC_BMS_010	Assessment of Standard Specifications of Selected Commercially Available Hand Sanitizers  <i>Undugoda URPPS, Thilakarathne WGKS, Diulgaspitiya DAKP, Dharmawardana UGAPP, Aththanayaka DD, Kulatunga KMHH</i>
OP2.3	MRC_BMS_011	Use of Allele Specific PCR to differentiate A1 and A2 variants of Milk $\beta$ Casein Gene among Cattle in North Central Province, Sri Lanka  <i>Jayasekara PP, Gunawardana GA, Amarasinghe KMUM, Keerthi Kumara MP, Muthuwatte GC, Nanayakkara GI, Palliyeguru MWCD</i>
OP2.4	MRC_BMS_034	The Burden of Antibiotic Resistance of Coliform Species Isolated from Urine Culture Samples; A Retrospective Study at Ruhunu Hospital, Galle, Sri Lanka  <i>Kodikara VS, Vidanapathirana KP, Samarakoon DNAW</i>
OP2.5	MRC_BMS_036	Enhancing Zebrafish Facility Management and Husbandry Techniques to Comply to OECD Guidelines and Optimization of Embryo Production using Fish Ratios and Pooling Strategy  <i>Madhuranga HDT, Samarakoon DNAW, Herath HMLPB</i>
OP2.6	MRC_BMS_042	In-Vitro Antibacterial Activity of <i>Lawsonia Inermis</i> flower used as Ayurvedic Medicine in Sri Lanka  <i>Herath HMUAK, Sanchethana SGC, Shantha RMRA, Hasaana MNF, Jayasuriya DDM, Bandara AWMKK, Sedara DUP</i>

<b>OP2.7</b>	MRC_BMS_081	<p>In-Vitro Antibacterial Activity of <i>Punica granatum</i> Leaves used as Ayurvedic Medicine in Sri Lanka</p> <p><i>Hassana MNF, Sanchethana SGC, Herath HMUAK, Shantha RMRA, Jayasuriya DDM, Bandara AWMKK, Sedara DUP</i></p>
<b>OP2.8</b>	MRC_PSY_015	<p>Polydrug use among Advanced Level students in Western Province, Sri Lanka</p> <p><i>Charuni TMJ, Deva Adithya LMD, Jayamaha AR</i></p>
<b>OP2.9</b>	MRC_PSY_049	<p>Relationship between Perception and Performance in engaging in Online Learning among Undergraduates in Universities in Colombo District</p> <p><i>Sakunika O, Amathullah AS, Perera S</i></p>
<b>OP2.10</b>	MRC_PSY_068	<p>Association among Emotional Intelligence, Job Stress and Work-Life Balance: A Study on Employees in IT sector in the Colombo District</p> <p><i>Rashmy ARM</i></p>
<b>OP2.11</b>	MRC_PSY_080	<p>The Impact of BMI and Body Image Perception on Emotional Health among the Undergraduates of a selected University in Colombo District</p> <p><i>Kalanasooriya AM, Amathullah AS, Ranadeva NDK</i></p>
<b>OP2.12</b>	MRC_ENG_008	<p>Relationship between Role of Power and Existence of Humans; A Comparative and Critical Study based on the Selected Novels, <i>The Heart of Darkness</i> by Conrad, <i>The Hunger Games Series</i> by Suzanne Collins and <i>The Lord of the Rings</i> by J. R. R. Tolkien</p> <p><i>Amarasooriya DNP</i></p>

### Oral Presentations - Technical Session 3: Management

SN	Paper ID	Title and Author/s of the Paper
OP3.1	MRC_HRE_003	Impact of Implementation of Green HRM Practices on Job Performance of Executive-Level Employees: A Study based on a Selected Leading Apparel Manufacturing Company in Colombo District  <i>Caldera HAC, Chandrika KAC</i>
OP3.2	MRC_HRE_009	The Impact of Human Resource Information System (HRIS) on Employees' Job Performance at Hayleys Group  <i>Kumari MDCS, Ushara SAI</i>
OP3.3	MRC_HRE_013	Impact of the Factors on Job Seekers' Intention to use E-recruitment: Special reference from the State Universities in the North and Eastern Provinces  <i>Nadhiya ALF</i>
OP3.4	MRC_ACF_005	Factors Affecting the Implementation of Cloud Accounting in the Finance and Banking Industry in Sri Lanka  <i>Sewwandi ABC, Wijerathna WAID, Amarasinghe M</i>
OP3.5	MRC_ACF_006	Relationship between the Number of Independent Directors and the Number of Key Audit Matters (KAM) Disclosures  <i>Abdullah TFM, Sewwandi ABC, Dissanayake KT</i>
OP3.6	MRC_ACF_008	Impact of Digital Currency on the Sustainability of Banking Sector; Special reference to Systematically Important Banks (SIBs) in Sri Lanka  <i>Basnayake BMNK, Sewwandi ABC, Wijerathna WAID, Dharmarathna DG</i>

<b>OP3.7</b>	MRC_ACF_015	A Study of the Predictability of Stock Market Returns for Some Selected Countries Amidst the COVID-19 Pandemic <i>Ranathunga RAIQ, Devpura N</i>
<b>OP3.8</b>	MRC_MBM_001	The Impact of Celebrity Attractiveness, Respect and Similarity on Female Consumer's Self-Esteem: With special reference to Beauty Care Advertisements in Sri Lanka <i>Edirisooriya BT, Sajeewanie LAC</i>
<b>OP3.9</b>	MRC_MBM_006	Factors Affecting Consumers' Local Organic Food Purchase Intention in Sri Lanka <i>Jayawickrama YRVW, Sajeewanie LAC, Buddika HAM</i>
<b>OP3.10</b>	MRC_MBM_009	Effect of TikTok Influencer's Characteristics on Fashionable Clothing Purchase Intention: With special Reference to Millennials in Sri Lanka <i>Nishadi WAP, Sajeewanie LAC, Karunarathne PHMS</i>

### Poster Presentations - Technical Session 4: Nursing

SN	Paper ID	Title and Author/s of the Paper
<b>PP4.1</b>	MRC_NUR_018	Sleep Quality among COVID-19 Survivors in Hambantota District, Sri Lanka <i>Dasanayaka DMN, Kumari LANW, Gunawardhane ACW, Adhikari AMAUK, Ranjani KPP, Fernando CA, Dharmarathna HHND, Jayamaha AR</i>
<b>PP4.2</b>	MRC_NUR_037	Attitudes and Practices Towards Wearing Face Masks among Adult Population in Sri Lanka during Post COVID-19 Pandemic <i>Ushani WPGR, Jayarathne PAM, Kalutarage AN, Nirosha VWM, Sewwandi KPA, Perera, ACH.</i>

<b>PP4.3</b>	MRC_NUR_038	<p>The Financial Burden and Perceived Stress Among Patients Who Referred to Outpatient Department (OPD) at Colombo South Teaching Hospital, Kalubowila</p> <p><i>Madushani LHS, Madushani NADI, Madushani NJP, Thilini AAS, Sandakumari HHS, Kanchana KTG</i></p>
<b>PP4.4</b>	MRC_NUR_040	<p>Assessment on Trend of Migration among Nursing Officers in Sri Lanka</p> <p><i>Vidanagamachchi E, Lakmali KBG, Lambiyas CN, Sanjeevani NH, Aluwihar KP, Edirisuriya MD, Sewwandi KPA, Perera ACH</i></p>
<b>PP4.5</b>	MRC_NUR_041	<p>Perceived Barriers to Effective Pain Management among Nursing Officers Working in Teaching Hospital Karapitiya, Sri Lanka</p> <p><i>Anuradhi BGAN, Jagoda AM, Rashikala AV, Dharmasuriya KD, Sewwandi HKS, Perera ACH, Sewwandi KPA</i></p>
<b>PP4.6</b>	MRC_NUR_045	<p>Health issues among School Teenagers in Horana Education Zone with the use of Online Education during the period of COVID-19</p> <p><i>Abeyrathna WMDN, Wijesekera KAKD</i></p>
<b>PP4.7</b>	MRC_NUR_046	<p>Knowledge and Practices of Self-medication among Nurses working at the National Hospital, (NHSL) Colombo, Sri Lanka; A Cross-Sectional Survey</p> <p><i>Gunarathna KMNP, Dhanushka ADD, Rathnayaka RMCD, Jeewandara JPH, Sonnadara K, Hansini KHC, Sewwandi KPA, Perera ACH</i></p>
<b>PP4.8</b>	MRC_NUR_051	<p>Level of Physical Activity and its associated factors among Patients with Diabetes who seek treatment from a Medical Clinic at a selected hospital in Sri Lanka</p> <p><i>Thennakon RMSNM, Madhumali EI, Rathnasekara KHUN, Jayasinghe IDS, Wickramasinghe SC, Dharmarathna HHND, Jayamaha AR</i></p>
<b>PP4.9</b>	MRC_NUR_052	<p>Perceived Social Support among Nursing Officers during the COVID-19 pandemic in Sri Lanka</p> <p><i>Kiriwaththuduwa KDMC, Chandima LS, Wathsala MAU, Malika KLP, Wasana WD, Dharmarathna HHND, Jayamaha AR</i></p>

<p><b>PP4.10</b></p>	<p>MRC_NUR_053</p>	<p>Prevalence and Associated Factors for Diabetes Mellitus among Patients with Dental Caries in National Dental Teaching Hospital Sri Lanka</p> <p><i>Dharmasena VAAS, Rathnathilaka DKKS, Rathnaweera S, Punchihewa NG, Shalika HMS, Sewwandi KPA, Perera ACH</i></p>
<p><b>PP4.11</b></p>	<p>MRC_NUR_055</p>	<p>The relationship between Musculoskeletal Symptoms and Physical Activity Level among Nurses in a selected hospital in Hambantota, Sri Lanka</p> <p><i>Wickramasinghe TD, Abeysooriya PH, Dissanayake RCS, Kodithuwakku KC, Jayawardena GK, Kariyawasam KHAY, Nisansala MWN</i></p>
<p><b>PP4.12</b></p>	<p>MRC_NUR_058</p>	<p>Knowledge, attitudes, and adherence to Preventive Measures of Unintentional Injuries among Parents with Children less than fourteen years admitted to the District General Hospital Embilipitiya in Sri Lanka</p> <p><i>Subhashani HKD, Krishanthi GGC, Kumari MWD, Abeyesena MKSL, Kanthi NMG, Thilakarathna HMCRK, Warnakulasooriya SSP</i></p>
<p><b>PP4.13</b></p>	<p>MRC_NUR_060</p>	<p>Assessment of Job Satisfaction among Nurses in Low- and Middle-income Countries; Systematic Review</p> <p><i>Abeyrathna HGUW, Alagiyawanna ADS, Samarasinghe SHDS, Edirisinghe EATD, Gunasekara RAH, Jayasundara JMNK, Sandakumari HHHS, Kanchana KTG</i></p>
<p><b>PP4.14</b></p>	<p>RC_NUR_061</p>	<p>Experiences and Perception of Nursing Students regarding their Clinical Learning Environment and its relationship with Academic Motivation in Selected Nursing Training Schools in Sri Lanka</p> <p><i>Senarathna PS, Ilankoon IMPS</i></p>
<p><b>PP4.15</b></p>	<p>MRC_NUR_065</p>	<p>Prevalence of NCD Risk Factors, Health-Promotive Behaviors, and Associated Factors among Nursing Students in the Selected Schools of Nursing in Sri Lanka</p> <p><i>Attygalle DSV, Warnakulasuriya SSP</i></p>
<p><b>PP4.16</b></p>	<p>MRC_NUR_066</p>	<p>Factors Associated with Awareness of Chronic Kidney Disease (CKD) among Patients attending Base Hospital Thambuththegama, Sri Lanka</p> <p><i>Weerathunga NP, Jayasena MRVSA, Senewirathna WGNK, Jayaweera PGNM, Karunarathna SATN, Edirisuriya MD, Senarath NSASN</i></p>

<b>PP4.17</b>	MRC_NUR_067	<p>Attitudes towards Patient Safety, Perception on Patient Safety Culture, and associated factors among Health Care Providers in the District General Hospital in Embilipitiya</p> <p><i>Piyasiri VMJP, Warnakulasuriya SSP</i></p>
<b>PP4.18</b>	MRC_NUR_069	<p>Use of Technology in Education' (CEUTIE) Instrument into 'Sinhala Language' in Sri Lanka</p> <p><i>Sampath PAU, Warnakulasuriya SSP</i></p>
<b>PP4.19</b>	MRC_NUR_070	<p>Experience in Performance Obstacles and Strategies to Improve Quality Care Performance During Patient Care among Intensive Care Unit Nurses at Base Hospital, Akkaraipattu</p> <p><i>Sutharsan T, Sujendran S</i></p>
<b>PP4.20</b>	MRC_NUR_073	<p>Satisfaction and Associated Factors on Post-operative Pain Management among General Surgical Patients at Base Hospital Akkaraipattu</p> <p><i>Saheer S, Sujendran S</i></p>
<b>PP4.21</b>	MRC_NUR_076	<p>Awareness and Practices in Pretransfusion Blood Bank Sample Collection among the Nursing Officers in District General Hospital Polonnaruwa</p> <p><i>Dilhani BN, Devendra WD, Punchihewa HAG, Dharmarathne PGAM, Sandakumari SHHH, Kanchana KTG</i></p>
<b>PP4.22</b>	MRC_NUR_078	<p>Attitudes regarding Expanded Program of Immunization (EPI) of Mothers who are having Under Five-year Children at Warakapola MOH area in Sri Lanka</p> <p><i>Dharmadasa WPKC, Dharmasena GRDS, De Zoysa HN, Sonali WI, Ariyawansa RBUN, Meegoda MKDL, Edirisuriya MD</i></p>

<b>PP4.23</b>	MRC_NUR_086	<p>A Cross-Sectional Study on Knowledge, Attitudes, and Practices among Tourist Hotel Staff regarding Maintaining the Bio Bubble Concept in Benthota Tourism Area</p> <p><i>Weerasinghe PHW, Gunathilaka TMDSK, Gamage DI, Somarathnan HPSD, <u>Hasanthika WWR</u>, Sewwandi KPA, Perera ACH</i></p>
<b>PP4.24</b>	MRC_NUR_089	<p>Prevalence and Factors associated with Road Traffic Accidents among Patients in a Selected Hospital in Galle District, Sri Lanka</p> <p><i>Liyanage IH, <u>Kumarasiri RW</u>, Lakshmi MGL, Chandrasekara BRS, Kariyawasam KHAY, Nisansala MWN</i></p>
<b>PP4.25</b>	MRC_NUR_090	<p>Post-Operative Pain and Patient Satisfaction on Post Operative Pain Management among Patients in Surgical Wards in a Selected Hospital in Colombo District Sri Lanka</p> <p><i>Rajapaksha LJPK, Ranawaka IDMD, <u>Kumuduni BPV</u>, Madushika PMH, Vindyani WGCD, Kariyawasam KHAY, Nisansala MWN</i></p>
<b>PP4.26</b>	MRC_NUR_094	<p>Assessment of Knowledge, Compliance and Barriers among Nurses related to Evidence-Based Guidelines for Ventilator Associated Pneumonia (VAP) Prevention in a Selected Pediatric Intensive Care Unit, Colombo, Sri Lanka</p> <p><i><u>Madushika UHGI</u>, Perera ESI, Darshika TGRA, SiriwardanaATR, Abeykoon AMACD, Kariyawasam KHAY, Kanchana KTG</i></p>
<b>PP4.27</b>	MRC_NUR_095	<p>Assessment of Pain Beliefs and Post Operative Pain Outcomes after Spinal Cord Surgeries among Patients in a Selected Hospital in Colombo, Sri Lanka</p> <p><i><u>Gunadasa SH</u>, Dissanayaka NACD, Kekulandara KMIM, Wijesinghe WAWS, Wijesinghe WMTA, Kariyawasam KHAY, Nisansala MWN</i></p>
<b>PP4.28</b>	MRC_NUR_097	<p>Awareness, Attitudes and Barriers to Practicing and Maintaining Electronic Documentation among Government Nursing Officers in Sri Lanka</p> <p><i><u>Senevirathna DID</u>, Prasadini KKM, Thisera PMJC, Jayarathna KGDM, Ranaweera ND, Perera ACH</i></p>
<b>PP4.29</b>	MRC_NUR_100	<p>Assessment of the Dynamics of COVID-19 Misinformation Trends in Sri Lanka: A Comprehensive study</p> <p><i><u>Wijesekara HGAP</u>, Gunawardana RAWC, Fernando TRS, De Silva ADN, Thilakarathna HMCRK, Sewwandi KPA, Perera ACH</i></p>

<b>PP4.30</b>	MRC_NUR_101	Perceived Misbelieves of COVID-19 Vaccination among Healthcare Workers in National Institute of Mental Health Sri Lanka  <i>Miyanadeniya MGRTA, Nawarathna HMDU, Ariyasinghe KPGDK, Thakshila WRP, Ashani NGD, Sandakumari HHS, Kanchana KTG</i>
<b>PP4.31</b>	MRC_NUR_102	Prevalence and Factors Associated with Gestational Diabetic Mellitus (GDM) among Pregnant Mothers attending De Soysa Hospital for Women, Sri Lanka  <i>Athapaththu AMCT, Athapaththu AMCS, Samarasinghe PRNP, Rankothge RGDM, Rankoth RPNT, Nisansala MWN, Abeyrathna WMDN, Senarath NSASN</i>
<b>PP4.32</b>	MRC_NUR_103	Prevalence of Perceived Occupational Hazards among Nurses at Selected Hospitals in the Kegalle District, Sri Lanka  <i>Senavirathna BVREP, Gamage MGAE, Samanthika KWL, Disanayaka DMSD, Pathirana RPWC, Edirisuriya MD, Nisansala MWN, Senarath NSASN</i>
<b>PP4.33</b>	MRC_NUR_104	Prevalence and Factors Associated with Animal Bite among Adult Patients attending General Hospital Matara  <i>Wickramathunga RL, Boralassa LC, Chamara JKPK, Herath HMSM, Lakshmi MPDS, Senarath NSASN, Nisansala MWN</i>

### Poster Presentations - Technical Session 5: Health & Multidisciplinary Sciences

SN	Paper ID	Title and Author/s of the Paper
<b>PP5.1</b>	MRC_BMS_003	The Effect of Zinc Supplementation on Blood Sugar Reduction; A Systematic Review  <i>Jayasundara JMUD, Nadeesha DS</i>
<b>PP5.2</b>	MRC_BMS_004	Assessment of the Relationship between Body Mass Index and Foot Arch Type and the Impact of Obesity on Flat Foot among Young Adults in Sri Lanka  <i>Rathugamage DSS, Perera GWHMS, De Zoysa HTTD, Chamika MWV, Nahallage GL, Wijekumar PJ, Edirisinghe EAST</i>

<p><b>PP 5.3</b></p>	<p>MRC_BMS_005</p>	<p>Assessment of Antibacterial Activity of Selected Antiseptic and Herbal Soaps available in Sri Lanka Against Selected Skin Pathogens</p> <p><i>Nisansala PPGN, Herath HMDT, De Silva PHDH, AhamedMHH, Sandamali MK, Jayawickrama RGDR, Kulathunga KMHH</i></p>
<p><b>PP 5.4</b></p>	<p>MRC_BMS_007</p>	<p>Evaluating Spirulina (<i>Arthrospira</i>) for Hypolipidemic Activity: An Evidence-Based Review</p> <p><i>Fernando CA, Welagedara CSK</i></p>
<p><b>PP 5.5</b></p>	<p>MRC_BMS_017</p>	<p>Fast Food Consumption and Its association with BMI in a Selected Undergraduate Population in Sri Lanka</p> <p><i>Ashfa MME, Fernando WWSP, Yeshinika KAS, Vinothini R, Ihshan MRM, Kulatunga KMHH</i></p>
<p><b>PP 5.6</b></p>	<p>MRC_BMS_088</p>	<p>Assessment of Microbiological Quality of Household Drinking Water and Water Usage Practices of Undergraduates of KIU Campus residing in the Western Province, Sri Lanka</p> <p><i>Abeynayake GS, Hettiarachchi NC, Jayawickramapathiranage HT, Wickramasinghe WKSH, Appuhamy NAO, Samarakoon N, Siriwardhene A</i></p>
<p><b>PP 5.7</b></p>	<p>MRC_BMS_092</p>	<p>Could Computational Analysis Unlock Promising Malaria Treatments? A Protein-Ligand Docking of Potent Ligands on Oxidoreductase (PDB ID: 4MZC)</p> <p><i>Fernando AMF, Perera O, Mudalige H</i></p>
<p><b>PP 5.8</b></p>	<p>MRC_PSY_02</p>	<p>The Relationship between Authoritative Parenting Style and Personality among Undergraduates in Sri Lanka</p> <p><i>Rishi RLH, Adithiya LMDD, Samarakoon DNAW</i></p>

## Poster Presentations - Technical Session 6: Management

SN	Paper ID	Title and Author/s of the Paper
PP6.1	MRC_ACF_001	Effect of Working Capital Management on Shareholders Returns – Manufacturing Companies Listed in Colombo Stock Exchange <i>Wijesinghe WGDC, Karunaratne MBDN, Dushyanthi PKT, Sewwandi ABC, Wijerathna WAID</i>
PP6.2	MRC_ACF_002	Factors associated with Profitability in Listed Commercial Banks in Sri Lanka <i>Ranasinghe IMJG, Karunaratne MBDN, Dushyanthi PKT, Sewwandi ABC, Wijerathna WAID</i>
PP6.3	MRC_ACF_003	The Effect of Receivable Management on the Profitability of the Construction Sector in Sri Lanka <i>Jayasekara DDHM, Karunaratne MBDN, Dushyanthi PKT, Sewwandi ABC, Wijerathna WAID</i>
PP6.4	MRC_ACF_004	Staff Skills and Knowledge of Accounting Information Systems on Fraud Detection in the Banking Sector in Sri Lanka <i>Perera HVSK, Karunaratne MBDN, Dushyanthi PKT, Sewwandi ABC, Wijerathna WAID</i>
PP6.5	MRC_ACF_007	The Impact of Application of Accounting Software on SMEs in Sri Lanka <i>Pushpakumara PPM, Sewwandi ABC, Wijerathna WAID, Dissanayake KT</i>
PP6.6	MRC_ACF_009	The Effect of Economic Development on Environmental Pollution: Empirical Investigation of Developing Countries <i>Kulasinghe DHDS, Wijerathna WAID</i>
PP6.7	MRC_ACF_010	An Empirical Investigation of the Effect of Bank Financial Health on the Financial Stability of Sri Lanka: Special reference to Systemically Important Banks (SIBs) in Sri Lanka <i>Palihakkara HMPGRA, Wijerathna WAID, Amarasinghe AAMD</i>

<b>PP 6.8</b>	MRC_ACF_011	<p>The Impact of Working Capital Management on Firms' Profitability: Evidence from Listed Manufacturing Companies in Sri Lanka</p> <p><i>Kulasinghe DHDS, De Silva YSHRT, Wijerathna WAID</i></p>
<b>PP 6.9</b>	MRC_ACF_012	<p>An Empirical Investigation on the Impact of Social Media Adoption on the Performance of SMEs in Sri Lanka</p> <p><i>Dilni WDA, Wijerathna WAID, Devundara DGLR</i></p>
<b>PP 6.10</b>	MRC_ACF_013	<p>The Impact of Interest Rates on the Capital Structure of Listed Banks in Sri Lanka</p> <p><i>Nusaika MF, Kumari DGMLW</i></p>
<b>PP 6.11</b>	MRC_ACF_016	<p>Impact of Macroeconomic Variables on Carbon Emission in Developing Countries</p> <p><i>Nilnuwani KR, Dushyanthi PKT</i></p>
<b>PP 6.12</b>	MRC_ACF_017	<p>Impact of Working Capital Management on Profitability with Special Reference to Health and Equipment Sector in Sri Lanka</p> <p><i>Sadana R, Dushynathi PKT</i></p>
<b>PP 6.13</b>	MRC_MBM_004	<p>Social Media Customer Adoption on Online Grocery Shopping, using TAM Model with Special Reference for Colombo District</p> <p><i>Jayarathne GDI, Edirisooriya BT, Lakmal HMA</i></p>
<b>PP 6.14</b>	MRC_MBM_005	<p>The Impact of Tourist Trust on Destination Image: With Special Reference to Local Adventure Tourist Visiting Ella and Kithulgala</p> <p><i>Janithani KGM, Edirisooriya BT, Lakmal HMA</i></p>
<b>PP 6.15</b>	MRC_MBM_007	<p>Factors Influencing Handmade Craft Entrepreneurs' Intention to Use Pinterest Marketing in Promoting Products to the International Market</p> <p><i>Siriwardhana IPCU, Sajeewanie LAC, Buddika HAM</i></p>

<b>PP 6.16</b>	MRC_MBM_008	The Factors Influencing Internet Banking Adoption with Special Reference to Internet Banking Users in Kurunegala District  <i><u>Deshapriya KWGS, Sajeewanie LAC, Karunarathne PHMS</u></i>
<b>PP 6.17</b>	MRC_MBM_010	The Impact of Electronic Word-of-Mouth Quality on Consumer Purchasing Intention: With special Reference to Fashionable Clothing  <i><u>Pushpakumara MCS, Karunarathne PHMS, Sajeewanie LAC</u></i>
<b>PP 6.18</b>	MRC_MBM_011	Consumers' Impulse Buying Behaviour for Fast Fashion: With Reference to Physical Fashion Stores in Colombo District  <i><u>Hettiarachchi JHT, Gunarathna AAD, Hettiarachchi WN</u></i>
<b>PP 6.19</b>	MRC_MBM_012	The Effect of Retail Service Quality Dimensions on Customer Satisfaction: An Application on Supermarket Customers in Colombo District, Sri Lanka  <i><u>Inpas MRM, Gunarathna AAD, Rathnasiri MSH</u></i>
<b>PP 6.20</b>	MRC_MBM_013	Drivers of Consumers' Intention to Adopt Credit Cards: Evidence from Colombo District, Sri Lanka  <i><u>Wasala WMTPB, Gunarathna AAD, Rathnasiri MSH</u></i>
<b>PP 6.21</b>	MRC_MBM_014	The Role of Trust as a Mediator between Relative Advantage, eWOM, and Consumer attitudes towards Online Shopping for Clothing Products in Colombo District, Sri Lanka  <i><u>De Seram HRY, Gunarathna AAD, Rathnasiri MSH</u></i>
<b>PP 6.22</b>	MRC_HRE_001	The Impact of Transformational and Transactional Leadership Styles on Employees' Job Performance: With special reference to the Bank of Ceylon PLC in Colombo District, Sri Lanka  <i><u>Anuaradhi MP, Ushara SAI, Caldera HAC, Dissanayake DMMA, Herath HMIUP</u></i>
<b>PP 6.23</b>	MRC_HRE_002	The Relationship between Team Characteristics and Team Effectiveness among Employees with Special References to the Sana Commerce (Pvt) Ltd  <i><u>Hasaranga HPA, Anuradhi MP, Ushara SAI</u></i>

<b>PP 6.24</b>	MRC_HRE_004	Impact of Salary and Incentives on Employee Performance <i>Fernando KKSJ, Caldera HAC, Gannile C</i>
<b>PP 6.25</b>	MRC_HRE_005	Factors Affecting the Employee Turnover Intention with Reference to ABC Company in Sri Lanka <i>Dissanayaka DTADAL, Caldera HAC, Gannile C</i>
<b>PP 6.26</b>	MRC_HRE_006	Impact of Training on Employee Performance in a Selected Apparel Organization in Sri Lanka <i>Pathirana KPSS, Caldera HAC</i>
<b>PP 6.27</b>	MRC_HRE_007	Impact of Employee Work-life Balance on Employee Commitment among Middle Level Employees of Apparel Sector Sri Lanka <i>Jayawickarama YRVW, Dias PTK, Ushara SAI</i>
<b>PP 6.28</b>	MRC_HRE_008	The Impact of Work-life Balance on Executive's Job Satisfaction: Special reference to a Private Bank in Sri Lanka <i>Pallawala PKBDVT, Ushara SAI</i>
<b>PP 6.29</b>	MRC_HRE_010	The Critical Factors Affecting in the Labor Turnover among in Apparel Industry in Sri Lanka reference to Gampaha District <i>Lenagala LKHS, Herath HMIUP, Wijewardene P</i>
<b>PP 6.30</b>	MRC_HRE_011	The Impact of Job-Related Factors on Employee Performance: With Special Reference to DFCC Bank, Sri Lanka <i>Madushika JS, Herath HMIUP, Ushara SAI, Anuaradhi MP, Caldera HAC, Dissanayake DMMA</i>
<b>PP 6.31</b>	MRC_HRE_014	Factors Affecting the Failure of Coconut Producers' Cooperative Societies. (An Examination regarding the Coconut Producers' Cooperative Societies in Puttalam District of the North-West Province) <i>Perera SMCP, Dissanayake DMDDN</i>



## Multidisciplinary Research Conference (2023) Oration

Today, I stand before you to shed light on a topic of immense significance - the role of antidiabetic medicinal plants in our quest for health and well-being. In a world where the prevalence of diabetes is on the rise, it becomes imperative to explore sustainable and natural solutions for the treatments. The therapeutic potential of medicinal plants in managing diabetes is not only profound but also deeply rooted in the traditions of various cultures around the globe. Sri Lanka being a country with a higher natural biodiversity, and a great history of traditional ayurvedic medicine, patients consider these natural alternatives in their day-to-day control of diseases as well.

Firstly, let us acknowledge the sheer magnitude of the diabetes epidemic. According to the World Health Organization, diabetes affects millions of people worldwide, posing a significant threat to public health, in general all age groups the prevalence of diabetes is 2.8% in 2000 and they assume that it would be increased to 4.4% by 2030. In the face of this escalating challenge, traditional medicine, particularly the use of antidiabetic medicinal plants, can be a ray of hope.

Throughout history, various civilizations have relied on the healing properties of plants to combat a myriad of ailments, and diabetes is no exception. In many cultures, the knowledge of these medicinal plants has been passed down through generations, forming an invaluable repository of wisdom. Today, modern science is catching up, validating the efficacy of these traditional remedies through rigorous research and clinical studies. As scientists in a country with a great heritage and history of traditional medicine, it is our responsibility to bring those great medications to limelight and let our future generations receive the maximum benefit of those medications.

The pursuit of antidiabetic medicinal plants does not only signify a return to our roots but also an embrace of sustainable and holistic healthcare. These plants, often abundant in nature, present a harmonious alternative to synthetic medications, potentially minimizing side effects and fostering a more balanced approach to health.

However, it is crucial to approach the integration of medicinal plants into diabetes management with caution and consultation with healthcare professionals. While the promise of these natural remedies is vast, the intricacies of individual health conditions and medication interactions must be considered. In the presentation I have elaborated on a few medicinal plants that are used in traditional medicine and have been scientifically validated up to a certain extent.



In conclusion, the exploration of antidiabetic medicinal plants is a journey that bridges the ancient wisdom of traditional healing with the advancements of modern science. As we navigate the complexities of diabetes, let us not forget the abundant gifts that nature offers us. By incorporating these botanical allies into our healthcare arsenal, we may find sustainable and effective solutions that empower individuals to lead healthier lives.

"An ounce of prevention is worth a pound of cure." - Benjamin Franklin

Thank you.

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**KIU**



# Multidisciplinary Research Conference 2023

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## Oral Presentations

**Technical Session 1 : Nursing**

**OP 1.1: MRC\_NUR\_012****Diabetes Distress among Patients with Diabetic Mellitus who are referred to the Family Medicine Clinic at the District Hospital, in Wethara, Sri Lanka**

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**Introduction:** Diabetes is one of the most prevalent chronic diseases afflicting individuals worldwide. The emotional effects of having diabetes known as diabetic distress, can significantly hinder an individual's self-care and management of the condition.

**Objective:** To assess diabetes distress among patients diagnosed with diabetes mellitus who are referred to the family medicine clinic at the District Hospital, in Wethara, Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted at the family medicine clinic in Wethara Hospital utilizing a pre-tested interviewer-administered questionnaire long with a diabetic distress scale. The scale categorized distress levels as follows: little or no distress (<2.0), moderate distress (2.0– 2.9), and high distress ( $\geq 3.0$ ). Ethical approval was obtained from the Ethics Review Committee of KIU (ERC\_22\_064), and permission was granted by the Regional Director of Health Service in Wethara. Data analysis was performed using SPSS (version 26).

**Results:** The study comprised mostly female participants (76%, n=189) with a mean age of  $62 \pm 10$  years. Most of them were married (77%, n=238) and the majority were unemployed (73%, n=179). The average duration of having diabetes was 9.78 (SD $\pm 7.3$ ) years, while the duration of diabetes medication usage was 9.5 (SD $\pm 7.2$ ) years. The majority of participants (91%, n=223) used only oral drugs for treatment while 52% (n=129) had a family history of diabetes. The total diabetic distress score was 1.45 (SD $\pm 1.49$ ), indicating, mild or no distress. Similarly, each domain score, including emotional burden, physician distress, regimen distress, and interpersonal distress ( $1.36 \pm 0.34$ ,  $1.65 \pm 0.32$ ,  $1.34 \pm 0.34$ ,  $1.54 \pm 0.19$ ) respectively.

**Conclusion:** The study revealed that patients diagnosed with diabetic mellitus experienced mild or no diabetic distress. However, managing diabetic-related stress is vital for better patient outcomes.

**Keywords:** Diabetes mellitus, Diabetic distress, Family medicine clinic

## OP 1.2 MRC\_NUR\_047

## Prevalence of Neonatal Complications and its association with the Gestational Age: A Cross-sectional Study at Castle Street Hospital for Women, Sri Lanka

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**Introduction:** Neonatal complications are a significant factor contributing to neonatal mortality and morbidity. Pre-term labor is widely reported in low and middle-income countries and is a common factor leading to neonatal complications.

**Objective:** The purpose of the current study was to assess the prevalence of neonatal complications and their association with the gestational age of mothers.

**Methodology:** A descriptive cross-sectional study was conducted among 355 volunteer mothers in post-natal wards at Castle Street Hospital for Women using the systematic sampling method. Data were extracted from the health records of the mothers in the post-natal wards into a pre-tested, researcher-developed data extraction sheet consisting of three main sections: antenatal, labor, and neonatal complications details. Data were analyzed using SPSS version 25 and the study was ethically approved by the Ethics Review Committee of KIU.

**Results:** The mean age was 30±5 years. The majority of cases showed single fetus presentation (97%), adequate amniotic fluid level (98%), and live births (99%), Among the newborns (59%) were female. Normal birth weight was observed in (68%) of the cases, and term births accounted for (80%). An excellent Apgar score (7-10) was noted at birth in (95%) of the cases, increasing to (97%), after ten minutes (97%). The following conditions were reported: respiratory distress syndrome (35%), hypernatremia (7%), apnea (7%), sepsis (12%), anemia (3%), hyperbilirubinemia (29%), hypoglycemia (3%), feeding intolerance (10%), and meconium aspiration (7%). The prevalence of pre-term labor (<37 weeks) was 20%. Gestational age (term/ pre-term labor) was associated with hypernatremia, apnea, anemia, sepsis, hyperbilirubinemia, and feeding intolerance at the 95% confidence interval.

**Conclusion:** Respiratory distress syndrome, sepsis, hyperbilirubinemia, feeding intolerance, and meconium aspiration are common neonatal complications. Further studies are recommended to identify other factors associated with these complications and to minimize potential risk factors.

**Keywords:** Neonatal, Complications, Gestational age

**OP 1.3 MRC\_NUR\_050****Level of Happiness and Life Satisfaction among Nurses who are working at Government Hospitals in the Western Province, Sri Lanka**

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**Introduction:** Happiness is an emotional or affective state that is characterized by feelings of enjoyment and satisfaction. Nurses' unhappiness can affect their ability to care for patients effectively. Life satisfaction, which mainly depends on personal expectations, may protect nurses from the consequences of psychological problems.

**Objective:** This study aimed to determine the levels of happiness and life satisfaction among nurses working in government hospitals in the Western Province, of Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted involving 330 nurses working at government hospitals in the Western Province, Sri Lanka. Happiness and life satisfaction were estimated using the Oxford Happiness Index (OHI) and the Satisfaction with Life Scale (SWLS) through an online survey. The cut-off values of happiness were defined as follows: happy (4-6), somewhat happy (2-3), and unhappy (1-2). The cut-off values for life satisfaction were high (31-35), medium (10-30), and low (5-9). Data were analyzed using descriptive statistics and the chi-square test, utilizing IBM SPSS Version 26 as the analytical software.

**Results:** The mean age of the participants was 33.5± 8 years. Most of the participants were married (n=183, 55.5%) females (n=277, 83.9%). The mean values of happiness and life satisfaction were 3.19±0.70 (range 1-6) and 19.60±7.43 (range 5-35), respectively. The levels of happiness were categorized as happy (5.8%), somewhat happy (87.3%), and unhappy (7.0%). The levels of life satisfaction were high (30.6%), medium (36.7%), and low (32.7%). Age, gender, marital status, salary, and extra working hours were associated with levels of happiness (p<0.001). Level of education (p=0.008) and extra working hours (p<0.001) were associated with levels of life satisfaction.

**Conclusion:** A considerably low percentage of the study participants reported being in a happy emotional state. The study recommended that policymakers should focus on improving nurses' happiness and life satisfaction by addressing the factors associated with these outcomes.

**Keywords:** Happiness, Life satisfaction, Factors, Nurses

## OP 1.4 MRC\_NUR\_071

## Evaluation of the Self-Perception regarding Digital Educational Technologies in Teaching and associated factors among Nursing Students at the College of Nursing Matara

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**Introduction:** During the COVID-19 pandemic, several Digital Educational Technologies (DET) were implemented as an alternative to continue education, in educational institutes worldwide, often without adequate preparation. Similarly, the College of Nursing (CON) Matara, implemented several DET to maintain educational continuity. The students of the CON Matara had diverse perceptions regarding the implementation of these DET.

**Objective:** To evaluate the self-perception of nursing students regarding DET, and to identify factors associated with their perception.

**Methodology:** A descriptive cross-sectional study was conducted by recruiting 422 nursing students through a stratified random sampling method. Data were collected through a web-based survey, using the "Comprehensive Evaluation of Use of Technology in Education" instrument, following cross-cultural validation. The mean and standard deviation for all 28 items of the instrument and 08 constructs were calculated. Independent sample t-tests and one-way ANOVA test were performed, to identify overall mean differences between selected variables.

**Results:** A total of 422 nursing students participated in the study (Males=24, Females=398). The mean value range for all 28 items of the instrument was from 3.52 (SD±1.78) to 5.04 (SD±1.06). The highest overall mean value was reported for the construct of "Technology," while the lowest was for the construct of 'Presence/Community'. There was a statistically significant difference between the overall mean values of the perception regarding the used DET in teaching, among different groups: Gender (Males=4±0.2 Females= 4.5±0.2,  $t = -2.48$ ,  $p=0.01$ ), Student Batch (2018 A=4.37±0.1, 2019 A=4.58±0.1,  $t = -2.18$ ,  $p=0.03$ ), Perceived Digital Dependency Levels (PDDL) (Low=3.92, Medium=4.43, High=4.68,  $F=5.15$ ,  $p=0.01$ ), Perceived Digital Competency Levels (PDCL) (Low=4.04, Medium=4.49, High=4.83,  $F=5.3$ ,  $p=0.05$ ) and Family Support Levels (FSL) (Good=4.52, Fair=3.98, Poor=3.92,  $F=3.72$ ,  $p=0.03$ ) received for continuing education. There was no adequate reported evidence in evaluating students' self-perception regarding DET at the CON Matara.

**Conclusion:** The perception of the nursing students regarding the DETs was 'generally positive'. Gender, student batch, PDDL, PDCL, and FSL were the factors that determined the nursing students' self-perception, regarding DETs.

**Keywords:** Self-perception, Digital Educational Technologies, Nursing students

**OP 1.5 MRC\_NUR\_074****Assessing Perceived Academic Stress and Internet Addiction Levels in Teenagers: A Study in a Selected School in the Western Province**

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**Introduction:** The ongoing academic pressure stemming from exams and assignments contributes to the pervasive stress experienced by teenagers. This stress has been further intensified this stress by the global pandemic, which has altered education through distance learning, reduced social interactions, and raised concerns about the potential adverse effects of increased internet use among adolescents on their mental well-being.

**Objective:** The study aimed to evaluate perceived stress levels and internet addiction among teenagers within their learning environment.

**Methodology:** A descriptive cross-sectional study was conducted at Sri Rahula Maha Vidyalaya, a mixed school in Mulleriyawa, Colombo district, The study utilized a whole sampling technique with a targeted population of 240 students in grades 10-13. Participants affected by illness or those absent on the data collection date were excluded from the study. The self-administered questionnaire comprised a demographic data survey, the DASS 21 (Stress Overcome Strategies Determining Questionnaire), and the Internet Addiction Level (IAL) scale. Ethical clearance for the study was obtained from the Ethics Review Committee of KIU (KIU/ERC/23/084).

**Results:** The findings revealed a predominantly male participant demographic (61.3%, n=147), with a significant proportion born in 2008 (45%, n=108). The majority were identified as Buddhists (97.1%, n=233) and reported four family members (63.7%, n=89). Smartphone usage was widespread (90.4%, n=217), followed by computers (8.3%, n=20), and tablets (1.3%, n=3). Regarding social media, WhatsApp was the most popular (55%, n=132), followed by Facebook (21.3%, n=51), YouTube (16.3%, n=39), TikTok (5.4%, n=13), and Instagram (0.8%, n=2). Most students demonstrated resilience to stress (89.6%, n=215), while a minority experienced mild (8.3%, n=20) or moderate stress (2.1%, n=5). Internet addiction varied, with a notable percentage abstaining (56.7%), followed by mild addiction (25%), moderate addiction (17.5%), and severe addiction (0.8%). The study identified 7% of the sample (n=18) as unhealthy due to stress from internet addiction and 14% (n=33) as mentally unhealthy, with an additional 12% (n=29) falling into this category.

**Conclusion:** A balanced and proactive approach is essential for educators, policymakers, and parents in Sri Lanka to address the pervasive influence of technology on adolescents. This emphasizes the need for strategies to mitigate stressors and potential internet addiction, fostering a healthier learning ecosystem.

**Keywords:** Stress levels, Internet addiction, Adolescent

## OP 1.6 MRC\_NUR\_075

## Prevalence and risk factors associated with Varicose Veins among Nursing Officers at Colombo South Teaching Hospital, Sri Lanka

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**Introduction:** Varicose veins, often seen as a cosmetic concern, can lead to significant complications such as pain, discomfort, leg cramps, ulceration, diminished quality of life, absenteeism, and mortality. Globally, approximately a quarter of adults, particularly women, are affected, with an estimated incidence of around 18.7% in Asian ethnic groups.

**Objective:** To assess the prevalence of varicose veins and identify associated risk factors among nursing officers at Colombo South Teaching Hospital in Sri Lanka.

**Methodology:** A study at Colombo South Teaching Hospital in Sri Lanka included 280 registered nurses from various units. The sample size was determined using the Yamane formula. A convenient sampling technique was employed to select respondents from the nurse population in this hospital. Inclusion criteria included nurses willing to share details, having at least one year of experience, and aged below 55. Data collection utilized a semi-structured interviewer administered questionnaire. Ethical clearance was obtained from the Ethical Review Committee, KIU (KIU/ERC/23/055). The analysis was performed using SPSS version 25.

**Results:** The study included 280 nurses, predominantly female (Females=275, Males=5). The age group 46-55 was the most common (47.9%), with fewer participants fell into the 35-45 age range. Varicose veins were diagnosed in 48 nurses (17.1%), while 82.9% had no diagnosis. Among those diagnosed, 8.3% received treatment, while 77.1% did not. Common symptoms included purple skin discoloration (70.8%), rash/eczema (6.3%), and skin ulcers (8.3%). Itching in the last two weeks associated with varicose veins in the two weeks was reported by 60.4%. Ankle swelling varied in duration, with 43.8% reporting none. Varicose vein pain or aching was highest at 47.9%, lasting more than 10 days at 6.3%. Concerns about appearance varied, with 90.1% not concerned. Risk factors such as prolonged standing (87.5%) and family history (20.8%) were significant. The analysis revealed no significant association between varicose veins and height ( $p=0.667$ ) but a significant relationship with weight ( $p=0.002$ ) and BMI ( $p=0.002$ ). Gender also showed significance ( $p=0.000$ ). Chronic diseases ( $p=0.000$ ), family history ( $p=0.000$ ), accidents/trauma ( $p=0.000$ ), and playing sports ( $p=0.000$ ) were significant risk factors, while birth control methods ( $p=0.127$ ) were not. Prolonged standing did not show significance ( $p=0.231$ ).

**Conclusion:** The study emphasizes high varicose vein prevalence among nursing officers, stressing the importance of recognizing risk factors and implementing preventive measures.

**Keywords:** Varicose veins, Prevalence, Risk factors

## OP 1.7 MRC\_NUR\_082

## Refusal of Hemodialysis among Patients with Chronic Kidney Disease attending Nephrology Clinic at Base Hospital Padaviya - Sri Lanka

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**Introduction:** The prevalence Chronic Kidney Disease (CKD) is increasing worldwide, leading to higher death rates. Hemodialysis (HD) is an effective treatment for end-stage renal disease (ESRD). However, many CKD patients tend to refuse HD due to various factors. This study aims to determine the rate of HD refusal and to understand the demographic factors influencing the choice of HD among ESRD patients in Padaviya, North Central Province of Sri Lanka, where CKD prevalence is high.

**Objective:** To determine the rate of refusal of hemodialysis and describe the factors associated with the refusal of hemodialysis by CKD patients attending the nephrology clinic at Base Hospital Padaviya.

**Methodology:** A descriptive cross-sectional observational study was conducted on patients with ESRD requiring immediate HD in the nephrology clinic, of Base Hospital, Padaviya, over a period of seven months (n=200). Participants were provided with an interviewer-administered questionnaire consisting of inquiries about socio-demographic status and reasons for refusing HD. Data were analyzed using cross-tabulation and chi-square significance test with SPSS version 26.

**Results:** The mean age was  $64 \pm 7$  years, with 67% (n=134) being over 60 years old, and 77.5% (n=155) being male. The majority of the population (69.5%, n=139) refused HD. Among those who refused HD, 48.5% (n=97) were males and 21% (n=42) were females. Patients aged between 44-60 years (17.5%) and farmers (21.5%) were more willing to undergo HD. Refusal was common among married participants (54.5%), those without income (25%), above 60 years of age (55%), and educated up to ordinary level (46.23%). However, low literacy levels had no impact on HD refusal.

**Conclusion:** The present study highlights the demographic factors underlying the refusal of HD among CKD patients. This insight enables healthcare professionals to provide appropriate support to patients throughout their decision-making process.

**Keywords:** Chronic kidney disease, Hemodialysis, Refusal of hemodialysis

## OP 1.8 MRC\_NUR\_085

## Awareness of risk factors for Cervical Cancers and Screening among Patients attending Gynecological Clinics at Base Hospital Tangalle

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**Introduction:** Cervical cancer is a global health concern with a rising incidence. Prevalence and mortality rates are notably high in low- and middle-income countries. Patient awareness of risk factors and the importance of screening is vital for early detection, which can significantly improve survival rates.

**Objective:** The study aimed to assess the awareness of cervical cancer risk factors, and screening among women attending gynecological clinics at Base Hospital Tangalle.

**Methodology:** A descriptive cross-sectional study was conducted among 414 women who were attending gynecological clinics at Base Hospital Tangalle, Sri Lanka. Data collection was conducted using an interviewer-administered questionnaire, which included sections on baseline characteristics, cervical cancer risk factors, and screening practices. Awareness of risk factors was assessed using a five-point Likert scale, ranging from (“strongly agree” to “strongly disagree”). The data were analyzed using SPSS version 25. The study received ethical approval the Ethics Review Committee, at KIU (KIU\_ERC\_22\_067).

**Results:** The mean age was 39±12 years. The majority were Sinhalese (86%, n=356), married (86%, n=354), employed (66%, n=275), and had received secondary education (61%, n=250). Most participants had heard about cervical cancer (93%, n=383) and many recognized Human papillomavirus(HPV) (68%, n=283), weakened immune system (57%, n=237), and having multiple sex partners (59%, n=245) as risk factors for cervical cancer. However, most were not aware of the long-term use of contraceptive pills (84%, n=349), infection with Chlamydia (57%, n=235), early marriage (77%, n=317), multiparty (80%, n=330), smoking (57%, n=235), and non-screening (77%, n=320) as risk factors. Regarding cervical cancer screening, the majority were not confident recognizing cervical cancer symptoms (74%, n=305), not aware of the availability of screening at well-women clinics, or at the Medical Officer of Health in Sri Lanka (68%, n=280), not aware of the availability of vaccination against cervical cancer (83%, n=342), and not aware that the HPV vaccine is introduced at school age (86%, n=357). Awareness of cervical cancer risk factors was associated with age (p=0.001), education level (p=0.001), occupation (p=0.06), body mass index (p=0.03), and suffering from chronic medical conditions (p=0.001) at the 95% confidence interval.

**Conclusion:** The awareness of cervical cancer risk factors and screening among patients attending gynecology clinics at Base Hospital Tangalle. Public awareness of cervical cancer, including its (risk factors, screening methods, the importance of early detection, prevention, and available treatment) options needs to be significantly improved to minimize complications and related mortality.

**Keywords:** Cervical cancer, Screening, Gynecology

## OP 1.9 MRC\_NUR\_091

### Perceived Stress and Quality of Life among Caregivers of Children with Asthma in a Selected Hospital in Colombo, Sri Lanka

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**Introduction:** Poorly controlled asthma is commonly with a lower Quality of Life (QOL) among children and can impose a significant burden on families and caregivers. Caring for a child with a chronic condition like asthma can be emotionally and physically demanding, leading to various stressors.

**Objective:** This study was designed to assess the perceived stress and health-related quality of life among caregivers of children with asthma in a selected hospital in Colombo, Sri Lanka.

**Methodology:** A descriptive cross-sectional study with consecutive sampling was conducted on a sample of 260 caregivers of children with asthma at selected hospital in Colombo, Sri Lanka. An interview-administered questionnaire was used to collect data. Perceived stress and Health-Related Quality of Life (HRQL) were assessed using the validated Perceived Stress Scale (PSS) and the Pediatric Asthma Caregivers' Quality of Life Questionnaire (PACQLQ). Descriptive statistics and Chi-square tests were used for data analysis. The scoring protocols of the questionnaires were followed to analyze perceived stress and health-related quality of life. Ethical approval was obtained from the Ethics Review Committee of KIU, Sri Lanka (KIU/ERC/23/063).

**Results:** Out of 260 caregivers, the majority were females (94%, n=245) and 56% (n=147) were between the ages of 30 and 40 years. Most of them had a moderate level of perceived stress (62%, n=161). QOL was assessed using the domains of activity limitation and emotional function. 65% (n=168) reported severe impairment in their daily activities and 72% (n=187) reported severe impairment in their emotional well-being. Activity limitation scores ranged from 4 to 21, with a mean score of 11.90±4.3, indicating a moderate level of activity limitation. Emotional function scores ranged from 11 to 48, with a mean score of 29.36±7.7, suggesting moderate impairment in emotional well-being. Overall, they had a moderate level of quality of life. Both activity limitation and emotional function are closely linked to the perceived stress levels of caregivers (p=0.001).

**Conclusion:** Overall, most caregivers of children with asthma experienced moderate levels of stress and quality of life. The perceived stress related to the QOL among these caregivers offers valuable insights into the challenges and implications of caring for a child with this chronic condition. Interventions and support programs can be developed to address the specific needs of caregivers of children with asthma, aiming to reduce stress and improve their overall well-being.

**Keywords:** Asthma, Quality of Life, Stress, Caregivers

## OP 1.10 MRC\_NUR\_096

## Gender-based Violence among Men and Women during COVID-19 referring to Mithuru Piyasa Center at Embilipitiya Hospital

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**Introduction:** Gender-based violence (GBV) refers to acts of physical, sexual, or mental harm inflicted upon individuals, particularly women, including threats or arbitrary deprivation of liberty, occurring in public or private life. In 2020, GBV became a global pandemic, affecting one in three women and one in five men worldwide.

**Objective:** This study aimed to assess gender-based violence among men and women referred to Mithuru Piyasa Center at Embilipitiya Hospital during the COVID-19 pandemic.

**Methodology:** A descriptive cross-sectional study was conducted among 100 participants recruited using a convenient sampling method. A pre-tested interviewer-administered questionnaire including sociodemographic details, patterns of GBV, and awareness regarding legal rights against GBV was utilized. Ethical approval was obtained from the Ethics Review Committee of KIU (ERC/21/221), and permission was granted from the Director of District General Hospital Embilipitiya. Data were analyzed using SPSS (version 26).

**Results:** Most of the participants (78%, n=78) were females and the mean age was 34±11 years. The majority were married (61%, n=61) and had educated up to GCE O/L (27%, n=27) while 29% (n=29) were employed with a monthly income of less than 37,000 LKR (31% n=31). A large majority of participants were aware of the patterns of GBV (88%, n=88), including death threats, sexual violence, threats over the phone and unknown GBV (93%, n=93) such as domestic violence on elderly mothers by their daughters or daughters-in-law. The majority (87%, n=87) of participants agreed that inquiring about GBV by health professionals constitutes an invasion of the survivor's family privacy, while 54% (n=54) disagreed that health professionals might endanger the survivor by breaching confidentiality. A significant portion (76%, n=76) believed premature labor was the commonest consequence of GBV. Awareness of obtaining a protection order from the magistrate to prevent further violence was adequate (80%, n=80), although 56% (n=56) disagreed that the magistrate could order perpetrators to attend counselling sessions. Common patterns of violence identified were getting death threats (97%, n=97), sexual violence (91%, n=91), threats over the phone (90%, n=90), and often getting scolded (90%, n=90).

**Conclusion:** In conclusion, GBV was prevalent during the COVID-19 pandemic, characterized by death threats, over-the-phone threats, and sexual violence as common patterns. Knowledge in GBV is essential for controlling future instances of such violence.

**Keywords:** Gender-based violence, COVID-19, Awareness

**OP 1.11 MRC\_NUR\_098****E-Health Literacy among patients who attended District General Hospital Embilipitiya, Sri Lanka**

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**Introduction:** Electronic health (e-health) refers to health information and services presented or developed via the Internet and associated technologies. Higher rates of e-health literacy are prevalent among developed countries, despite lower literacy levels in underdeveloped nations. E-health literacy is a crucial source of knowledge that may support better decision-making provided the low healthcare resources available. Therefore, it is important to assess e-health literacy levels among Sri Lankans.

**Objective:** This study aimed to assess the level of e-health literacy among patients who visited District General Hospital Embilipitiya, Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 406 consenting patients at District General Hospital Embilipitiya, after obtaining ethical approval (KIU/ERC/23/013) from the Ethics Review Committee of KIU. All consenting patients aged 18-65 were included, while those with acute psychiatric conditions, communication difficulties, and critical illness were excluded. An interviewer-administered questionnaire containing a validated eHealth Literacy Scale (eHEALS) was utilized to assess e-health literacy level. Data analysis was performed using descriptive statistics with IBM SPSS version 25.

**Results:** Most respondents were Sinhalese (98%, n=397), Buddhists (89%, n=362), and Females (59%, n=240), with an average age of 50±13 years. Most participants were presented with chronic illness (86%, n=348). A majority had education levels up to Ordinary Level or lower (63%, n=256), and were employed (65%, n=265). Of the participants, 57% (n=231) use the Internet and the majority accessed via smartphone devices (52%, n=210). However, 22% (n=51) of Internet users (n=231) never used it to search for health information. Only 11% (n=46), used wearable health monitoring devices or used health-related smartphone applications. The average e-HEALS score was 24.6±6.3, showing a significant moderate negative correlation ( $r=-0.523, p<0.001$ ) between e-health literacy and the participants' age. e-HEALS score ranged from 8 to 40 with higher score indicating better perceived skills in finding, evaluating, and using electronic information for decision making.

**Conclusion:** The study findings, suggest that e-health literacy levels improve with younger age. Therefore, it is recommended to raise awareness among patients, especially older people, to improve e-health literacy. Further, since this study was conducted in a single hospital, multicentered studies across rural, semi-urban, and urban areas are needed to generalize results to other patient populations.

**Keywords:** E-health literacy, Sri Lanka, e-HEALS

## OP 1.12 MRC\_NUR\_099

## Prevalence and factors associated with Work-related Musculoskeletal Discomfort among Nurses of Teaching Hospital Karapitiya - Sri Lanka

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**Introduction:** Work-related musculoskeletal discomforts (WMSD) are injuries affecting the body's musculoskeletal system, in certain working environments. WMSDs are common among nurses globally due to the nature of the profession which impacts directly on patient care. Therefore, evaluating WMSDs among Sri Lankan nurses to advocate preventive measures, is a timely need.

**Objective:** To determine the prevalence and factors associated with work-related musculoskeletal discomforts among nurses at Teaching Hospital Karapitiya, Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 350 consented nurses at Teaching Hospital Karapitiya, after obtaining ethical approval from the Ethics Review Committee, KIU (KIU/ERC/21/123). A pre-tested self-administered questionnaire including the Nordic Musculoskeletal Questionnaire (NMQ) was used to assess WMSD among nurses. Analysis was performed using descriptive statistics and Chi-square test via IBM SPSS version 25.

**Results:** Of the 350 participants, the majority were married (86%, n=300), and female nurses (85%, n=297), with a mean age of 41±8 years. Most nurses (90%, n=315) usually engaged in lifting and moving the patients and rarely had rest time during working hours (41%, n=145). The prevalence of WMSDs among nurses during the last 12 months was 87% (n=306), with the majority reported aches, pain, or discomfort in the lower back region (54%, n=188) and knee(s) (51%, n=177). The most affected body region in female nurses was the lower back (55%, n=191) while male nurses complained of the knee(s) (60%, n=211). A significant association was observed between the presence of WMSDs and the use of the logrolling method for patient transfer (p<0.001) and working units (p<0.001). The study showed that 50% (n=152) of nurses who had WMSDs rarely used sliding boards and sliding sheets (87%, n=265) to transfer their patients. Operation theatres had the highest percentage of nurses with low back pain (79%, n=48) followed by ICU (54%, n=14), medical wards (47%, n=34), and other special units (46%, n=34).

**Conclusion:** The prevalence of the WMSDs among nurses at Teaching Hospital Karapitiya was found to be 87%, with significant associations observed between WMSDs and the working unit as well as the use of the logrolling method for patient transfer. However, further studies across Sri Lanka with a larger sample size are recommended to confirm these findings.

**Keywords:** Work-related musculoskeletal discomfort, Nurses, Sri Lanka



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# Multidisciplinary Research Conference 2023

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## Oral Presentations

**Technical Session 2:  
Health & Multidisciplinary Sciences**

## OP 2.1: MRC\_BMS\_009

**Toxicity and Biocompatibility of *Bacopa monnieri* (L.) Wettst Aqueous Extract in Various Developmental Stages of Zebrafish using the FET293 Bioassay**

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**Introduction:** *Bacopa monnieri* (L.) Wettst, known as Lunuwila, is a herbal plant found in Sri Lanka valued in Ayurvedic medicine for its therapeutic potential. This study investigates its toxicity using Zebrafish (*Danio rerio*) embryos, addressing safety concerns, and highlighting its broader significance.

**Objective:** The objective this study was to assess the biocompatibility and toxicological properties of *B. monnieri* aqueous whole plant extract using Zebrafish embryo assay following the guidelines of the Organization for Economic Cooperation and Development (OECD).

**Methodology:** The whole plant was extracted using the maceration method with distilled water, and the extracts were subsequently freeze-dried. Tenfold dilutions were prepared ranging from 0.001 mg/ml to 10 mg/ml, based on the LC<sub>50</sub> obtained from the brine shrimp lethality assay. Wild-type Zebrafish embryos were exposed to different concentrations of the whole plant extract, and hatch rate, mortality rate, survival rate, heart rate, and developmental deformities were observed at specific time points. Statistical analysis was performed using GraphPad Prism 9 software.

**Results:** Throughout the treatments, control embryos exhibited normal hatching patterns, with all embryos hatching by the 72-hour time point. Similarly, the 0.001 mg/ml dose of *B. monnieri* followed this hatching pattern without significant deviation from controls. However, the majority of embryos did not hatch at higher doses (1 and 10 mg/ml) at any time point. Zebrafish embryos exposed to 0.001 mg/ml doses survived across all examined time points (24, 48, 54, 72, 80, and 96 hpf) similar to non-treated controls with no recorded deaths. In high-dose experiments, survival of embryos significantly decreased at 0.1, 1, and 10 mg/ml treatments during 48, 54, 72, 80, and 96 hpf time points. Embryos exposed to a 10 mg/ml dose exhibited no survival from 54 hpf onward. Embryos exposed to various extract concentrations exhibited heart rates within the range of 145.0±2.0 to 158.2±2.0 beats/min. No structural deformities were observed to be significantly lower at doses ranging from 0.001-10 mg/ml compared to the control. The number of spinal curvatures and pericardial edema were comparatively lower, but spinal curvatures were detectable at all tested concentrations, while pericardial edema was observed only at a concentration of 0.001 mg/ml.

**Conclusion:** Therefore, this study reveals dose-dependent toxic effects of *B. monnieri* whole plant extract on Zebrafish embryos, underscoring potential risks associated with higher concentrations. Caution is recommended for applications of elevated extract doses due to significant impacts on embryonic development.

**Keywords:** Biocompatibility, *Bacopa monnieri* (L.) Wettst, Zebrafish embryos

**OP 2.2: MRC\_BMS\_010****Assessment of Standard Specifications of Selected Commercially Available Hand Sanitizers**

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**Introduction:** The Center for Disease Control and Prevention (CDC), the World Health Organization (WHO) and many other health experts promote hand hygiene as the most important method to prevent hospital-acquired infections. In both healthcare and community settings, hand sanitizers have become a popular alternative to traditional hand washing with soap and water. Though a wide variety of sanitizer products are available there are reported cases of side effects like skin irritation. Therefore, it is essential to evaluate whether these sanitizer products have met the standard specifications set by the authoritative bodies.

**Objective:** This study aims to assess the standard specifications (pH, antimicrobial efficacy, and visible impurities) of selected commercially available hand sanitizers.

**Methodology:** Commercially available hand sanitizer products from different brands were included in the study. Pre-calibrated pH meter was used to check the pH of each sample. Each sanitizer product was observed for visible impurities on a clean white background such as a white sheet of paper. Fifty (50) individuals were enrolled to determine the antimicrobial activity of the sanitizer products. Skin swabs from the palms of each participant were taken before and after the application of sanitizer products and their colony count reduction before and after the application of sanitizer products was used to determine the antimicrobial efficacy of each product.

**Results:** Among the tested 10 sanitizer samples, seven (07) were colorless, two were bluish and one was orange in color. The pH of the specimens ranged from  $6.9 \pm 0.17$ . All the samples were in the standard pH range. Antimicrobial efficacy was measured by colony count reduction of the samples. It is calculated by Subtracting the number of colonies on the treated plate from the number of colonies on the control plate. Normally the tested products showed the mean value of antimicrobial efficacy ranging from 55.7% to 93.5%. However, visible impurities were observed as white particles and debris in one specimen.

**Conclusion:** Though there were changes in the macroscopic appearance of the sanitizer products, any effect on the antimicrobial activity was determined. All the tested hand sanitizer products met the specifications set by regulatory bodies.

**Keywords:** Hand sanitizer, Effectiveness, Hand hygiene

## OP 2.3: MRC\_BMS\_011

## Use of Allele-specific PCR to differentiate A1 and A2 variants of Milk $\beta$ Casein Gene among Cattle in North Central Province, Sri Lanka

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**Introduction:** Milk is a nutrient-dense food and a major source of high-quality proteins, consisting of 80% casein and 20% whey proteins. Beta casein accounts for 35% of the total casein. Milk containing the A2 Beta casein variant has gained popularity in many countries due to health-promoting properties compared to the A1 variant which has been linked to certain human ailments. Thus, cattle selection for the A2 trait has become important. Therefore, a feasible technique is essential for differentiating A1 and A2 traits in cattle.

**Objective:** The present study aimed to differentiate A1 and A2 traits of cattle in Sri Lanka using allele-specific Polymerase Chain Reaction.

**Methodology:** DNA was extracted using a commercial kit (Promega, USA) from whole blood samples of 198 cross-bred local cattle in North Central Province from July 2019 to December 2020. Polymerase Chain Reaction (PCR) yielding a fragment of 854 bp was performed to detect A1 and A2 alleles, using a common forward primer (5'GCCAGATGAGAGAAGTGAGG 3') with A1 and A2 specific reverse primers, following published protocols.

**Results:** The frequency of A1A1, A1A2, and A2A2 genotypes revealed by PCR were 5%, 93%, and 2% respectively. The frequency of A1 allele was 51.5% and that of A2 was 48.4%. Crossbreeding with exotic breeds during the last few decades may have led to the observed higher frequency of A1 allele in the tested animals.

**Conclusion:** The allele-specific PCR technique was demonstrated to be a rapid and effective method to detect A1 and A2 genotypes in Sri Lankan cattle. Human health could benefit by consuming milk with desirable beta-casein (A2), achieved by genotyping A1 and A2 traits in cattle. Genetic analysis using allele-specific PCR of the breeding herds is needed to increase the A2A2 genotype among dairy cattle to produce milk with desirable A2 Beta casein. In the future, DNA sourced from the milk of cattle is recommended to be used in this PCR technique.

**Keywords:** Cattle, A1A2 PCR, Nutrient-Dense food, Sri Lanka

**OP 2.4: MRC\_BMS\_034****The Burden of Antibiotic Resistance of Coliform species Isolated from Urine Culture Samples; A Retrospective Study at Ruhunu Hospital, Galle, Sri Lanka**

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**Introduction:** Urinary tract infections (UTIs) are one of the most common bacterial infections affecting individuals of all ages, with a substantial global burden on healthcare systems. Antibiotic resistance among urinary coliform bacteria is a concerning issue.

**Objective:** The objective of this study was to determine the resistance patterns of antibiotics in Coliform species isolated from urinary tract infections among patients.

**Methodology:** A retrospective study was done in the clinical microbiology laboratory, Ruhunu Hospital, Galle, Sri Lanka from January 2023 to March 2023. Urine culture isolates with a colony count of  $>10^5$  CFU/ml were considered positive urine cultures. Data analysis was done using SPSS software version 26 and descriptive statistics were applied. Socio-demographic factors, prevalence of uropathogens, and antibiotic resistance rates were expressed as frequencies and percentages.

**Results:** Out of 481 culture-positive samples, 329 of them (68.4%) were from women, and most isolates were of Coliform species (83.4%, n=401). Coliform species showed the highest resistance to first-line drugs like Nalidixic acid (58.4%, n=225), Ciprofloxacin (44.7%, n=147), followed by Amoxicillin-Clavulanic acid (43.9%, n=176), Norfloxacin (42.3%, n=143), Co-trimoxazole (33.4%, n=134), and Cefuroxime (32.7%, n=131). The least resistance was observed for Imipenem (4.3%, n=06), Meropenem (4.3%, n=06), Nitrofurantoin (6.8%, n=27), Amikacin (13.7%, n=19), and Gentamicin (16.2%, n=65) respectively.

**Conclusion:** Our findings strongly emphasize that women are much more prone to UTIs than men and the emergence of higher resistance with the most commonly prescribed antibiotics for UTIs. Indiscriminate antibiotic use for UTIs can raise resistance rates and cause treatment failure. Prescriptions should be based on culture and sensitivity results to improve the effectiveness of treatment.

**Keywords:** Antibiotic resistance, Coliform species, Urinary tract infections (UTIs)

## OP 2.5: MRC\_BMS\_036

## Enhancing Zebrafish Facility Management and Husbandry Techniques to Comply with OECD Guidelines and Optimization of Embryo Production using Fish Ratios and Pooling Strategy

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**Introduction:** Zebrafish (*Danio rerio*) have emerged as a valuable model organism in molecular and toxicology studies due to their genetic similarity to humans and rapid reproduction. And it has numerous beneficial features. Since Zebrafish husbandry and management are crucial for embryo production, this study was designed to find a better strategy to optimize fish embryo production.

**Objective:** This study investigates how to maintain and care for Zebrafish facilities and determine embryo production using several male-to-female ratios and trying on pooling strategy.

**Methodology:** Wildtype male and female adult Zebrafish were maintained by following an Organization for Economic Cooperation and Development (OECD) guidelines, Fish Embryo Toxicity (FET) test and a photoperiod of 12L: 12D. The chemical parameters of the aquarium water including pH (7±0.5) and electric conductivity (470-530 µs/m) were monitored daily and nitrates (<0.009gm/l), nitrite (8-12 mg/l) and ammonia levels (<0.05 mg/l) were monitored weekly. Nutritional requirements, water quality management protocols, and chemical parameters were measured to ensure proper embryo production. In the breeding tank preparation procedure, although literature indicated that they tried on a 1:2 female-to-male ratio (used as a control), here we tried on female-to-male ratios including, 1:1, 1:2, 1:3, 2:2, 2:3, and 2:4 (pooling method) was tried. Statistical analysis was performed using GraphPad Prism 9 software.

**Results:** According to the observations after breeding tank preparation, a female-to-male ratio respectively 1:1 produced ~120/180 embryos, a 1:2 ratio produced ~200/250 embryos, ~250/280 embryos were produced in a 1:3 setup, ~200/250 eggs were produced at 2:2 breeding preparation and, 2:3 fish ratio produced around ~300 embryos. Further, around ~400-500 embryos were laid by the fish according to the 2:4 fish ratio in the pooling method. According to the statistical analysis,  $p < 0.0001$ ; values represent mean ± SEM (n= 4-6), and  $R^2 = 0.92$ .

**Conclusion:** This study collectively demonstrates the essential elements of Zebrafish husbandry and maintenance, along with strategies for optimizing embryo yield in an OECD-compliant Zebrafish animal housing facility. According to the observation higher embryo production was identified at the female-to-male ratio 2:4 breeding setup and it concluded pooling method of the female-to-male ratio gave a higher embryo production.

**Keywords:** Embryo production, Fish embryo, Husbandry, Zebrafish (*Danio rerio*)

## OP 2.6: MRC\_BMS\_042

## In-vitro Antibacterial Activity of *Lawsonia inermis* flower used as Ayurvedic Medicine in Sri Lanka

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**Introduction:** Novel antibacterial medications are essential to combat emerging antibacterial resistance around the world. Medicinal plants harbour numerous antibacterial compounds that can be utilized effectively against bacterial skin infections. This study was conducted to determine the antibacterial effect of the flower extract of *Lawsonia inermis* against *Staphylococcus aureus* and *Pseudomonas aeruginosa*.

**Objective:** To determine the antibacterial activity of the flower aqueous extract of *Lawsonia inermis* against *Staphylococcus aureus* and *Pseudomonas aeruginosa*.

**Methodology:** *Staphylococcus aureus* and *Pseudomonas aeruginosa* were obtained from the biomedical laboratory of KIU. Plant materials were collected from the Colombo district. Plant authentication has been obtained from the botany division, Bandaranayake Memorial Ayurvedic Research Institute, Nawinna, Maharagama, Sri Lanka. Plant extracts were obtained by decoction method and a concentration series was prepared. The aqueous extract was tested using the agar well diffusion and broth macro dilution methods according to the CLSI guidelines which facilitate comparative analysis. Both assays were triplicated.

**Results:** Among the test organisms, the highest zones of inhibition were observed in *Staphylococcus aureus* with  $26.67 \pm 0.58$  mm and *Pseudomonas aeruginosa* with  $19.67 \pm 0.58$  mm zones of inhibition at 200 mg/ml. Minimum inhibitory concentrations were obtained in *Staphylococcus aureus* ( $133.33 \pm 57.74$  mg/ml), and *Pseudomonas aeruginosa* ( $166.67 \pm 57.74$  mg/ml) after 24-hour incubation. Gentamicin (10 µg/ml) was used as a positive control for both bacteria.

**Conclusion:** *Lawsonia inermis* flower aqueous extract has shown antibacterial activity against *S. aureus* and *P. aeruginosa* proving that the aqueous extract of *Lawsonia inermis* flower possesses antibacterial properties. Thus, the aqueous extract of *Lawsonia inermis* flower could be used to treat *S. aureus* and *P. aeruginosa* associated skin infections and may be used for developing antibacterial formulations.

**Keywords:** Aqueous extract, *Lawsonia inermis*, Antibacterial activity, Skin infections

## OP 2.7: MRC\_BMS\_081

## In-vitro Antibacterial Activity of *Punica granatum* Leaves Used as Ayurvedic Medicine in Sri Lanka

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**Introduction:** *Punica granatum*, also known as “*Delum*”, is a commonly used Ayurvedic medicinal plant in Sri Lanka. It is used for the treatment of urinary infections, skin diseases, and other conditions by Ayurveda practitioners. The most popular variety called “*Nimali*” has been taken for this research. The leaves of *P. granatum* contain various phytochemicals and exhibit antibacterial, anti-inflammatory, and antioxidant actions.

**Objective:** To investigate the *in vitro* antibacterial activity of *Punica granatum* leaf extract against *Pseudomonas aeruginosa* and *Staphylococcus aureus*.

**Methodology:** The decoction method was used for the extraction process because it can efficiently extract water-soluble elements. A weight of 10g powder of sample was dissolved in 50 ml of sterile distilled water and boiled for 5-15 minutes. Finally, a series of concentrations were prepared. Agar well diffusion and broth microdilution assays were examined according to CLSI guidelines (M02 and M07). *Staphylococcus aureus* (ATCC 25923) and *Pseudomonas aeruginosa* (ATCC 27853) were tested for the antibacterial activity of aqueous extracts, and both assays were done in triplicate for portions of the same extractions.

**Results:** Among the test organisms', the highest zones of inhibition were observed at 200.0 mg/ml and demonstrated antibacterial activity against *Staphylococcus aureus* (28.0±1.0 mm) compared to Gentamicin (29.67±0.58 mm) and *Pseudomonas aeruginosa* (21.0±1.0 mm) compared to Gentamicin (24.00±0.00 mm) respectively. Minimum inhibitory concentrations were obtained in *Staphylococcus aureus* (66.7±28.9 mg/ml), and *Pseudomonas aeruginosa* (133.3±57.7 mg/ml) after 24 hours of incubation. For both bacteria, Gentamicin (10 µg/ml) was used as the positive control.

**Conclusion:** This study revealed that *Punica granatum* leaves possess antibacterial activity against *Staphylococcus aureus* and *Pseudomonas aeruginosa*. Therefore, “*Delum*” leaves could be used to treat and develop novel antibacterial formulations.

**Keywords:** *Punica granatum*, Leaves, Antibacterial activity

**OP 2.8: MRC\_PSY\_015****Polydrug use among Advanced Level students in Western Province, Sri Lanka**

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**Introduction:** The majority of adults with substance use disorder started using substances during their adolescence. Individuals who simultaneously use more than two substances or consecutively consume them are categorized as poly-drug users and poly-drug use in adolescents is attributed to significant psychological, psychosocial, and health consequences. The empirical evidence is sparsely related to poly-drug use among adolescents in Sri Lanka.

**Objective:** To assess the poly-drug use among Advanced Level students in Western Province.

**Methodology:** A descriptive cross-sectional study was conducted among conveniently enrolled consented 422 Advanced Level students ( $\geq 18$  years of age) in Western Province. Ethical approval was obtained by the Ethical Review Committee at KIU. Data was collected using a self-administered questionnaire. Substance use and attributed health risks were measured using the Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST). Due to the descriptive nature of the data, descriptive statistics were used to analyze the data.

**Results:** Nearly 1 out of every three (36.5%,  $n=154$ ) Advanced Level students in Western Province reported that they have used at least one substance during their lifetime. Of the polydrug users, 61.7% ( $n=95$ ) were polydrug users. During the past three months 75.3% ( $n=116$ ) used alcoholic beverages, 57.8% ( $n=89$ ) used tobacco products, 32.5% ( $n=50$ ) used cannabis, 12.3% ( $n=19$ ) used amphetamine and 9% ( $n=14$ ) were opioids users. The most reported combination of licit drugs is alcohol and cigarettes (44.8%,  $n=69$ ). The most reported combination of illicit drugs is cannabis and amphetamine (55.2%,  $n=85$ ).

**Conclusion:** A considerable percentage of Advanced Level students were substance users and most of them were poly-drug users. There will be a substantial risk for Sri Lankan adolescents for substance use disorder which may impact their health and wellbeing. The prevention and treatment interventions to eradicate substance use and poly-drug use in adolescents are a timely necessity.

**Keywords:** Poly-drug users, Advanced Level Students, Substances

## OP 2.9: MRC\_PSY\_049

## Relationship between Perception and Performance in engaging in Online Learning among Undergraduates in Selected Universities in Colombo District

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**Introduction:** Lockdown and social distancing have greatly affected the educational setting. This situation forced universities to physically close down and lectures to be delivered online. Understanding the learning climate is essential for improving the perception and performance of students.

**Objective:** This study aims to assess the relationship between the perception and performance in engaging in online learning among undergraduates in Universities in Colombo District.

**Methodology:** A cross-sectional descriptive study was conducted among 246 undergraduates from selected universities in the Colombo district. Ethical approval was granted by the Ethics Review Committee of KIU (KIU/ERC/22/057). The participants were selected through convenient sampling. This study used a -five-point Likert scale questionnaire, background information on the online environment, statements about the perception of online learning, and statements about performance in online learning. Pearson correlation was carried out using SPSS version 25.

**Results:** Out of the 246 respondents, 20.7% (n=51) of them were males and 79.3% (n=195) of them were females. The results showed a significant relationship between perceptions among undergraduate students engaged in online learning ( $r=.296$ ,  $p<0.005$ ). Students also had significant relationship between performances in online learning ( $r=.204$ ,  $p<0.05$ ).

**Conclusions:** This study identified undergraduate university students who had a positive perception of online education. This perception makes the students believe in the effectiveness of online learning and causes them to make their performance better as well. This research will support evidence-based practices and inform the design and implementation of online education in the future.

**Keywords:** Online learning, Perception, Performance, University Students

## OP 2.10: MRC\_PSY\_068

## Association among Emotional Intelligence, Job Stress and Work-life Balance: A Study on Employees in IT Sector in the Colombo District

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**Introduction:** Maintaining a consistent Work-Life Balance (WLB) is a challenge addressed by many employees to effectively manage their professional and personal lives. In the context of the IT sector in Colombo, Sri Lanka, the increased rate of job stress could be seen as a problem due to night shifts, lengthy workdays, and several other factors that have disrupted their WLB. A variety of coping mechanisms have been applied to deal with job stress, particularly Emotional Intelligence (EI).

**Objective:** This study explores the association between emotional intelligence, work-life balance, and job stress among IT sector employees in the Colombo District of Sri Lanka.

**Methodology:** A mixed-methods approach was employed to incorporate both primary and secondary data sources. A questionnaire based on a five-point Likert scale was distributed among 100 employees in the IT sector. SPSS software was used for statistical analyses.

**Results:** The findings of this study revealed a positive correlation between EI and WLB ( $r = 0.65$ ,  $p < 0.001$ ), indicating that employees with higher levels of EI demonstrate a higher likelihood of WLB. Conversely, EI had a negative relationship with job stress ( $r = -0.45$ ,  $p < 0.01$ ), indicating that individuals with greater EI tend to experience lower levels of job stress. Moreover, job stress had a negative relationship with WLB ( $r = -0.50$ ,  $p < 0.001$ ), emphasizing the unfavorable impact of job stress on WLB.

**Conclusion:** The results of this study provide valuable insight for IT professionals to identify the reasons for job stress and the potential to enhance EI to maintain proper WLB. Furthermore, this study opens doors for future research in this domain, addressing the empirical and theoretical gaps.

**Keywords:** Emotional intelligence, Work-life balance, Job stress

## OP 2.11: MRC\_PSY\_080

## The Impact of BMI and Body Image Perception on Emotional Health among the Undergraduates of a Selected University in Colombo District

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**Introduction:** Body Mass Index (BMI) values are shown to be associated with body fat percentage and future health risks. A high BMI is one of the factors that predict future morbidity and mortality. The influence of body image perception and emotional health has been identified as a psychological link between obese people. Mental and emotional well-being concerns individuals' feelings of well-being, capacity to handle life challenges, and awareness of both their own and other people's feelings.

**Objective:** This study aimed to assess the impact of BMI and body image perception on emotional health among undergraduates in the Colombo district.

**Methodology:** This was a cross-sectional descriptive study conducted among 219 participants selected through convenient sampling, from a selected university in the Colombo district. Ethical approval was obtained from the Ethics Review Committee of KIU (KIU/ERC/22/069). The Data were collected using a demographic questionnaire for basic information and BMI, the body Shape Questionnaire (BSQ-8C), and the Positive and Negative Affect Scale (PANAS).

**Results:** There were 173 females and 46 males. The result showed that 15.5% (n=34) of undergraduates were in the obese category ( $\geq 27$ ). The BMI and body image perception showed a statistically significant positive correlation ( $r=0.115$ ,  $p=0.011$ ) and a statistically significant positive correlation with emotional health ( $r=0.115$ ,  $p=0.011$ ) according to 0.05 significant level.

**Conclusion:** The study highlights that there is a statistically significant but weak correlation between BMI and body image perception on emotional health. It shows that body image perception is also one factor that affects the emotional health of the undergraduate population. The study shows statistically significant at the 0.05 level. It shows that there is a negative relationship between BMI and emotional health among undergraduates in the Colombo district.

**Keywords:** BMI, Body image perception, Emotional health

**OP 2.12: MRC\_ENG\_008**

**Relationship between Role of Power and Existence of Humans;  
A Comparative and Critical Study based on the Selected Novels, *The Heart of  
Darkness* by Conrad, *The Hunger Games* series by Suzanne Collins,  
and *The Lord of the Rings* by J. R. R. Tolkien**

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**Introduction:** The concept of power with diverse definitions and interpretations has evolved over different time domains constructing and reconstructing its definition and scope. The relationship between the role of power and the existence of humans can be identified as a subject matter that can be given contemporary validity since it appears in every part of the lives of humans.

**Objective:** This study aimed to analyze the influential impact that power exercises on human existence, socio-cultural and socio-political spheres and to scrutinize how the role and images of power have been employed as a forceful tool in manipulating the sociological and psychological aspects of individuals.

**Methodology:** Content analysis, discourse analysis, and structural analysis were used in collecting and analyzing the relevant data. The study focused on analyzing the novels *The Heart of Darkness* by Conrad, *The Hunger Games* series by Suzanne Collins, and *The Lord of the Rings* by J. R. R. Tolkien. The theories and ideologies of Thomas Hobbes, Michel Foucault, Talcott Parsons, Max Weber, Friedrich Nietzsche, and Karl Marx were applied in producing an in-depth analysis.

**Results:** The novel 'Heart of Darkness' by Joseph Conrad portrays the power wielded by the Europeans over the Africans using imperialism in pursuit of satiating their desire to gain more power by dominating the underdeveloped lands. The three volumes of the *Lord of the Rings* portray how the possession of the rings induces individuals to test resistance to institutionalized power and the power of others within the community. The sovereign power of the totalitarian regime has been portrayed in the fiction *Hunger Games*. The individual's instinctual desire to gain power has been portrayed through the roles of Kurtz in *Heart of Darkness* and Sauron in *The Lord of the Rings*. In studying the perspectives of Thomas Hobbes, it can be interpreted that he has perceived power through diverse viewpoints thus elaborating on its different roles, functions, and holds in the social sphere (Augustin Riška, 2006). The imperialism in *The Heart of Darkness*, the totalitarianism in *Hunger Games*, and the mythological power in *The Lord of the Rings* can be closely related to Hobbes's notions of power.

**Conclusion:** The relationship between the role of power and human existence tends to go hand in hand everywhere where the survival of humans and competition for wealth and power are concerned and that relationship is comprised of aspects such as authority, dominance, despotism, greed, desire, motivation, repression, liberation, etc. which can be identified as the integrated elements of each individual life.

**Keywords:** Power, Authority, Human suppression



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# Multidisciplinary Research Conference 2023

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## Oral Presentations

**Technical Session 3 : Management**

**OP 3.1 MRC\_HRE\_003****Impact of Implementation of Green HRM Practices on Job Performance of Executive-level Employees: A Study Based on a Selected Leading Apparel Manufacturing Company in Colombo District**

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**Introduction:** Enterprises struggle to persist and succeed in the dynamic business environment by adopting the most innovative business and environmental trends within the Sri Lankan contemporary business and Human Resource Management (HRM) context. The Green Human Resource Management (GHRM) concept is still emerging and organizations have started to realize the importance of these practices. They have started to align their organizational and strategic goals with eco-friendly HR practices.

**Objective:** This study aims to discuss the impact of the implementation of GHRM practices on the executive job performance of a selected apparel manufacturing company in Sri Lanka.

**Methodology:** The cross-sectional study was conducted among 58 consenting executive-level employees selected via a simple random sampling method. The required data for the study was collected via a survey in printed form and Google form, over a period of four weeks. The survey contained structured questions on GHRM practices on executive job performance.

**Results:** According to the sample, there were 68% (n = 39) of male employees, and the majority were between the ages of 31 and 35 at the selected apparel manufacturing company. The simple linear regression coefficient (R = 0.817) and Pearson's correlation coefficient (r = 0.717, p = 0.000) outputs ensure that the GHRM practices indicate a positively significant impact (81.7%) and relationship with executive job performance. Therefore, output emphasizes that there is a significant impact on the implementation of GHRM practices on executive job performance.

**Conclusion:** According to the findings of this study, there is a significant impact of GHRM practices on executive job performance. It is proposed that regular training courses need to be conducted to enhance the employees' and managers' environmental knowledge and awareness. Organizations should provide relevant training that is required to become typical employees into green-oriented employees. At the same time, creating a green culture will improve environmental-related knowledge, awareness, and enhance employee performance.

**Keywords:** Environmental sustainability, Green HRM practices, Green lifestyle, Green human resource management, Job performance

## OP 3.2 MRC\_HRE\_009

## The Impact of Human Resource Information System (HRIS) on Employees' Job Performance at Hayleys Group

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**Introduction:** Human Resource Information Systems (HRIS) have become integral components of modern organizations, revolutionizing the way human resource departments manage employee-related processes and information. From the Sri Lankan perspective, this concept is relatively new in the private sector, playing a distinct role in the current Sri Lankan economy. The lack of employee job performance is one of the major challenges faced by the Hayleys company.

**Objective:** This study aims to investigate the impact of HRIS on employee job performance with special reference to the Hayleys Group since it uses an effective human resource information system.

**Methodology:** The study falls into the positivism paradigm and cross-sectional study. The sample of 108 HR executives in Hayleys Group who are using HRIS was considered by following the simple random sampling method. Data was gathered using a questionnaire with the use of a survey technique and correlation and regression analysis were performed to analyze the data.

**Results:** The Employee Self-Service system ( $r = 0.772$ ,  $p < 0.05$ ) and the Time and Attendance system ( $r = 0.247$ ,  $p < 0.05$ ) have both shown a positive relationship with employees' job performance. A positive influence was observed from the Employee self-service system and Time and attendance system on Employees' Job Performance (Beta coefficient-0.224  $p < 0.05$ , Beta coefficient 0.195  $p < 0.05$ ).

**Conclusion:** The study shows that HRIS has an impact on Employees' Job Performance at Hayleys Group. Future researchers are encouraged to consider other systems including recruitment and selection, HR planning and analysis, and Payroll.

**Keywords:** Employee's performance, Human Resource Information System, HR professionals

## OP 3.3 MRC\_HRE\_013

## Impact of the Factors on Job Seekers' Intention to Use E-recruitment: Special Reference from the State Universities in the North and Eastern Provinces

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**Introduction:** Nowadays technology plays a major role in every single key aspect of Human Resource Management. Because of technological advancement, e-recruitment is getting generalized everywhere. Most job seekers try to use e-platforms for searching and applying for jobs.

**Objective:** This study aims to explore the impact of Perceived Usefulness, Perceived Ease of Use, and Perceived Trust on job seekers' intention to use e-recruitment.

**Methodology:** A structured standard questionnaire was sent to 242 final-year Management undergraduates who were about to graduate from state universities in North and Eastern Provinces, selected through a random sampling technique. Data was collected via Google form on Perceived Usefulness, Perceived Ease of Use, and Perceived Trust on job seekers' intention to use e-recruitment.

**Results:** The results indicated a significant positive relationship between PU and job seekers' intention to use e-recruitment ( $B= 0.443$ ,  $p< 0.001$ ). A moderate positive relationship exists between PEU and job seekers' intention to use e-recruitment ( $B= 0.417$ ,  $p= 0.001$ ), and no significant relationship was observed between PT and job seekers' intention to use e-recruitment ( $B= -0.176$ ,  $p= 0.049$ ).

**Conclusion:** Findings showed that there was a positive relationship between PU, PEU, and job seekers' intentions to employ electronic recruiting and a weak relationship between PT and job seekers' intention to use e-recruitment. Furthermore, this research provides comprehensive details to Human Resource professionals on the effective use of e-recruitment websites and the tactics to attract potential job seekers for employment.

**Keywords:** E-recruitment, Perceived usefulness, Perceived ease of use, Perceived trust

OP 3.4 MRC\_ACF\_005

## Factors Affecting the Implementation of Cloud Accounting in the Finance and Banking Industry in Sri Lanka

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**Introduction:** Technology plays a crucial role in the finance sector, increasing efficiency and profitability. Cloud-based systems, such as cloud accounting, offer more alternatives and services than traditional systems. Therefore, the finance and banking industry in Sri Lanka has unique aspects that require adaptation to cloud accounting.

**Objective:** This study aims to determine the factors associated with cloud accounting in finance and banking industry in Sri Lanka.

**Methodology:** This study was conducted among 150 accounting and finance-related employees of 31 listed companies and 14 listed banks which were selected through a convenience sampling technique. The study used a self-administered questionnaire consisted of five questions on perceived usefulness, quality of service, firm image, knowledge of cloud accounting, and cloud security to gather data. The collected data was analyzed by using multiple linear regression.

**Results:** The multiple linear regression outputs ensure that all the independent variables indicated a positively significant relationship with cloud accounting implementation except the image of the firm. Research has identified that there is limited evidence specific to Sri Lanka's adoption of cloud accounting since Sri Lanka is still a developing country.

**Conclusion:** Research indicates that employees believe cloud accounting is important in the banking and finance sector. However, organizations should consider, factors impacting its implementation. Further, companies considering better knowledge, quality output, cloud security, and usefulness of cloud-based systems are recommended to implement this cloud-based accounting.

**Keywords:** Cloud accounting, Implementation, Banking and finance sector, Multiple linear regression

OP 3.5 MRC\_ACF\_006

## Relationship between the Number of Independent Directors and the Number of Key Audit Matters (KAM) Disclosures

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**Introduction:** Key audit qualities are determined by several factors. Therefore, the number of independent factors are affected by the Key Audit Matters. Those matters provide additional information to intended users of the financial statements to assist them in understanding those matters that, in the auditor's professional judgment, were of most significance in the audit of the financial statements of the current period.

**Objective:** The objective of this study is to evaluate the relationship between the number of independent directors and the number of key audit matters disclosures.

**Methodology:** The quantitative study was conducted among 287 companies in and 16 non-financial models. The research data were collected from annual reports of Colombo Stock Exchange-listed companies for the fiscal years - ends 2018, 2019, 2020, and 2021. Data were analyzed using descriptive statistics, correlation analysis, and multiple regression analysis tools.

**Results:** The research findings reveal that auditor's litigation risk (Big 4 audit firms) is positively associated with the number of Key Audit Matters. Further independent directors also play a monitoring role in Key Audit Matters disclosure.

**Conclusion:** The research findings, provides evidence to support the influencing part of Big 4 audit firms in Key Audit Matter disclosure in the Sri Lankan context. The results reveal that independent directors also play a monitoring role in Key Audit Matters disclosure.

**Keywords:** Key audit matters, Independent directors, Regression analysis, Colombo stock exchange

## OP 3.6 MRC\_ACF\_008

## Impact of Digital Currency on Sustainability of Banking Sector; Special reference to Systematically Important Banks (SIBs) in Sri Lanka

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**Introduction:** Digital currency has become the latest mode of transaction in the contemporary world. Furthermore, it plays a vital role in the banking industry as well as the entire financial system. The technological advancements and competition have influenced to transfer traditional transaction towards digital platforms. It can be identified that digital transactions challenge governments, technologies, and regulations in both developing countries and developed countries. Therefore, this study investigates the impact of digital currency on the sustainability of the banking sector in Sri Lanka.

**Objective:** The objective of this study is to investigate the impact of digital currency on the sustainability of the banking sector in Sri Lanka.

**Methodology:** The study incorporates Systematically Important Banks (SIB) in Sri Lanka. Data were from a sample of 83 respondents from the managerial level. Using the collected data through the self-administered questionnaire, reliability, validity tests, and correlation and multiple linear regression analyses were conducted to investigate the impact of digital currency on the sustainability of the banking sector in Sri Lanka.

**Results:** The multiple linear regression analysis ensured that the customer awareness, regulatory framework, beliefs, and riskiness of the digital currency are positively significant ( $p=0.001$ ) and customer knowledge showed a negatively insignificant impact on the sustainability of the banking industry in Sri Lanka.

**Conclusion:** As the usage of digital currency is a novel trend, the impact of digital currency on the sustainability of the banking sector is crucial. Hence the researchers emphasized that these findings offer precise information to boost the focus on digital currency and to take advantage of using them in Sri Lanka. Further, contexts with similar features can adhere to these research findings in ensuring the sustainability of the banking sector.

**Keywords:** Digital currency, Sustainability, Systematically Important Banks in Sri Lanka

## OP 3.7 MRC\_ACF\_015

## A Study of the Predictability of Stock Market Returns for Some Selected Countries Amidst the COVID-19 Pandemic

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**Introduction:** The Coronavirus disease (COVID-19), first identified in Wuhan province, China, spread rapidly causing a global pandemic. Government actions were taken in the affected countries such as curfews, lockdowns, and similar restrictions to tackle the situation. The abrupt occurrence of this situation has resulted in significant disruptions across various economic variables particularly impacting the stock market globally.

**Objective:** This study aims to investigate the predictability of stock market returns in Sri Lanka amidst the COVID-19 pandemic and expand the investigation to the USA, UK, and 7 major affected Asian countries.

**Methodology:** A daily data set of stock market indices, exchange rates, interest rates, COVID-19 cases, and COVID-19 deaths in 10 countries was constructed using online databases. Time period of the analysis is from 1st March 2019 to 5th November 2020. A preliminary analysis was performed, and time series features namely, ARCH effect, stationarity, and normality of the variables were tested. Using the Westerlund and Narayan (2012, 2015) predictability approach that accommodates those salient features, the analysis was performed to test the predictability of stock returns. In the analysis, consistency of the results was tested by performing the same analysis in different conditions.

**Results:** Results give evidence to conclude that, Interest rates of Sri Lanka, United Kingdom, India, Indonesia, and South Korea have shown the significant predictive abilities on their stock returns with the control of the effect of COVID-19. Exchange rate predicts the Japan and India stock returns significantly when the effect of COVID-19 is controlled. Secondly regardless of the time the stock market returns of Thailand can be significantly predicted by both proxies of COVID data.

**Conclusion:** Stock returns of Sri Lanka, United Kingdom, India, Indonesia, and South Korea are significantly predicted by the interest rate and the stock returns of only Japan and India are significantly predicted by the exchange rate during COVID-19 pandemic. Thailand stock market returns are significantly predicted by COVID-19 data.

**Keywords:** COVID-19, Stock market, ARCH test, ADF test, WN predictability approach

## OP 3.8 MRC\_MBM\_001

## The Impact of Celebrity Attractiveness, Respect and Similarity on Female Consumer's Self-Esteem: With Special Reference to Beauty Care Advertisements in Sri Lanka

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**Introduction:** The utilization of celebrity endorsement has become a widespread marketing tactic implemented by a considerable number of corporations globally. The strategy of celebrity endorsement has been widely adopted by numerous corporations worldwide, and Sri Lanka has followed suit in the beauty care market due to the strong affinity of female consumers towards celebrities and their beauty care routines.

**Objective:** The objective of the study is to assess the impact of celebrity attractiveness, respect, and similarity on female consumer's self-esteem with special reference to the beauty care advertisements in Sri Lanka.

**Methodology:** The descriptive study was conducted in conveniently selected 384 individual females who purchased at least one beauty care product. The data were collected by a self-administrated questionnaire. The multiple linear regression analysis was utilized as the primary inferential analysis method to test the hypothesis.

**Results:** The results of the current study have been verified by the prior literature. The results of the study confirmed that celebrity attractiveness, respect, and similarity have a significant positive impact on the female consumer's self-esteem.

**Conclusion:** Despite the extensive research conducted in other countries, there is a noteworthy gap in theoretical knowledge regarding the impact of celebrity attractiveness, respect, and similarity on female consumers' self-esteem. In the current context of celebrity endorsement, the TEARS model assumes a vital role. However, insufficient utilization of the TEARS model has occurred in determining the effects of celebrity attractiveness, respect, and similarity on female consumers' self-esteem. Consequently, this study makes a noteworthy contribution in bridging the gap in theoretical knowledge.

**Keywords:** Celebrity endorsement, Trustworthiness, Expertise

## OP 3.9 MRC\_MBM\_006

## Factors Affecting Consumers' Local Organic Food Purchase Intention in Sri Lanka

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**Introduction:** Moving from conventional food to organically produced food consumption is one of the major trends in present society. Further, organic food consumption is becoming more popular among people worldwide due to the environmental and health benefits associated with organic food production. Across the globe, including Sri Lanka, non-communicable diseases such as cancer, kidney diseases, and skin ailments are on the rise each day. Consequently, customers are progressively focused on organic goods. Despite the perceived importance of buying organic food and the elevated purchasing intentions among consumers in Sri Lanka, the actual act of purchasing remains uncertain.

**Objective:** The objective of this study is to investigate the factors affecting consumers' purchase intention for local organic food in urban Sri Lanka.

**Methodology:** A quantitative research approach was employed using a structured questionnaire. A sample of 300 users from the urban area was selected through a purposive sampling technique. Data were analysed using regression analysis. The study examined the health and environmental consciousness, product certification of organic food, common parameters of organic food, awareness about organic food, and market availability of organic food on organic purchase intention for local organic food in urban Sri Lanka.

**Results:** Health and environmental consciousness ( $r= 0.603$ ,  $p<0.0001$ ), product certification of organic food ( $r= 0.584$ ,  $p<0.0001$ ), common parameters of organic food ( $r= 0.450$ ,  $p<0.0001$ ), awareness about organic food ( $r= 0.611$ ,  $p<0.0001$ ), and market availability of organic food ( $r= 0.701$ ,  $p<0.0001$ ) have positive impact on organic food purchase intention.

**Conclusion:** The results revealed that health and environmental consciousness, product certification of organic food, common parameters of organic food, awareness about organic food, and market availability of organic food have a significant impact on the intention to purchase organic food. The findings can assist health and wellness companies in adapting their production and marketing strategies to meet the increasing customer demand for improved organic food production.

**Keywords:** Organic food, Purchasing intention

## OP 3.10 MRC\_MBM\_009

**Effect of TikTok Influencer's Characteristics on Fashionable Clothing Purchase Intention: With Special Reference to Millennials in Sri Lanka**

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**Introduction:** The fashionable clothing sector was significant in the Sri Lankan economy. This sector needs effective marketing strategies since the product has a highly visual basis. Currently, many people are engaging with TikTok and making purchase decisions through the platform due to their busy lifestyles and the persuasive content it offers. Previous research revealed that there are significant opportunities to utilize influencer marketing to enhance millennials' intention to purchase fashionable clothing, both globally and locally.

**Objective:** This study aimed to investigate the effect of TikTok influencers' characteristics on Millennials customers' fashionable clothing purchase intention in Sri Lanka.

**Methodology:** The study observed trustworthiness, expertise, attractiveness, respect, and similarity as independent variables and customers' fashionable clothing purchase intention as the dependent variable. The study was a quantitative study where a structured questionnaire was distributed among 132 TikTok users who were following at least one fashionable clothing influencer in Sri Lanka under the snowball sampling method. Correlation and multiple linear regression analysis were employed to analyse the hypotheses.

**Results:** The study findings indicate the similarity of TikTok influencers has a strong, significant, positive impact on TikTok users' intention to purchase fashionable clothing. However, the trustworthiness, attractiveness, and respect of TikTok influencers have an insignificant, positive impact on TikTok users' fashionable clothing purchase intention while the expertise of TikTok influencers has an insignificant, negative impact on TikTok users' fashionable clothing purchase intention. As a result, only H5 has been accepted, while the other four hypotheses have been rejected.

**Conclusion:** The findings revealed that four out of the five hypotheses were rejected, while the independent variable of similarity, which was accepted, demonstrated the most significant impact on customers' intention to purchase fashionable clothing.

**Keywords:** Fashionable clothing, Purchase intention, Influencer marketing, TikTok



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## Poster Presentations

**Technical Session 4 : Nursing**

## PP 4.1 MRC\_NUR\_018

**Sleep Quality among COVID-19 Survivors in Hambantota District, Sri Lanka**

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**Introduction:** The COVID-19 pandemic has had widespread effects on various aspects of life, including physical and mental health. Survivors of severe illness, including COVID-19, may experience post-traumatic stress symptoms. This can include intrusive thoughts, nightmares, and hyperarousal, all of which can impact sleep quality.

**Objective:** To evaluate the sleep quality of the COVID-19 survivors who visited the selected hospital in the Hambantota district in Sri Lanka.

**Methodology:** A descriptive cross-sectional survey was conducted among 317 consenting COVID-19 survivors in the medical clinic at the selected hospital in Hambantota, Sri Lanka. A convenient sampling method was used as the sampling method. Pretested interviewer-administered questionnaires were used to collect data. Questionnaires were developed using scientific literature and the Pittsburg Sleep Quality Index (PSQI) used for evaluating the quality of sleep. Data was analyzed using IBM SPSS software. Ethical approval was obtained from the Ethics Review Committee of KIU (KIU/ERC/23/005).

**Results:** The majority of the participants were adults aged between 25-64 years (69%), and males (51%, n=162). Among the participants, the average hours of sleep per night was 7±1. The mean total PSQI was 6.52±3.0. PSQI scale revealed that 62% (n=197) of participants had poor quality of sleep (PSQI score >5), while the rest had good sleep quality.

**Conclusion:** According to the study results it is evident that most COVID-19 survivors experienced poor sleep quality. Further research studies are recommended to delve deeper into the dynamics of factors associated with the poor quality of sleep among COVID-19 survivors, and to explore potential causal relationships.

**Keywords:** COVID-19, Pitts-burgh Sleep Quality Index, Post-traumatic stress symptoms, Sleep quality

**PP 4.2 MRC\_NUR\_037****Attitudes and Practices Towards Wearing Face Masks among Adult Population in Sri Lanka during Post COVID-19 Pandemic**

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**Introduction:** COVID-19 is a transmittable virus that continues to interrupt livelihoods. Wearing a face mask is one of the simplest approaches to reduce the disease spreading. The current post-COVID-19 situation in Sri Lanka has made great progress in controlling the disease spread. Hence, the practice of wearing facemasks has been reconsidered by the public.

**Objective:** To assess the attitudes and practices of wearing facemasks among the adult population in Sri Lanka during post COVID 19 pandemic.

**Methodology:** A descriptive cross-sectional study was conducted among 280 adults in Sri Lanka through a pre-tested, self-administered anonymous online survey using a snowball sampling strategy. Ethical approval was obtained from the Ethics Review Committee of KIU, Sri Lanka (KIU/ERC/22/068). The collected data were refined, coded, and entered into SPSS (version 25) for data analysis.

**Results:** The mean age of the population was 31.02 (SD± 7.23) years while the majority (61.5%, n=128) were females. Almost all the participants, 98.1% (n=204) were vaccinated against COVID-19 by completing at least one dose. The majority of participants (52.2%, n=109) showed negative attitudes about wearing a facemask. Results further revealed that 33.2% (n=69) of participants were worried about the health risks of wearing facemasks while 51% (n=106) believed that face masks disrupted their breathing. However, the habit of wearing a face mask when they went out was continued by 76.9% (n=160) while 64.4% (134) replaced their face mask daily. Among the population, 39.9% (n=83) burned the used face mask. The majority of respondents (52.9%, n=110) wash their hands before wearing face masks while only 36.5% (n=76) wash their hands after removing face masks.

**Conclusion:** This study shows that the majority of participants had negative attitudes and inadequate practices about wearing face masks among the adult population in Sri Lanka. The study recommended raising awareness of the proper use of face masks.

**Keywords:** COVID-19, Facemasks, Sri Lanka

## PP 4.3 MRC\_NUR\_038

## The Financial Burden and Perceived Stress Among Patients Who Referred to Outpatient Department (OPD) at Colombo South Teaching Hospital, Kalubowila

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**Introduction:** The financial burden affects the lives of people in all parts of the country. It can proceed with various threats such as stress, lack of health care access, malnutrition, and communicable diseases which disturb the balance of the health care system. The economic crisis shows a sudden economic depression of the country which has been the key reason for creating a poor physical and mental health status within the Sri Lankan community.

**Objective:** To assess the financial burden and perceived stress among patients referred to OPD at Colombo South Teaching Hospital, Kalubowila.

**Methodology:** A descriptive cross-sectional study was conducted among 219 patients using COST-FACIT and DASS-21 which were administered as interviewer-administered questionnaires. The COST-FACIT was categorized as more than 26 means no impact (Grade 0), 14–25 means mild impact (Grade 1), 1–13 means moderate impact (Grade 2), and 0 means high impact (Grade 3). DASS -21 stress subscale (q-1, q-6, q-8, q-11, q-12, q-14,) was used and stress categorized as normal (0-14), mild (15-18), moderate (19-25), severe (26-33) and extremely severe more than 34 scores. Ethical approval was obtained from the Ethics Review Committee of KIU (ERC/23/065), and permission was obtained from the Director of Colombo South Teaching Hospital, Kalubowila. The SPSS (version 26) was used for data analysis utilizing percentage, and standard deviation.

**Results:** Most of the participants (62.1%, n=136) were female with a mean age of 48.6 (SD±14.7) years. The majority were Sinhalese (83.1%, n=182) and educated up to GCE O/L (32.90%, n=72) while 61.2% were employed (n=134). Most participants were married (66.7%, n=146) and 64% had a monthly income of less than Rs.10,000 (n=134). COST-FACIT score for each domain represented no impact (7.8%, n=17), mild (88.1%, n=193), moderate (3.7%, n=8), and high impact (0.5%, n=1), respectively. The stress scoring for each domain representing normal, mild, moderate, severe, and extremely severe was 9.6% (n=21), 5.5% (n=12), 15.5% (n=34), 43.8% (n=96) and 24.7% (n=54) respectively.

**Conclusion:** In conclusion, the majority of people experience Grade I financial burden and severe level of stress.

**Keywords:** Financial burden, Perceived stress

## PP 4.4 MRC\_NUR\_040

**Assessment on Trend of Migration among Nursing Officers in Sri Lanka**

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**Introduction:** Migration is the movement of people from one place to another to settle, permanently or temporarily, at a new location. The migration of highly skilled workers from less developed nations to industrialized nations is an inevitable part of the process of globalization and has positive and negative aspects.

**Objective:** To assess the trends of migration among nurses in Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 385 Sri Lankan nurses who are working in government hospitals. Data was collected by using a self-administered, pre-tested web-based questionnaire (Google Form), which was developed by researchers using scientific literature. The network sampling method was used and data were analyzed using SPSS version 25. Ethical approval was obtained by the ethical review committee at KIU.

**Results:** The majority were female (84.7%), married (56.1%) between 25-29 years old (42.6%) from urban areas (70.1%). The majority (86%) of the nurses had a high intention of migrating and it's to work (69.4%). High salary (79.9%), better working (67%) living (60.9%) conditions, and professional development (55.3%) were the major elements that made nurses migrate. Seventy-two percent had already taken any step to migrate 60% were planning to migrate temporarily. United Kingdom (47.7%) and Australia (31.1%) were the highest intended countries for them to migrate. Overall positive attitudes toward migration were shown by 87.2% of participants.

**Conclusion:** The study showed high intention and positive attitudes regarding migration among nurses in Sri Lanka and they are highly concerned about the salary and better working and living conditions.

**Keywords:** Migration, Nurses, Sri Lanka, Trends

PP 4.5 MRC\_NUR\_041

## Perceived Barriers to Effective Pain Management among Nursing Officers Working in Teaching Hospital Karapitiya, Sri Lanka

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**Introduction:** Pain is a phenomenon experienced by every human being from birth to death. Clinically, pain is classified as acute or chronic. Pain is continuously changing, transient, and accompanied by a high level of emotional responses. Since pain is a subjective experience, pain management needs an individualized plan. Several types of barriers that affect pain assessment and management have been identified in the clinical setting.

**Objective:** To evaluate the perceived barriers to effective pain management among nursing officers working in Teaching Hospital, Karapitiya, Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 327 nursing officers selected by systematic random sampling and prior ethical approval was obtained from the Ethics Review Committee of KIU (KIU/ERC/22/077). A pretested online questionnaire was used for data collection. Data analysis was done by using descriptive statistics with the use of SPSS (version25).

**Results:** The sample consists of the majority (70.7%, n=231) of females, between 31–35 years of age, and 63.1% (n=206) have 1 to 5 years of experience as a nurse. Among the participants, 63.4% (n=207) do not have any specific training related to pain management. In this study perceived barriers to effective pain management were evaluated in two distinct aspects as patient-related barriers and nurse-related barriers. Among patient-related barriers, lack of knowledge about pain management (50.4%, n=165), misconceptions related to pain (52%, n=170), and reluctance to take pain medication (50.4%, n=165) were identified as commonly reported patient barriers. Similarly, the shortage of nurses and high workload have been identified as nurse-related barriers to proper pain management.

**Conclusion:** Both patient-related barriers and nurse-related barriers should be addressed to achieve effective pain management.

**Keywords:** Barriers, Nurses, Pain Management

**PP 4.6 MRC\_NUR\_045****Health Issues among School Teenagers in Horana Education Zone with the use of Online Education during the period of COVID-19**

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**Introduction:** The COVID-19 pandemic created a huge impact on lives all around the world. All the academic institutions were closed and there was uncertainty about the reopening. Children were severely affected by the school closure. As an alternative to traditional teaching-learning strategies of face-to-face learning, online learning assisted by digital devices has emerged.

**Objective:** The purpose of the current study was to assess the physical and mental health issues among school teenagers in the Horana Education Zone with the use of online education during the period of COVID-19.

**Methodology:** This was a questionnaire-based cross-sectional study analyzing health issues among school teenagers who were attending online classes during the period of COVID-19. A self-administered online survey questionnaire was developed which consists of five sections to collect data from teenagers. Ethical approval was obtained before the survey.

**Results:** The study sample (13–19 years, n=383) comprised of 58.5% males. Among them, the most experienced physical disturbance is headache (n=357, 93.2%) while 90.6% fell asleep within 20 minutes after going to bed, and 88% experienced discomfort in the neck. Among mental disturbances, the majority had anger for small matters (n=342, 89.3%) while 87.2% had trouble concentrating on work and 85.1% with the change in school/work performance.

**Conclusion:** The sudden shift to online education had a significant impact on the physical and mental health of teenagers. Excessive use of digital devices and increased screen time results in poorer health outcomes.

**Keywords:** Health, Online education, Teenagers

## PP 4.7 MRC\_NUR\_046

## Knowledge and Practices of Self-medication among Nurses working at the National Hospital (NHSL) Colombo, Sri Lanka; A Cross-Sectional Survey

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**Introduction:** Self-medication (SM), the act of individuals using non-prescription drugs to treat self-identified health issues, is a widespread practice globally. Among healthcare professionals, including nurses, self-medication can have significant implications for patient care, workplace productivity, and personal health.

**Objective:** This study aimed to assess the prevalence of Self-Medication Practice (SMP) and its associated factors among nurses working in National Hospital Sri Lanka (NHSL).

**Methodology:** A descriptive cross-sectional study was carried out among systematically randomly selected 380, nurses working in NHSL, Sri Lanka. Information on SMP and associated factors relevant to SM was gathered using a validated and pre-tested self-administered questionnaire. After obtaining ethical approval from the Ethics Review Committee KIU (KIU/ERC/23/006), data was collected and analyzed by descriptive and inferential statistics.

**Results:** The majority of the participants were female (81.5%, n=309) (30-40) years old (55.7%, n=211) and married (80.5%, n=305). Among them, 47% were denoted 5-10 years of working experience as a nurse. Most nurses were from the surgical unit (20.8%, n=79) at NHSL, Sri Lanka. The nurses who had at least two-night shifts per week (77.6%, n=294) and 48 working hours per week were common. The majority of them practiced SM (63%, 239). The pain (39.3%, n=149) and rhinitis (25.1%, n=95) were the major ailments for practicing SM among them. The “disease is not serious” (71.2%, n=270) and less experience (11.9%, n=45) were the most common reasons for SMP. Analgesics (60.4%, n=229) and antimicrobials (17.7%, n=67) were the commonly reported types of medications consumed which were obtained from the drug trolley frequently. Most of the participants consumed the medications when the symptoms were present only (32.2%) and less amount were consumed during their night shifts (0.3%). Nausea was identified as the commonly reported adverse reaction (34.6%, n=131).

**Conclusion:** Self-medication is a prevalent practice among nurses at the National Hospital, Colombo, Sri Lanka. It is essential to address this issue comprehensively to ensure the well-being of healthcare professionals and maintain the quality of patient care. Strategies to promote responsible self-medication, such as improving healthcare access, increasing awareness of the potential risks, and providing education and support to nurses, should be considered by healthcare institutions and policymakers.

**Keywords:** Knowledge, Practices, Self-Medication, Nurses, National hospital

**PP 4.8 MRC\_NUR\_051****Level of Physical Activity and its Associated Factors among Patients with Diabetes Mellitus who seek treatment from a Medical Clinic at a selected hospital in Sri Lanka**

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**Introduction:** Diabetes mellitus (DM) is one of the most common non-communicable diseases and it is the fifth leading cause of death in the world. Regular physical activities are strongly recommended for individuals with DM for their beneficial effects in improving blood glucose control and insulin sensitivity, prevention, and reduction of morbidities and complications.

**Objective:** The current study aimed to determine the level of physical activity among patients with Diabetes who visited the medical clinic at Mulleriyawa Base Hospital.

**Methodology:** A descriptive cross-sectional study was conducted among 225 patients with DM who attended medical clinics in the Mulleriyawa Base Hospital, Sri Lanka. International Physical Activity Questionnaire (IPAQ) was used to assess the level of physical activity. Data were analyzed using descriptive statistics and the chi-square test. IBM SPSS Version 25 was used as the analytical tool.

**Results:** Of 225 patients with diabetes, 62% (n=140) were males. The majority of participants were Buddhists (n= 160, 71%). The largest group of participants were married (n=144, 64%). Most participants were employed. Nearly half of the participants were overweight (n=106, 47 %) Of the participants the lower percentage was inactive at 7% (n=16) and the highest percentage was for minimally active 63% (n=142). In addition, 30% (n=67) proportions belonged to Health-Enhancing Physically Active (HEPA) levels. Age (p=0.009), gender (p=0.024), and Body Mass Index (p=0.005) were associated with levels of physical activity.

**Conclusion:** The study highlighted that the greater part of the participants was minimally active. Therefore, it is necessary to implement interventions to improve physical activities among patients its diabetes by concerning the associated factors.

**Keywords:** Physical activity, Diabetes Mellitus, HEPA

PP 4.9 MRC\_NUR\_052

## Perceived Social Support among Nursing Officers during the COVID-19 pandemic in Sri Lanka

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**Introduction:** Social support refers to how friends, family members, and others provide material, psychological, and overall support during times of need. Proper social support is salient for nurses while they are at the forefront of healthcare during the COVID-19 pandemic.

**Objective:** The study aimed to assess the perceived social support among nurses during the COVID-19 pandemic, in Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 166 nurses who are working in government hospitals in Sri Lanka. The questionnaire was circulated among nursing officers through online platforms. The Multidimensional Scale of Perceived Social Support (MSPSS), a validated tool for Sri Lanka was used to assess social support from three dimensions: significant others, family, and friends. Data were analyzed using descriptive statistics and SPSS Version 26 was used as the analytical software.

**Results:** The majority of participants were females (n=133, 80.1%), aged between 20-30 years (n=125, 75.3%). Most of the nurses (n=123, 74.1%) had working experience of 1-5 years. Of them, 25.3% (n=42) worked with COVID-19-positive patients, while 33.7% (n=56) worked with COVID-19-suspected patients. Most of the nurses (67.5%, n=112) perceived that family support was high during COVID-19, while 12.0% (n=20) and 20.5% (n=34) of nurses perceived low, moderate levels of family support respectively. Less than half of the nurses (n=78, 47.0%) perceived a higher level of support given by their significant others during COVID-19, while 18.1% (n=30) and 34.9% (n=58) of nurses perceived a low, moderate level of support from significant others. Only 52.4% (n=87) of the nurses reported a higher level of support from their friends while 12.7% (n=21) and 34.9% (n=58) of nurses perceived low, and moderate levels of support respectively.

**Conclusion:** The findings of the study highlighted that most Sri Lankan nurses perceived considerably higher support from family and friends but not from their significant others during the period of COVID-19. Further research is recommended to assess social support during the post-pandemic era.

**Keywords:** Social support, Nurses, COVID-19 pandemic

**PP 4.10 MRC\_NUR\_053****Prevalence and Associated Factors for Diabetes Mellitus among Patients with Dental Caries in National Dental Teaching Hospital Sri Lanka**

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**Introduction:** Diabetes is a condition when the body produces insufficient insulin or does not respond to it, causing excessively high blood glucose levels. An infectious disorder known as dental caries or tooth decay deteriorates the structure of teeth. Cavities are the most frequent outcome of dental caries. Dental caries, if left untreated, can result in discomfort, tooth loss, and, in very rare instances, brain infection. Diabetes mellitus can affect the entire body, including teeth and gum, leading to plaque formation and gingivitis, which can lead to periodontitis.

**Objective:** To identify the prevalence and associated factors for diabetes mellitus among patients with dental caries in National Dental Teaching Hospital Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 131 stratified randomly selected patients with dental caries who received treatment from the National Dental Teaching Hospital (NDTH). Ethical approval (KIU/ERC/22/035) was obtained from the Ethics Review Committee of KIU, Sri Lanka. A pretested (n=10) interviewer-administered questionnaire which was developed by investigators based on scientific literature was used for data collection. Data were analyzed using descriptive and inferential statistics with the use of IBM SPSS (version 25) software.

**Results:** The sample consists of 131 participants with a mean age of 46.49 (SD±14.1) years. The majority (50.4%, n=66) of them were females, and 77.9% (n=102) of patients were married. The prevalence of diabetes mellitus among patients with dental caries was 34.4% (n=45). There were statistically significant associations between diabetes and age (p=0.0001), marital status (p=0.004), level of education (p=0.002), employment status (p=0.0001), smoking habits (p=0.0034), and alcohol consumption (p=0.003).

**Conclusion:** The prevalence of diabetes among patients with dental caries was higher than the average prevalence in the Sri Lankan adult population. Age, marital status, level of education, employment status, smoking habits, and alcohol consumption were associated with diabetes among patients with dental caries at the National Dental Teaching Hospital, Sri Lanka.

**Keywords:** Dental caries, Diabetics, Associated factors

## PP 4.12 MRC\_NUR\_055

## The relationship between Musculoskeletal Symptoms and Physical Activity Level among Nurses in a selected hospital in Hambantota, Sri Lanka

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**Introduction:** Work-related musculoskeletal disorder (WMSD) is currently recognized as one of the most common occupational injuries for nurses who have been identified as a high-risk group in the medical service industry. Nurses can develop musculoskeletal symptoms from patient-handling tasks such as lifting, transferring, and repositioning. Comorbidities such as musculoskeletal symptoms may negatively affect engagement in leisure time and physical activity.

**Objective:** This study was designed to determine the relationship between musculoskeletal symptoms and physical activity levels among nurses in a selected hospital in Hambantota, Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted with a simple random sampling method among 230 nurses at District General Hospital Hambantota. A self-administered questionnaire was used to collect data. Musculoskeletal symptoms were assessed using a validated Orebro Musculoskeletal Pain Questionnaire (OMPSQ) and the level of physical activity was measured using the International Physical Activity Questionnaire (IPAQ). Descriptive statistics and chi-square tests were used. The scoring protocols were used to analyze the data of the questionnaires on musculoskeletal pain and physical activity level. Ethical approval was obtained from the Ethics Review Committee of KIU, Sri Lanka (KIU/ERC/23/019).

**Results:** Overall, 90% were Females and the mean weight (kg) was 55.8±8.6 and height (m) was 1.5 (SD±0.1). OMPS total score >50 was a high risk of getting musculoskeletal symptoms. The mean score of musculoskeletal symptoms was 46.4 (SD±14.4) and nearly half of the population (47.2%) was at risk for future disability. The mean of the physical activity level was 1231.1(SD±858.9) MET minutes/week. The majority (72.2%) of participants had moderate physical activity. There was a negative correlation (p=0.002) between musculoskeletal symptoms and physical activity levels among nurses. This negative correlation suggests that as nurses engage in higher levels of physical activity, they tend to experience fewer musculoskeletal symptoms.

**Conclusion:** The study indicated that the overall future disability and level of physical activity were moderate among nurses and there was a negative correlation between musculoskeletal symptoms and physical activity level. The results of the study could have practical implications for promoting the health and well-being of nurses. Encouraging and facilitating higher levels of physical activity among nurses may contribute to reducing musculoskeletal symptoms and improving their overall musculoskeletal health.

**Keywords:** Musculoskeletal symptoms, Physical activity, Nurses

**PP 4.13 MRC\_NUR\_058****Knowledge, Attitudes, and Adherence to Preventive Measures of Unintentional Injuries among Parents with Children less than fourteen years admitted to the District General Hospital Embilipitiya in Sri Lanka**

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**Introduction:** Unintentional injury is the leading cause of domestic child mortality, and permanent impairment globally, and the situation is similar in South Asia. According to reports, childhood injury is the fourth leading cause of death among children under five and that has become a serious issue in Sri Lanka.

**Objective:** To assess parental knowledge, attitudes, and adherence to preventative measures and to investigate the factors associated with parental knowledge, attitudes, and adherence to preventive measures among parents with children less than fourteen years old.

**Methodology:** A quantitative descriptive cross-sectional study including 382 participants who had children under fourteen who were admitted to the Embilipitiya District General Hospital, Sabaragamuwa, in Sri Lanka. A questionnaire developed by researchers consisting of closed-ended questions in four sections such as sociodemographic data, parental knowledge, attitudes, and adherence to preventive measures, was pre-tested and administered to the study participants who provided consent.

**Results:** The response rate of the participants was 100%. Parents' knowledge of child unintentional injury prevention measures, the average score was 5.7 out of 9, equivalent to 63.3%. parent's attitude, displayed a positive outlook, with an average score of 6.7 out of 10, equivalent to 67%. parents showed lower adherence, scoring an average of 7.5 out of 15, corresponding to 50%. These findings suggest a potential gap between knowledge and practical implementation. Associated factors included the child's age, educational status of both, parents' age, and monthly income.

**Conclusion:** Students' knowledge and attitudes concerning home accident risk are crucial for injury prevention parents have general knowledge and positive attitudes regarding these risks. There is a need for improvement of this knowledge and attitudes into practical preventive measures. To bridge this gap, educational initiatives and awareness campaigns can play a pivotal role. It can boost parents' knowledge about injury prevention practices and create safer environments for children.

**Keywords:** Knowledge attitudes, Child unintentional injuries, Preventive measures

## PP 4.14 MRC\_NUR\_060

## Assessment of Job Satisfaction among Nurses in Low- and Middle-income Countries; Systematic Review

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**Introduction:** In Low-and Middle-Income Countries (LMICs), nurses are the primary healthcare providers, serving a large and diverse population with limited resources. Job satisfaction, as a multifaceted construct, reflects the positive emotional state and overall contentment individuals experience with their work environment, tasks, and job-related factors.

**Objective:** The study aimed to assess job satisfaction among nurses in low- and middle-income countries.

**Methodology:** A systematic review was conducted on articles published during 2015 -2023 in PubMed, EMBASE, ScienceDirect, and Google Scholar. Utilizing the PRISMA guidelines 1987 articles were identified and 986 were removed due to duplication records. Through the screening process, 76 were selected as eligible articles and 12 were selected for the final review.

**Results:** The results revealed that common study designs were cross-sectional, longitudinal, or experimental designs. The amalgamation of these 12 quantitative studies in the systematic review paints a rich tapestry of job satisfaction among nurses in LMLCs with their rigorous methodologies, large sample sizes, and diverse measurement instruments such as Minnesota Job Satisfaction Scale, "New Castle Ottawa scale," "Expanded Nursing Scale," "McCloskey/Mueller Satisfaction Scale," and "Rothe's index of nursing job satisfaction scale." Across the studies, a consistent theme is the positive impact of a supportive work environment and organizational culture on nurses' job satisfaction. Workload and burnout were significant factors that influenced nurses' job satisfaction. Job satisfaction among nurses is influenced by their level of autonomy and decision-making authority. Emotional intelligence emerges as an important determinant of job satisfaction among nurses. Psychological empowerment and affective commitment are key factors that impact nurses' job satisfaction. Nursing work-life quality is a critical factor influencing job satisfaction.

**Conclusion:** There were several common factors influencing job satisfaction among nurses. These factors encompass supportive work environments, workload and burnout management, emotional intelligence, autonomy, psychological empowerment, affective commitment, and nursing work-life quality.

**Keywords:** Job satisfaction, Nurses, Low- and Middle-Income Countries

**PP 4.15 MRC\_NUR\_061****Experiences and Perception of Nursing Students regarding their Clinical Learning Environment and its relationship with Academic Motivation in selected Nursing Training Schools in Sri Lanka**

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**Introduction:** Nursing education requires theoretical and practical knowledge and skills. Due to the significance of clinical practice settings in nursing, students require a suitable place to apply their knowledge to practice. Nursing students need motivation to succeed academically. Enhancing clinical education is a key strategy for nursing students' academic motivation.

**Objective:** This study was carried out to explore the experiences and perceptions of nursing students regarding their Clinical Learning Environment (CLE) and its relationship with academic motivation in selected nursing training schools in Sri Lanka.

**Methodology:** A mixed-method study was undertaken among three-year nursing diploma students at government nursing schools in Colombo, Kurunegala, and Rathnapura. Content analysis was used to analyse 12 semi-structured interviews' qualitative data. Quantitative data were obtained from 394 participants using the "Clinical Learning Environmental Scale plus the Nurse Teacher Scale (CLES+T scale)" and the "Academic Motivation Scale (AMS)" and analysed using SPSS version 25. Vallerand et al. (1992) formula assessed academic motivation.

**Results:** The results show that 48.2% of the students perceived the clinical learning environment as sufficient. Positive correlations exist between satisfaction and many clinical learning environment factors ( $p < 0.001$ ). The total academic motivation of nursing students correlated positively with each component. The average satisfaction score of all sample nursing students was 3.7. The mean motivation score in AMS was 5.17 and the mean motivation score was 2.25. Their academic motivation was 5.85. In this research, CLES+T and AMS had a Pearson correlation coefficient ( $r$ ) of 0.432. Academic motivation in nursing students was positively correlated with the clinical learning environment. The qualitative results categorized as pedagogical experiences, real-world experiences, and challenging experiences developed from 12 categories together with 45 codes. The research found that institutional and individual factors impact nursing students' clinical learning environment perceptions.

**Conclusion:** A clinical setting that meets the needs of competent nursing students is vital for their training. Improving the clinical learning environment may motivate nursing students academically.

**Keywords:** Student nurse, Clinical Learning Environment, Academic motivation

## PP 4.16 MRC\_NUR\_065

**Prevalence of NCD Risk Factors, Health-Promotive Behaviors, and Associated Factors among Nursing Students in the Selected Schools of Nursing in Sri Lanka**

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**Introduction:** There is an increasing trend of Non-Communicable Diseases among all adult age categories including young adulthood. Student nurses who belong to young adulthood are the future nurses. Also, student nurses are involved in health-promoting activities during their training and career. As health promoters, they not only persuade others to lead healthy lifestyles but also have the opportunity to set examples for others to follow.

**Objective:** To determine the prevalence of selected NCD risk factors, health-promotive lifestyle behaviors, and associated factors among nursing students in the selected schools of nursing in Sri Lanka.

**Methodology:** Cross-sectional descriptive quantitative study. A total of 560 nursing students from selected two schools of nursing participated in the study. Data was collected using a self-administered questionnaire. Ethical approval was obtained from the ethical review committee of KIU. Walker's health-promoting lifestyle profile II was used to assess HPL behaviours. Data analysis was done using Statistical Package for Social Science (SPSS) version 25. Descriptive statistics, ANOVA, Independent sample t-test, Regression analysis test, and Chi-square test were used.

**Results:** A high percentage (67.9%) belonged to the normal BMI range and 10 % were in the overweight category. The majority (48 %n=270) engaged in physical exercises less than one hour per week. Physical exercises were determined by gender and monthly income. The total HPLP II score was 125.52 (SD±15.9). Domains of Interpersonal relations had the highest mean and physical activity had the lowest mean values. Age, gender, and monthly income had a significant impact on interpersonal relationships and physical activity. Accommodation has also affected the physical activity domain. There was a significant association between monthly income with stress management, nutrition, and overall lifestyle score.

**Conclusion:** The prevalence of NCD risk factors such as smoking, alcohol consumption, and obesity were low among the study population. Practicing physical exercises was also low in Nursing students. Student nurses have an unfavorable health-promotive lifestyle. Physical activity differed by gender, age, monthly income, and accommodation. Poor health habits of student nurses may limit their ability to fulfill their role in health promotion. Present modifiable risk factors need to be modified towards healthy behavior.

**Keywords:** NCD risk factors, Health promoting-behaviors, Nursing students

**PP 4.17 MRC\_NUR\_066****Factors Associated with Awareness of Chronic Kidney Disease (CKD) among Patients attending Base Hospital Thambuththegama, Sri Lanka**

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**Introduction:** Chronic Kidney Disease (CKD) is a progressive condition that affects more than 10% of the general population worldwide and CKD emerged as one of the leading causes of mortality worldwide. In Sri Lanka, CKD is a major burden on the healthcare system. Assessment of awareness of CKD and its associated factors is vital in improving the early detection and minimizing the related complications.

**Objective:** The study aimed to assess the factors associated with awareness of CKD among patients attending the base hospital in Thambuththegama, Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 412 volunteered patients attending the outpatient department at the base hospital in Thambuththegama, Sri Lanka. The data was collected using a researcher-developed interview-administered questionnaire consisting of 32 items to assess the CKD awareness. Each correct answer scored as one and sums of items were considered as total awareness. Based on the total awareness variable, exceeded values above 60 for the 0-100 awareness scale are considered good awareness of CKD (Average awareness = 40-60, Poor awareness < 40). The data was analyzed by descriptive and inferential statistics using SPSS version 25. The study was ethically approved by the Ethics Review Committee at KIU.

**Results:** The majority were Sinhalese (95.1%), Buddhist (92.2%), male (58%), obtained primary education (56.1%), and did not report positive family history for CKD (51.7%). Only 14.1% were professional employees. The mean age was 46.25 (SD±15.04) years and ages ranged from 21 to 70 years. The mean value for total awareness was 63.31 (SD±17.46) and ranged from 0-100 on the 0-100 scale. The majority reported good awareness of CKD (57.7%). Poor and average awareness were reported at 7.3% and 35% respectively. The level of awareness of CKD was associated with gender ( $p=0.016$ ), marital status, education level, and occupation status ( $p=0.000$ ).

**Conclusion:** The majority reported a satisfactory awareness of CKD. However, further studies are recommended to assess the associated factors of awareness and practices of CKD awareness.

**Keywords:** Chronic Kidney Disease (CKD), Awareness

PP 4.18 MRC\_NUR\_067

## Attitudes towards Patient Safety, Perception of Patient Safety Culture, and associated factors with Patient Safety and Patient Safety Culture among Health Care Providers in the District General Hospital in Embilipitiya

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**Introduction:** Medical errors (ME) and adverse events (AE) are increasing rapidly. Therefore, healthcare organizations take various measures to prevent MEs and to improve patient safety (PS) by establishing positive Patient Safety Cultures (PSC) in their institutes. The first step in creating a positive PS is to identify the current safety culture. District General Hospital Embilipitiya (DGHE) was selected to investigate PSC among staff since there is no properly established PSC.

**Objective:** To determine the attitudes towards patient safety and perception of patient safety culture and associated factors with patient safety and patient safety culture among healthcare providers in the DGHE.

**Methodology:** A descriptive cross-sectional study was conducted, using the Hospital Survey on PSC (HSOPSC) as a self-administered questionnaire, by using 439 healthcare professionals, during August 2023. A total of 396 questionnaires were returned (response rate = 90.20%). SPSS 25 was used to analyze data. Descriptive statistics and one-way ANOVA were used as statistical tests. The significance level was 0.05. Ethical approval was obtained from the Ethics Review Committee of KIU (KIU/ERC/23/036).

**Results:** Less than half (43.4%) of the participants graded PSC as acceptable and overall PSC was 42.88%. The attitude and perception of PSC related to teamwork (76.94%), supervisor expectation, action promoting safety (60.31%), organizational learning (59.55%), teamwork across the hospital (52.63%), and hospital handoff (58.54%) were scored high percentages always above 50%. Hospital management support (31.64%), overall perception of PS (39.16%), feedback about the error (30.02%), communication openness (45.82%), non-punitive response to error (27.12%), staffing (19.93%), frequency of event reporting (12.98%) was scored less percentages. A high percentage (60.6%) had not reported AEs. Education level (P=0.00), professional status (P=0.01), monthly income (P=0.01), working hours per week (P=0.00), PS training (P=0.00), sex (P=0.01), age (P=0.01), work experience (P=0.04), direct contact with the patient (P=0.01), working experience in the current hospital (P=0.04), and current working unit (P=0.007) were significantly associated with the PSC.

**Conclusion:** Overall PSC value was 42.42%. Learning from mistakes, non-blaming behavior, non-punitive responses to errors, and training were essential components for establishing the PSC. Associated factors in this study with AE need to be considered when planning policies related to PS.

**Keywords:** Patient safety, Patient safety culture, Adverse events

## PP 4.19 MRC\_NUR\_069

## Cross-cultural Validation of the ‘Comprehensive Evaluation of Use of Technology in Education’ (CEUTIE) Instrument into ‘Sinhala Language’ in Sri Lanka

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**Introduction:** Digital Educational Technologies (DETs) were introduced in Nursing Colleges, in Sri Lanka during the COVID-19 pandemic season, without evaluating their effectiveness, since there were no other options to continue education. However, there was a paucity of tools to evaluate Nursing students’ perceptions regarding DETs. Therefore, this study aimed to cross-culturally validate the ‘Comprehensive Evaluation of Use of Technology in Education’ (CEUTIE) instrument developed by Jennifer et al. in 2022 to the Sinhala language.

**Objective:** To cross-culturally validate the Sinhala version of the CEUTIE Instrument.

**Methodology:** The CEUTIE instrument was originally published in English. It has 8 constructs and 28 items to assess students’ perceptions related to educational technologies. Cross-cultural validation of the CEUTIE instrument was done, following six phases according to the model of cross-cultural validation, developed by Beaton et al. in 2000. Pre-testing was done at the College of Nursing, Galle, by randomly selected 152 Nursing students, from June – July 2023. Among 31 of them, were asked to categorise each item, on a dichotomous scale as ‘clear’ or ‘unclear’. Both the meaning of the item and responses were explored. The distribution of responses was evaluated for a high proportion of missing items and repetition of single responses. Cronbach’s alpha value and Pearson correlation values (rxy values) were calculated for all responses of the participants.

**Results:** More than 87% (n=31) of the participants marked that they were able to identify the meaning of all 28 items. There were no missing questions reported. Similar response patterns were not identified. Cronbach's alpha value for all 28 items in the instrument was 0.98. Cronbach's alpha for all 8 constructs were closer to 1.0 individually (Learning outcomes=0.94, Affective elements=0.91, Behavior=0.90, Design=0.95, Technology=0.92, Teaching pedagogy=0.91, Presence=0.92, Institutional environment=0.92). Pearson correlation values, obtained through calculations for all 28 items of the instrument with the total score (rxy value), were higher than the r table product moment of 0.1593 (Significance Level 5%, N=152, df=150). Significance values obtained for all 28 items were  $p < 0.05$ .

**Conclusion:** The Sinhala version of the CEUTIE instrument was reliable and valid to use for people who speak in Sinhalese language in Sri Lanka.

**Keywords:** Nursing students’ perception, Educational technologies, Sinhala instrument

PP 4.20 MRC\_NUR\_070

## Experience in Performance Obstacles and Strategies to Improve Quality Care Performance During Patient Care among Intensive Care Unit Nurses at Base Hospital, Akkaraippattu

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**Introduction:** Poor patient safety, workload, and poor quality of working life are the key issues affecting the smooth running of intensive care units (ICUs). Features of the ICU work setting can create obstacles for nurses in performing patient care tasks. As per the work experience of the investigators, there is a threat to the quality and safety of care delivered by nurses at the ICU due to conflicts among the members of the healthcare team. They are common in relation to self-extubation, bed sores, nosocomial infections, and poor presenting skills of the nurse. Missed follow-up of physician's orders, medication errors, and poor documentation are seen as the triggers for conflicts between the patient's family and nurses.

**Objective:** This study aimed to explore the experience of intensive care unit nurses on performance obstacles and strategies in relation to the quality of ICU care.

**Methodology:** A qualitative descriptive study was conducted among ICU nurses. In-depth semi-structured interviews and participant observation were used for data collection. Data saturation was achieved at the 12th interview and the number of participants was 15. Thematic analysis has been used to analyse the data. Audio-recorded interviews were scripted and coded. The transcripts were read several times to identify the theme through impressive words or phrases.

**Results:** The study's findings revealed two main themes such are: performance obstacles during patient care in the ICU and strategies to improve patient care in the ICU. The performance obstacles identified were the busy ICU environment, shortage of staff, continuous heavy shifts, heavy workload, multitasking, frequent disturbance by visitors, lack of resources, lack of time for communication with patients, families and the inter-professional team, their own family burden, missed nursing care, proneness to infection, and inadequate leadership and management. Adequate staffing, in-service education programs, effective communication, adequate resources, infection control, bedside nurses' close intensive observation, strategic planning, and ICU training for all ICU nurses were strategies to improve quality care.

**Conclusion:** This study described a clear understanding of the performance obstacles faced by ICU nurses. Effective leadership management and administration support the need for quality care.

**Keywords:** Performance obstacles, Missed nursing care, Quality care

**PP 4.22 MRC\_NUR\_073****Satisfaction and Associated Factors on Postoperative Pain Management among General Surgical Patients at Base Hospital Akkaraipattu, Sri Lanka**

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**Introduction:** Postoperative pain is characterized as acute pain resulting from surgical injury. Patients feel some level of discomfort from the start of surgical procedures until they are discharged. The satisfaction of patients with their post-operative pain treatment significantly impacts the outcomes of healthcare services.

**Objective:** To assess the satisfaction and factors associated with post-operative pain management among general surgical patients at Base Hospital Akkaraipattu, Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 360 consenting post-operative patients selected via a simple random sampling technique who were treated at the Base Hospital, Akkaraipattu, Sri Lanka. An interviewer-administered questionnaire was used to collect data from participants after 24 hours of surgery. Data was analyzed using IBM SPSS version 25 software. One-way ANOVA and t-tests were used to reveal differences in pain intensity and satisfaction across different groups of independent variables. P values less than 0.05 were considered significant throughout the analysis. Ethical approval was obtained from the ethical review committee of KIU (KIU/ERC/23/039).

**Results:** Most of the respondents 50% (n=180) were experiencing moderate pain, while 35% (n=126) reported mild pain. A relatively small percentage (5%, n=18) reported severe pain, and 10% reported having no pain at all. Of the participants, 45% (n=162) waited less than 15 minutes, 35% (n=126) waited 15–30 minutes and the rest waited more than 30 minutes to receive post-operative pain treatment. A majority of respondents, (63%, n=227) reported being satisfied with the postoperative pain management while around 133 (37%) respondents reported their dissatisfaction.

**Conclusion:** Compared to similar studies, the satisfaction of patients with postoperative pain management was substantially high in this study. Future studies are recommended to assess the factors associated with postoperative pain management among patients.

**Keywords:** Postoperative pain, Satisfaction, Factors

## PP 4.23 MRC\_NUR\_076

**Awareness of Practices in Pretransfusion Blood Bank Sample Collection among the Nursing Officers in District General Hospital Polonnaruwa**

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**Introduction:** Blood transfusion saves lives and improves health. Blood supply is an important component of every country's national health policy and healthcare system.

**Objective:** To assess nurses' knowledge and practice related to pretransfusion blood bank sample collection at Polonnaruwa District General Hospital in Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 244 nurses at District General Hospital Polonnaruwa. A pre-tested, self-administered questionnaire including a checklist for pretransfusion blood sample handling was developed by the researcher refereeing literature. Ethical approval was obtained from the Ethics Review Committee of KIU (ERC/23/061), and further permission was obtained from the Director of District General Hospital Polonnaruwa. The SPSS (version 26) was used for data analysis utilizing percentage, and standard deviation.

**Results:** The mean age of the study sample was 35 years (SD±7.3). The majority were (88.9%, n=217) female nurses and 41% (n=100) had 1 to 5 years of working experience. Among the 31 units in the district hospital Polonnaruwa, the highest number of nurses were allocated to the medical unit (21.7%, n=53). On the assessment of nurses' knowledge regarding the utilization of appropriate methods for the identification of the patient, only 25% (n=61) of nurses were aware of the correct time to collect blood meanwhile 95.9% (n=234) of nurses were aware of the correct way of identifying the patient. Only 42.6% (n=104) were aware of the correct procedure in obtaining informed consent from patients. Furthermore, most of the nurses were aware of the correct tube (91.8%, n=224), required blood amount (52.5%, n=128), point of labeling (45.9%, n=112), labeling procedure (35.2%, n=86), and intervention after the labeling procedure (35.2%, n=86).

**Conclusion:** The study showed that awareness of pretransfusion blood bank sample collection among nurses is significantly low (CI 95%,  $P \leq 0.05$ ) in obtaining consent from patients, the correct time to collect blood, and the correct labeling point and labeling procedure and interventions after the labeling.

**Keywords:** Awareness, Pretransfusion, Sample Collection, Nurses

**PP 4.22 MRC\_NUR\_078****Attitudes regarding Expanded Program of Immunization (EPI) of Mothers who are having under five-year Children at Warakapola MOH area in Sri Lanka**

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**Introduction:** Immunization is the process of making a person immune to an infectious disease, typically through the administration of a vaccine. It is crucial for the proper development of children and prevents the spread of diseases. Sri Lanka has a high vaccine coverage of 99% for most infectious diseases. This study aimed to assess attitudes regarding the Expanded Program of Immunization (EPI) of mothers who are under five years children at Warakapola MOH area in Sri Lanka.

**Objective:** To assess attitudes regarding the Expanded Program of Immunization (EPI) of mothers who are under five years children in the Warakapola MOH area in Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 220 consenting mothers in the Warakapola MOH area in Sri Lanka using a simple random sampling method. A pre-tested, interviewer- administered questionnaire was used to collect data. Data was analyzed by SPSS version 25. Ethical approval was obtained from the Ethics Review Committee of the KIU (KIU\_ERC\_23\_052), and further permission was obtained from the director of the MOH office, Warakapola.

**Results:** The mean age of the mothers in the sample was 29 years. Of the 220 participants, the majority were Sinhalese (92%, n=203), Buddhists (86.4%, n=190), and married (86.8%, n=191). Sixty-five (29.5%) were educated up to A/L and 57 (25.9%) were educated up to diploma level. The majority of the mothers (91.82%, n=202) had positive attitudes towards the EPI schedule. When considering the attitudes towards vaccines in EPI schedule, 172 (78.18%) of mothers stated that child vaccination is important, 169 (76.81%) stated age- appropriate vaccination is important, and 163 (74.09%) stated that vaccination protects against deadly illness. The majority 152 (69.09%) agreed that they are made up of safe content. However, 78.36 (38.6%) of mothers did not have positive/negative attitudes regarding side effects associated with vaccination.

**Conclusion:** The study found majority of mothers had good attitudes regarding the EPI schedule. A qualitative approach is recommended to analyze misconceptions and to maintain optimum vaccination coverage.

**Keywords:** Attitudes, EPI, Mothers, Vaccination

PP 4.25 MRC\_NUR\_086

## A Cross-sectional Study on Knowledge, Attitudes, and Practices on the Maintaining Bio Bubble Concept among Tourist Hotel Staff in the Benthota Tourism Area

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**Introduction:** Tourism is a rapidly growing industry, crucial for developing countries. Sri Lanka, a major tourism destination, faced health, social, and economic crises due to the COVID-19 pandemic. The Bio-Bubble concept aims to provide a secure environment to address these issues.

**Objective:** To assess the knowledge, attitudes, and practices about the Bio Bubble concept, among hotel staff in the Benthota tourism area.

**Methodology:** A descriptive cross-sectional study was carried out among randomly selected and volunteered 153 participants from selected hotel staff in the Benthota tourism area. A self-administered researcher-developed questionnaire consisting of demographic characteristics, knowledge, attitudes, and practices about the bio-bubble concept was used to collect data. Data were analyzed using SPSS version 25. The study was ethically approved (KIU/ERC/22/006) by the ethical review committee at KIU.

**Results:** The majority of participants were Males (71.9%), Sinhalese (90.2%), Buddhists (70.6%), Married (56.9%) and completed Advanced level (63.4%). Most of the employees (35.9%) had 5-10 years of experience in the tourism field, (57.5%) had the best English proficiency in speech, (60.8%) had the best English language proficiency in listening and understanding, and (68%) were permanent in their jobs. Among the total participants, 86.3% (n=132) had good knowledge, positive attitudes (94.8 %, n=145), and adequate practices (93.5%, n=143) regarding the bio bubble concept. Knowledge about the bio bubble concept was associated with English language proficiency in speech ( $p=0.007$ ), English language proficiency in listening & understanding ( $p=0.008$ ), and current position ( $p=0.039$ ). while practices regarding the bio bubble concept were associated with the period of experience in the tourism field ( $p=0.026$ ), and current position ( $p=0.048$ ). Further, there was no association between attitudes regarding the bio bubble concept and socio-demographic data ( $p>0.05$ ).

**Conclusion:** Most participants had good knowledge, positive attitudes, and adequate practice about the bio bubble concept. Adhering our hotel sector to the Bio Bubble concept can give a recommendation to tourists for their health straggling questions. Through this step, we can keep the tourism sector up to a higher standard. Bio Bubble concept has massive health benefits in any kind of disease transmission by droplets. Should establish a sophisticated network system including all the related parties of the tourism 45 industry to facilitate the tracking and providing quality service with health regulations and advice.

**Keywords:** COVID-19, Tourism, Bio Bubble Concept

**PP 4.26 MRC\_NUR\_089****Prevalence and factors associated with Road Traffic Accidents among patients in a selected hospital in Galle District, Sri Lanka**

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**Introduction:** Road traffic accidents represent a significant cause of morbidity and mortality worldwide. Sri Lanka is also reporting high rates of Road Traffic Accidents (RTA) contributing to a considerable number of injuries and fatalities.

**Objective:** This research study was designed to assess the prevalence and factors associated with road traffic accidents among patients in a selected hospital in Galle District, Sri Lanka.

**Methodology:** A quantitative descriptive cross-sectional study was conducted among 300 patients who have faced RTAs and were admitted to the surgical wards of the Teaching Hospital Karapitiya (THK). The researcher developed a pretested interviewer-administered questionnaire that was used to collect data. It consisted of socio-demographic data, types of RTAs, types of injury patterns, and environmental and human factors associated with RTAs. Data was analyzed using Statistical Package of Social Science (SPSS) version 25. Descriptive and inferential statistics were performed using SPSS version 25 to analyze data. Ethical approval was obtained from the Ethics Review Committee of KIU, Sri Lanka (KIU/ERC/23/062).

**Results:** Overall, 64% (n=192) of RTAs reported to THK in the Galle district in the southern province during the time of the data collection period and 76.7% (n=230) were males. The majority (71.3%, n=214) were non-fatal. Motorcycle accidents (46.3%, n=139) were the most common type of accidents. Among the victims, the majority (62%, n=182) were reported with head injuries. The demographic factors associated with risk for RTAs were age (p = 0.004), religion (p = 0.001), working status (p=0.024), reported district (p=0.003), marital status (p = 0.004), and education level (p=0.000). There was an association between human factors as smoking while driving (p=0.008), having a medical history (p= 0.004), having a surgical history (p = 0.031), high speed (p=0.024), use of alcohol (p=0.015), listening to songs (p=0.007) and bad mental status at the time of the accident (p=0.004). The type of vehicle (motorcycle) was associated with risk for RTAs (p=0.000). Environmental factors associated with the risk for RTAs were the type of road (p=0.000), noisiness (p=0.014), and condition of the road (p=0.003).

**Conclusion:** Road Traffic Accidents in Sri Lanka are an important public health problem, predominantly in adult males, mostly due to motorcycle crashes. It is therefore important to reinforce preventive measures and a pre-hospital emergency service is urgently needed.

**Keywords:** Injuries, Environmental factors, Human factors

PP 4.27 MRC\_NUR\_090

## Post-operative Pain and Patient Satisfaction on Post-operative Pain Management among patients in Surgical Wards in a selected hospital in Colombo district Sri Lanka

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**Introduction:** Post-operative pain is one of the most common types of acute pain anticipated for up to 2 to 5 days. Careful pain evaluation and customizing institutional norms to each patient's needs can improve outcomes and satisfaction in post-operative pain management.

**Objective:** This study was designed to assess post-operative pain and patient satisfaction on post-operative pain management among patients in a selected hospital in the Colombo district, Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted with convenience sampling on a sample of 308 patients who had undergone surgeries at CSTH Kalubowila. A researcher-developed pretested interviewer-administered questionnaire was used to collect data and a validated Visual Analogue Scale was used to assess the level of pain. Data was computed and analyzed using Microsoft Office Excel and Statistical Package of Social Sciences (SPSS) version 25. Descriptive statistics and chi-square tests were used to analyze the data. Ethical approval was obtained from the Ethics Review Committee of KIU, Sri Lanka (KIU/ERC/23/069).

**Results:** Overall, among 308 patients, 57% (n=176) were females. 55.2% of them used prescribed oral paracetamol, diclofenac sodium, and both. Most of the participants (55.8%, n=170) encountered severe pain after their surgeries. Overall patient satisfaction on pain management was at a moderate (64.6%, n=199) level. The demographic factors associated with the level of pain were gender (p=0.004), age (p=0.0001), religion (p=0.0001), nationality (p=0.0001), marital status (p=0.0001), educational level (p=0.0001), and working status (p=0.0001). Factors associated with patient satisfaction on pain management were a calm quiet environment (p=0.04), explanations about pain medications (p=0.020), enough staff members to assess pain level (p=0.003) and support for satisfactory pain relief (p=0.003).

**Conclusion:** The study identified that most of the patients had severe pain (55.8%, n=170) after their surgeries and had a moderate (64.6%, n=199) satisfaction with pain management. The factors associated with pain and patient satisfaction in pain management suggest new opportunities to better understand and manage patient satisfaction. Hospitals can use a data-driven approach to identify clinical risk factors for poor patient satisfaction to support the development of specific interventions to improve patient's experience of care.

**Keywords:** Postoperative pain, Satisfaction, Surgical patients

**PP 4.28 MRC\_NUR\_094****Assessment of Knowledge, Compliance, and Barriers among Nurses related to Evidence-based guidelines for Ventilator Associated Pneumonia (VAP) Prevention in a selected Pediatric Intensive Care Unit, Colombo, Sri Lanka**

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**Introduction:** Ventilator-associated Associated Pneumonia (VAP) is a serious acquired infection among patients undergoing mechanical ventilation in intensive care units (ICUs) and can develop within 48 to 72 hours after intubation. Evaluation of the level of knowledge and compliance among critical care nurses regarding VAP prevention and evidence-based preventative measures crucial in improving awareness and practices among nurses.

**Objective:** This study aimed to assess the knowledge, compliance and barriers among nurses concerning Evidence-Based Guidelines (EBG) for the prevention of Ventilator Associated Pneumonia (VAP) at the pediatric intensive care unit at Lady Ridgeway Hospital for Children.

**Methodology:** A descriptive cross-sectional study was conducted among 190 pediatric nurses utilizing a stratified random sampling method at ICUs in Lady Ridgeway Hospital for Children (LRH), Sri Lanka. Data were collected using a pre-tested, self-administered Google form developed by the researcher based on scientific literature. Descriptive statistics such as frequencies and chi-square tests were used to analyze the data in the SPSS 26 version. The ethical approval was obtained from the Ethics Review Committee of KIU (KIU\_ERC\_23\_105).

**Results:** The study was conducted among 109 pediatric nurses at the ICU. All the participants were females, and the majority (55%, n=60) had >5 years of working experience. The means of the knowledge, compliance, and barriers to the implementation of prevention of VAP were 72.3(SD±9.5), 81.8 (SD±10.0), and 69.5(SD ±16.5) respectively. Most of the participants had good knowledge (56.9%, n=62) and compliance (67.9%, n=74) regarding the EBGs for VAP prevention. Additionally, 59.6% (n=65) had barriers (shortage of nursing staff, unavailability of resources, hospital cost control policies, fear of unpredictable adverse effects and undesirable patient outcome, enough time, lack of patient corporation) to implementation of the EBGs for VAP prevention. Age>30 years (p=0.018), higher education level (p=0.013), >5 years of working experience (p=0.006), type of ICU (SICU) (p=0.020), training on VAP (p=0.008) were associated with the good knowledge and compliance. Age>30 years (p=0.037), working experience >5 years (p=0.008), and type of ICU (SICU) (p=0.022) had barriers to the implementation of the EBGs for VAP prevention.

**Conclusion:** Overall, most of the nurses had good knowledge and compliance regarding EBGs for VAP prevention. However, most of the ICU nurses had barriers to the implementation of the EBGs for VAP prevention. The results of this study highlighted the necessity of creating new strategies for removing the barriers to compliance with VAP prevention guidelines to enhance the patient's health.

**Keywords:** Pediatric ICU nurses, Ventilator-associated Pneumonia, Evidence-based guidelines

## PP 4.29 MRC\_NUR\_095

## Assessment of Pain Beliefs and Post-operative Pain Outcomes after Spinal Cord Surgeries among patients in a selected hospital in Colombo, Sri Lanka

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**Introduction:** Spinal cord surgeries are complex medical procedures often accompanied by substantial postoperative pain. The pivotal role of pain beliefs in pain management, there is a paucity of research exploring the relationship between pain beliefs and postoperative pain outcomes in patients undergoing spinal cord surgeries. Understanding this intricate relationship is essential for enhancing pain management strategies and ultimately improving outcomes for patients.

**Objective:** This study aimed to assess pain beliefs and post-operative pain outcomes after spinal cord surgeries among patients in a selected hospital in Colombo, Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 180 patients who were admitted to neurosurgical units at National Hospital Kandy with a history of recent spine surgeries utilizing consecutive sampling. Data was collected using a pre-tested, interviewer-administered questionnaire. Pain beliefs and pain outcomes were assessed using a validated pain belief questionnaire and a pain outcome questionnaire. Descriptive statistics such as frequencies were used to describe the characteristics of the sample and were analyzed via performing a chi-square test in the SPSS 25 version. The ethical approval was obtained from the Ethics Review Committee, KIU (KIU\_ERC\_23\_067).

**Results:** Out of 180 patients, the majority were females (62.8%, n=113). The mean of the pain belief and pain outcomes scores were 74.2 (SD ±8.7) and 5.6 (SD±0.7) respectively. Mean scores of pain outcome categories were pain severity (6.4 SD±1.0), pain interferes with the functions (7.6 SD±1.3), pain interferes with the emotions (8.2 SD±1.2) and side effects (1.6 SD±1.2). All the participants demonstrated a positive perception of pain beliefs. The majority of the patients (86.7%, n=156) achieved good scores for the pain outcomes. A significant association was found between pain beliefs and pain outcomes of the patients (p=0.0001).

**Conclusion:** Overall, all the participants had a positive perception of pain beliefs and the majority achieved good scores for pain outcomes in this study. Patients' perceptions of pain significantly influence their recovery. Healthcare providers can create more individualized and successful pain management strategies by addressing the intricate connection between pain beliefs and pain outcomes which will improve the patient's overall contentment and quality of life.

**Keywords:** Pain beliefs, Pain outcomes, Spinal injuries

## PP 4.30 MRC\_NUR\_097

## Awareness, Attitudes, and Barriers to Practicing and Maintaining Electronic Documentation among Government Nursing Officers in Sri Lanka

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**Introduction:** Electronic documentation is an emerging trend in many fields including nursing. It is positively affecting accuracy, time management and maximum use of resources, therefore it will be important to identify awareness and attitude barriers for nursing offices in electronic documentation.

**Objective:** To assess the awareness, attitudes, and barriers to practicing and maintaining electronic documentation among government nursing officers in Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among the nursing officers in the government sector in Sri Lanka. A sample of 396 nursing officers was enrolled by network sampling and validated, pre-tested online questionnaire was used to collect data. Google Form link of the questionnaire was shared on popular social media platforms (WhatsApp, Viber, and Messenger). Gathered data were entered into Microsoft Excel 2010, and SPSS (version 26.0) was used as a statistical tool to analyse descriptive statistics.

**Results:** There were 392 participants, giving a 98.9% response rate, and the majority of them were female. Among the total participants, 58.2% of the nurses had good awareness of electronic documentation, and 41.8% had poor awareness. Also, 63.6% of the participating nurses had poor attitudes regarding electronic documentation, while 36.4% of them had good attitudes. Only one-fourth of the nurses practice the Electronic Health Record system in their current working hospital. Furthermore, only 28% of the nursing officers had practical knowledge about EHR systems. Management support, relevant instruments, appropriate guidance, receiving suitable maintenance activities, and staff with proper knowledge were the factors affecting practicing and maintaining electronic documentation. The technical ability, cost of use, workflow breakups, trained staff, and privacy concerns are the challenges to implementing and practicing EHR in a hospital setup.

**Conclusion:** The findings revealed that average awareness towards EHR though a considerable count indicates a negative attitude. Also, there is a need for the development of practical aspects of the EHR.

**Keywords:** Electronic documentation, Health information, Nursing officers

## PP 4.31 MRC\_NUR\_100

## Assessment of the Dynamics of COVID-19 Misinformation Trends in Sri Lanka: A Comprehensive study

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**Introduction:** COVID-19 pandemic, caused by the SARS-CoV-2 virus, has been marked by the rapid dissemination of misinformation, particularly via social media platforms. This misinformation encompasses various aspects, including virus transmission, prevention, vaccination, and treatment. Such false information significantly threatens public health efforts in controlling the pandemic, impacting health decisions and behaviours. The findings can guide policymakers, healthcare professionals, and communication experts in developing targeted interventions to counter misinformation and promote accurate information, ultimately contributing to more effective public health communication strategies in Sri Lanka.

**Objective:** To assess COVID-19 health literacy-related misinformation, COVID-19 transmission-related misinformation, and COVID-19 prevention-related misinformation trends in Sri Lanka.

**Methodology:** A descriptive cross-sectional survey was conducted among 280 adults in Sri Lanka using a pre-tested web-based, self-administered Sinhala and English versions of a questionnaire that was distributed via social media. Participants were recruited through a network sampling technique. Informed consent was obtained, with the questionnaire. Data analysis was done using IBM SPSS (Version 25). Frequencies and percentages were used to illustrate descriptive statistics. Ethical approval for the study was obtained from the Ethics Review Committee of KIU (KIU/ERC/23/006).

**Results:** The average age of the participants was 36 years ( $\pm 9.68$ ), with a majority being females (61.4%, n=172) and Sinhalese (86.9%, n=252). Many of the participants (98.9%, n=277) had received vaccinations, with 55.7% (n=156) having taken three doses. A majority (53.6%, n=?) had not been contacted with COVID-19 during the pandemic, and 42.1% (n=118) had undergone PCR testing. In terms of information sources, social media (67.9%, n=190) and doctors (62.9%, n=176) were prominent choices. A majority displayed significant misinformation regarding transmission methods (67.5%, n=189), but most held positive views on prevention strategies (88%, n=244).

**Conclusion:** This research aims to provide valuable insights into the dynamics of COVID-19 misinformation in Sri Lanka, shedding light on its sources, dissemination channels, prevalent themes, and impacts on public perceptions and behaviors. It was revealed that misinformation persists, particularly about COVID-19 transmission and prevention in Sri Lanka. As a remedy to this trend, enhancing the public's ability to discern and combat misinformation, is crucial. And in turn it will promote vaccine acceptance and public health altogether.

**Keywords:** COVID-19, Misinformation, Digital health literacy

**PP 4.32 MRC\_NUR\_101****Perceived Misbelieves of COVID-19 Vaccination among Healthcare Workers in National Institute of Mental Health Sri Lanka**

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**Introduction:** The fight against the COVID-19 pandemic on a worldwide scale has highlighted the fundamental significance of vaccination as a vital instrument to stop the virus' spread and save lives. One of the first groups being offered vaccines is healthcare professionals. A significant portion of healthcare workers, although having substantial medical education and training, are thought to have misconceptions about COVID-19 immunization. Assessing healthcare personnel's apparent misconceptions about the COVID-19 vaccine is therefore essential.

**Objective:** To assess perceived misbeliefs of COVID-19 vaccination among healthcare workers in the National Institute of Mental Health Sri Lanka.

**Methodology:** The study was conducted using a pre-tested, interviewer-administered questionnaire including sociodemographic information, awareness of vaccines, and perceived vaccination misbeliefs, as a descriptive cross-sectional study among 298 healthcare workers. The National Institute of Mental Health (NIMH) and the Ethics Review Committee of KIU (ERC/22/009) granted ethical approval. A simple random sampling method was used to recruit participants from the healthcare workers and data analysis was conducted utilizing percentages and standard deviation in SPSS (version 25).

**Results:** Most of the participants (69%, n=206) were females while the majority were nurses (41%, n=122), followed by doctors (20%, n=60), paramedics (10%, n=30), and supportive staff (29%, n=86). Most of the respondents were married (51%, n=152), had tertiary education (73%, n=218), and had five to ten years of job experience. A significant percentage (42%, n=125) were within the 36–50 age group. A vast majority of individuals received COVID-19 vaccines; however, 92% (n=274) have only received the first dose of the vaccine, whereas most people (48%, n=143) have had AstraZeneca as the vaccine. The majority (60%, n=119) believed that receiving a vaccination reduces the risk of acquiring COVID-19. However, 91% (n=271) believed that innate immunity is preferable to herd immunity. The majority (60%, n=179) disagreed that one of the side effects of the COVID-19 vaccination is blood clotting, while the majority (54%, n=161) thinks the vaccine should be rejected because of issues that arise after vaccination such as pain, swelling, and redness. Most participants (59%, n=176) were skeptical of the government's method and criteria for vaccination, whereas the majority (68%, n=203) agreed that people who had strong reactions or allergies or who were seriously ill should not be given the COVID-19 vaccine. Just more than half of the participants (51%, n=152) disagreed that the COVID-19 vaccination will result in miscarriage, and subfertility (58%, n=173). The majority (54%, n=161) disagreed that breastfeeding mothers should not have the vaccine, while the majority (80%, n=238) believed pregnant women should have the vaccine.

**Conclusion:** In conclusion, vaccination rates with 1<sup>st</sup> dose against COVID-19 were relatively high while the majority believe that receiving a vaccination reduces avoiding acquiring COVID-19 further also identified consequences after vaccination as one of the reasons for refusing the vaccination.

**Keywords:** Perceived misbelieves, COVID-19 vaccine, Healthcare workers

## PP 4.33 MRC\_NUR\_102

**Prevalence and Factors Associated with Gestational Diabetic Mellitus (GDM) among Pregnant Mothers attending De Soysa Hospital for Women, Sri Lanka**

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**Introduction:** Gestational Diabetes Mellitus is a common medical complication of pregnancy and the prevalence of undiagnosed hyperglycemia and even overt diabetes in young women is increasing. Multifactorial causes influence GDM and possible related maternal and fetal complications are increased with GDM.

**Objective:** This study aimed to determine the prevalence and factors associated with Gestational Diabetes Mellitus among pregnant mothers attending to De Soysa Hospital for Women.

**Methodology:** A descriptive cross-sectional study was conducted among 210 pregnant mothers in obstetric wards of De Soysa Hospital who were selected by the systematic random sampling technique. Data was collected using a self-administered questionnaire. Data was analyzed by using descriptive and inferential statistics using SPSS version 25. The study was ethically approved.

**Results:** The majority of mothers were between 25-45 years old (67.1%), married 84.8%, and muslim (43.8%). The majority did not have complications (61.4%). However, large babies (16.7%), pre-term delivery (11.9%), stillbirth (5.7%), and congenital anomalies (3.8%) were observed. GDM was prevalent among 24.2% of participants and 57.6% had a positive family history of diabetes. Also, 30% had having history of GDM in former pregnancies. GDM was associated with pregnancy-related complications (0.029), consumption of high-sugar beverages (p=0.018), and walking (p=0.025).

**Conclusion:** A considerable proportion is suffering from GDM and GDM is associated with pregnancy-related complications, consumption of high-sugar beverages, and walking. Further studies are recommended to identify the associated risk factors and strategies that need to be taken to implement awareness on reducing the possible risk.

**Keywords:** Gestational Diabetes Mellitus, Prevalence, Associated factors, Pregnant mother

**PP 4.33 MRC\_NUR\_103****Prevalence of Perceived Occupational Hazards among Nurses at selected hospitals in the Kegalle District, Sri Lanka**

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**Introduction:** Healthcare, which consists of nearly 12% of the global working population, is considered one of the most hazardous occupations. Occupational hazards. Involving many special fields such as physical, chemical, psychological, biological, and electrical/mechanical determine the health and safety of healthcare employees.

**Objective:** The study aimed to assess the prevalence of perceived occupational hazards among nurses at selected hospitals in the Kegalle District, Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 220 nurses at two selected hospitals in Kegalle district, Sabaragamuwa province, Sri Lanka using a simple random sampling method. A pre-tested, interviewer-administered questionnaire was used to collect data after obtaining informed written consent. Data was analyzed using descriptive and inferential statistics using IBM SPSS version 25. Ethical approval was obtained from the Ethics Review Committee of KIU (KIU/ERC/22/076).

**Results:** A total of 220 nurses volunteered in the study. The majority were female (94%,n=207), Sinhalese (98%,n=216), Buddhists (95%,n=209). Of the participants, 71 (32.3%) were undergraduates and 36 (16.4%) were graduates. Needle prick injuries (36.7%), back pain (34%), body pain (40%), chemical injuries (43%) cellulitis (45%), blood-borne infections (47%), falls (64%), fractures (51%), skin allergy (53%), miscarriages (66%), and fatigue (51%) were common perceived occupational hazards. Factor analysis (PCA; Kaiser-Varimax rotation) identified four common factors for perceived occupational hazards (1) biological and physical, (2) chemical and radiation, (3) environment-related occupational hazards, and (4) pain). Among those factors, the highest mean value was reported for the biological and physical injuries (15.67+10.43) indicating an increased prevalence of occupational hazards.

**Conclusion:** The study found the majority of nurses perceive biological and physical injuries. Furthermore, the risk factors for occupational hazards can be assessed and preventive measures can be taken to reduce common hazards.

**Keywords:** Nurses, Occupational hazards, Prevalence

PP 4.34 MRC\_NUR\_104

## Prevalence and Factors Associated with Animal Bite among Adult Patients attending General Hospital Matara

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**Introduction:** Animal bites pose a major public health problem in children and adults worldwide. Numerous animal species have the potential to bite humans. However most important are those arising from dogs, cats, and snakes. Animal attacks on people are still a huge and social problem worldwide resulting in millions of injuries and thousands of deaths.

**Objective:** Therefore, this study was conducted to assess the prevalence and factors associated with animal bites among adult patients attending General Hospital Matara.

**Methodology:** A descriptive cross-sectional study was conducted among patients admitted following an animal bite at medical and surgical wards in General Hospital Matara. A simple random sampling method was used to recruit study participants. Data was collected using a pretested interviewer-administrated questionnaire. Data analysis was conducted with SPSS 25 and ethical approval was granted by the Ethics Review Committee, KIU, Sri Lanka.

**Results:** Among 100 participants in the study, 62% were males. The mean age was 45.66 years. The highest prevalence for animal bites was dog bites (66.0%) and the majority were domestic animals (56.0%), not vaccinated (46.0%) and most bites happened in rural areas (54.0%). Type of animal bites were associated with provoking the animal, feeding, accidental contact, disturbing sleep, walking without shoes or boots and a light source at night, unclean environment, and use of alcohol.

**Conclusion:** Dogs are the primary animals that bite people. There is a high incidence of animal bites in rural areas. Multifactorial causes are influencing different types of animal bites.

**Keywords:** Animal bite, Prevalence, Associated factors



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# Multidisciplinary Research Conference 2023

**Proceedings**

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## Poster Presentations

**Technical Session 5:  
Health & Multidisciplinary Sciences**

## PP 5.1: MRC\_BMS\_003

## The Effect of Zinc Supplementation on Blood Sugar Reduction; A Systematic Review

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**Introduction:** The escalating prevalence of diabetes mellitus has raised concerns globally, necessitating effective interventions. Among emerging strategies, the potential role of zinc supplementation in blood sugar management has gained attention due to its involvement in insulin function and glucose metabolism.

**Objective:** This research conducted a systematic review of existing literature to examine the effects of zinc supplementation on blood sugar reduction. The goal is to evaluate the relationship between zinc intake and blood sugar levels, insulin sensitivity, and related metabolic parameters.

**Methodology:** The research adopts a rigorous approach, involving a systematic review of randomized clinical trials (RCTs). The search encompassed prominent databases such as Google Scholar, PubMed, Science Direct, and Web of Science. The inclusion criteria focused on human studies investigating zinc supplementation's impact on blood sugar levels in individuals with diabetes and prediabetes.

**Results:** A comprehensive search across academic databases yielded 47 articles, with 19 meeting the inclusion criteria. Zinc supplementation showed mixed results: some trials demonstrated significant improvements in blood sugar and insulin parameters, while others reported modest changes or non-significant outcomes. Further research with standardized methodologies is needed to establish consistent efficacy.

**Conclusion:** Zinc supplementation shows promise in aiding blood sugar reduction for individuals with type 2 diabetes and prediabetes, with varying outcomes in studies. While some report significant improvements in glucose levels and insulin resistance, others show more modest changes. Additional well-designed trials with larger samples and longer durations are crucial to establish consistent efficacy. Zinc supplementation is suggested as a supportive measure, not a primary solution, in adjunctive diabetes management. Standardized methodologies and exploration of zinc's mechanisms are essential for future research and clinical application.

**Keywords:** Diabetes mellitus, Zinc, Blood sugar, Type 2 Diabetes, Prediabetes

**PP 5.2: MRC\_BMS\_004****Assessment of the relationship between Body Mass Index and Foot Arch Type and the Impact of Obesity on Flat Foot among young adults in Sri Lanka**

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**Introduction:** Foot arch type is another factor that determines foot morphology. There are four main foot arch types: normal, flat, high, and very high. Flat foot is one of the commonest concerns and is simply referred to as fallen arches, which means, a hollow arch under the foot is flatter than usual. The excessive body mass index (BMI) may have an influence on structural and functional changes of the foot arch among people.

**Objective:** This study aimed to investigate the relationship between BMI and foot arch type among young adults in Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 346 undergraduates aged 18 years and above at KIU. BMI was obtained using Karadar scan and the foot arch type was determined by observing the structural features and shape of the foot arch. Statistical analysis was performed using SPSS version 28 software with descriptive and inferential statistics. Ethical approval was obtained from the Ethics Review Committee of KIU (KIU\_ERC\_22\_084).

**Results:** Most of the participants were recorded to have a normal foot arch type (n=314), which included 75.4% (n=261) of males, and 86% (n=298) of females. Additionally, among the participants, flat foot (n=23), high arch foot (n=8), and very high arch foot type (n=1) were detected. The highest prevalence of flat feet was reported among females (10.1%) compared to males (7.6%). Results showed that the highest distribution of flat feet was recorded in the obese group (n=16) followed by, overweight (n=7), normal (n=6), and underweight (n=3). According to the results, there was a statistically significant association between foot arch type and BMI (p=0.000). Also, the Pearson correlation showed there was a significant negative correlation between BMI and foot arch type (p=<0.001, r=-0.150).

**Conclusion:** These findings indicate an association between BMI and foot arch type suggesting that excessive body mass might have an impact on foot structure among the young adult population.

**Keywords:** BMI, Obese, Foot Arch Type

## PP 5.3: MRC\_BMS\_005

## Assessment of Antibacterial Activity of selected Antiseptic and Herbal Soaps available in Sri Lanka against selected Skin Pathogens

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**Introduction:** Numerous types of antiseptic and herbal soaps labeled as antibacterial are widely available in Sri Lanka. However, their antimicrobial spectrum of activity or their significance in skin infections are not adequately mentioned.

**Objective:** To evaluate the antibacterial activity of antiseptic and herbal soaps available in Sri Lanka against selected human skin pathogens.

**Methodology:** Eight soap samples were selected from five major supermarkets categorizing them as commercially available, and medically recommended antiseptic soaps and herbal soaps. Selection criteria encompassed product sales data, medical endorsements, and label information. The samples were evaluated for their antibacterial properties using agar-well diffusion assay, determining the minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC). The tested bacteria included *Staphylococcus aureus* (ATCC 25923), a common skin pathogen, as well as *Pseudomonas aeruginosa* (ATCC 27853) and *Klebsiella pneumoniae* (ATCC 700603), typically associated with skin problems in immunocompromised individuals.

**Results:** Among the selected pathogens, only *Staphylococcus aureus* exhibited zones of inhibition (ZOI) for all the tested samples. The medically recommended antiseptic soaps revealed the maximum antibacterial action yielding the highest ZOI (15±1.0mm), whereas most of the herbal soaps showed less activity with the lowest ZOI (9.2±0.3mm) at 150 mg/ml concentration. MIC values for *Staphylococcus aureus* ranged from 12.5 to 25 mg/ml for antiseptic soaps and 25 to 50mg/ml for herbal soaps, indicating the highest susceptibility. Nevertheless, both the antiseptic and herbal soaps against *Pseudomonas aeruginosa* and *Klebsiella pneumoniae* ranged from 12.5 to 100 mg/ml.

**Conclusion:** Tested samples in the current study demonstrated varied levels of antibacterial activity indicating their potential contribution to the control of the tested organisms. Evidence of ZOI suggests that both medically recommended, and commercially available antiseptic soaps have a stronger antibacterial effect than herbal soaps against tested skin pathogens. However, further studies are necessary to assess their effectiveness against other skin pathogens.

**Keywords:** Antibacterial activity, Antiseptic soaps, Herbal soaps

**PP 5.4: MRC\_BMS\_007****Evaluating *Spirulina (Arthrospira)* for Hypolipidemic Activity:  
An evidence-based review**

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**Introduction:** '*Spirulina*', a free-floating spiral filamentous microalga, is a member of the photosynthetic cyanobacteria class, found abundantly in high-salt alkaline water bodies. With a growing global prevalence of dyslipidemia and associated cardiovascular risks, seeking alternative therapies are crucial. *Arthrospira platensis* (*S. platensis*), *Arthrospira maxima* (*S. maxima*), and *Arthrospira fusiformis* (*S. fusiformis*) are extensively studied attributed to their potential therapeutic properties due to their bioactive compounds; phycocyanin, chlorophyll, and antioxidants, which may possess lipid-lowering mechanisms.

**Objective:** This review aims to assess the evidence-based clinical applications of *Arthrospira* spp. for hypolipidemic activity.

**Methodology:** A comprehensive review was done with selected evidence from 31 scholarly articles searched from Google Scholar, and PubMed databases in the past decade.

**Results:** Spirulina supplementation with tablets, capsules, or extracts has been evaluated in several subpopulations. Individuals with dyslipidemia experienced significant reductions in Triglyceride (TG), Total Cholesterol (TC), Low-Density Lipoprotein (LDL), Very-Low Density Lipoprotein (VLDL), and TC/HDL ratio, with no significant improvements in High-Density Lipoproteins (HDL). However, patients with metabolic syndrome expressed increased HDL with significant reductions in TC, LDL, and VLDL. Patients with cardiovascular disease and non-alcoholic fatty liver showed improved TG levels with significant reductions in LDL, TC, and TC/HDL ratio, along with significant improvements in HDL. In patients with chronic obstructive pulmonary disease (COPD), significant differences in TC and HDL were evident except for TG levels. Type-II diabetes patients demonstrated reduced TG, TC, LDL, TC/HDL, and LDL/HDL, along with a marginal increase in HDL while patients with hyperlipidemic nephrotic syndrome showed significant reductions in TG, TC, LDL, TC/HDL, and LDL/HDL. Furthermore, HIV-infected patients with cardiometabolic syndrome displayed a significant increment in HDL and a significant reduction in TC, LDL, and TG. Additionally, evidence supports weight loss with reported reductions in BMI in obese patients.

**Conclusion:** This review highlights evidence suggesting Spirulina supplementation for improving lipid metabolism. Further research is needed to evaluate Spirulina's role in clinical practice as a hypolipidemic agent and find optimal dosing, duration of supplementation, safety profile, and potential interactions with other lipid-lowering interventions.

**Keywords:** Blue-green algae, Lowered cholesterol, Lipid profile

## PP 5.5: MRC\_BMS\_017

## Fast Food Consumption and Its Association with BMI in a Selected Undergraduate Population in Sri Lanka

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**Introduction:** Fast food consumption practices have been popular among undergraduates of Sri Lanka for a variety of reasons such as quickness, cheapness, and taste. Fast food consumption among undergraduates is about 54% and students consume fast foods more than once a day. Fast food consumption can lead to changes in BMI which directly affects the health of undergraduates.

**Objective:** This study aimed to investigate the relationship between fast food consumption and BMI in a selected undergraduate population.

**Methodology:** A descriptive cross-sectional study was conducted enrolling 264 undergraduates at KIU. Ethical approval was obtained from the ethics review committee, of KIU (KIU/ERC/22/002), and informed written consent was taken from each participant. Fast food practices were assessed using a standard questionnaire and BMI was calculated using participants' weight, and height and classified according to WHO classification for Asians. Data were analyzed using SPSS 25 software. Chi-square test was used to assess the associations between fast food practices and BMI. The level of significance was set to  $p = 0.005$ .

**Results:** Fast food consumption was seen in 81% ( $n = 215$ ) of the participants, with 42% ( $n = 91$ ) consuming once or twice weekly and 70% ( $n = 151$ ) taking fast food for dinner. Among the respondents, 47% ( $n = 123$ ) had a normal BMI, while overweight, obese, extremely obese, and underweight individuals were found to be 15% ( $n = 39$ ), 17% ( $n = 45$ ), 4% ( $n = 11$ ), and 17% ( $n = 46$ ), respectively. No statistically significant association was seen between fast food consumption and BMI ( $p = 0.640$ ).

**Conclusion:** The BMI of participants ranged from normal, overweight to obese. Even though 81% ( $n = 215$ ) consumed fast foods, the majority (47%,  $n = 123$ ) had a normal BMI. There was no statistically significant association between fast food consumption and BMI of the selected population.

**Keywords:** Body mass index (BMI), Fast food consumption, Undergraduate

## PP 5.6: MRC \_BMS\_088

## Assessment of Microbiological Quality of Household Drinking Water and Water Usage Practices of Undergraduates of KIU Campus Residing in the Western Province, Sri Lanka

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**Introduction:** Drinking sufficient clean water is essential for a healthy lifestyle. According to the estimation of the World Health Organization (WHO), 4,000 children die every day from waterborne diseases due to polluted drinking water. Contamination and poor drinking water sanitation are linked to most bacterial diseases caused by *Escherichia coli* (*E. coli*).

**Objective:** To assess water usage practices and microbiological quality of household drinking water of undergraduates of KIU, residing in Western province.

**Methodology:** A cross-sectional study was conducted among 250 participants. Data was collected using an online questionnaire and entered into a database using the IBM SPSS version 26, statistical software. Household drinking water samples from all the participants were collected to detect the total coliform number and *E. coli* by the membrane filtration method and Most Probable Number method. The observations were compared with the Sri Lanka standard 614 guidelines.

**Results:** Out of the subjects chosen, the majority 145 (58.0%) of the study population used water from the national water supply. Only 206 (82.4%) of students used water treatment facilities and the majority of the students 98 (39.2%) used boiled & and filtered water. Only 116 (46.4%) of students used more than two liters of water per day. However, the most common disease condition for them was dental disease. 221 (88.4%) of students did not report any long-term congenital disease. Although 152 (60.8%) of undergraduates clean their water containers daily, it is reported that 15 (6%) of the subjects never clean their residential water storage tanks. The most probable number (MPN) value and membrane filter count per 100 ml is <2 for all the samples.

**Conclusion:** The majority were engaged in good hygiene practices regarding the prevention of waterborne diseases. The absence of coliform and *E. coli* in water samples indicates the possibility that fecal contamination may not have taken place.

**Keywords:** WHO, Water Quality, *Escherichia coli*

## PP 5.7: MRC\_BMS\_092

## Could Computational Analysis Unlock Promising Malaria Treatments? A Protein- Ligand Docking of Potent Ligands on Oxidoreductase (PDB ID: 4MZC)

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**Introduction:** Malarial cases, especially in developing countries pose challenges in increasing the mortality risks. In addition, resistance towards currently used anti-malarial treatments has intensified the need for developing novel drug targets.

**Objective:** The objective of the study was to target malarial proteins and explore the best protein-ligand complex with potential ligand-binding sites using computational methods as a new intervention to combat malarial disease.

**Methodology:** The malarial protein, Oxidoreductase (PDB ID: 4MZC) was retrieved from RCSB-PDB whilst the three-dimensional structures of the ligands (phytochemicals) with anti-malarial properties were retrieved from PubChem. Protein-ligand docking was performed via AutoDock 4.2.6. Grid parameters were set by covering the entire surface of the protein as follows: X=78, Y=86, Z=68, grid spacing=0.497 to allow protein-ligand binding. Lamarckian Genetic Algorithm (GA) was used to find the optimal docking position and the docking parameters were set as 10 GA runs and 150 population size. The results of the protein-ligand complexes were analysed using the RMSD table and the best protein-ligand complex was determined using the lowest binding energy and inhibition constant. Meanwhile, BIOVIA Discovery Studio was used to identify the potential ligand binding sites.

**Results:** Phytochemicals such as Conessine (-9.39kcal/mol), Mahanine (-9.24kcal/mol), Serpentine (-8.34kcal/mol), Microdontin (-7.82kcal/mol), Tehranolide (-7.79kcal/mol) exhibited low binding energies. This identifies Conessine and Mahanine as stable complexes with their lowest binding energies with an inhibition constant (K<sub>i</sub>) of 0.131μM and 0.169μM, respectively. These findings imply greater binding affinity and stability due to the presence of low binding energy, and K<sub>i</sub> values. Additionally, ASN13, ILE16, GLU17, TYR65, LEU69, PHE79, ASN81, LYS82, ASP83, and VAL84 were identified as potent ligand binding sites in both Conessine and Mahanine.

**Conclusion:** In conclusion, Conessine and Mahanine act as potent ligands for 4MZC to treat Malaria using computational analysis. In this context, Conessine and Mahanine which could be extracted from *Holarrhena antidysenterica* and *Micromelum minutum*, respectively suggest novel therapeutic interventions to cure Malaria using further wet-lab experiments.

**Keywords:** Auto Dock, Oxidoreductase, Binding energy

**PP 5.8: MRC\_PSY\_002****The Relationship between Authoritative Parenting Style & Personality among Undergraduates in Sri Lanka**

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**Introduction:** The influence of parenting styles on personality has received surprisingly little attention, and studies have identified a varied relationship between four key parenting styles and personality. Authoritative parenting style was associated with positive outcomes in children, including higher self-esteem, better academic performance, and fewer behavioral problems, and was characterized by higher levels of warmth, responsiveness, and control.

**Objective:** The main objective of the current study was to assess the relationship between authoritative parenting style and personality among undergraduates in Sri Lanka.

**Methodology:** A descriptive cross-sectional study was conducted among 384 undergraduates in Sri Lanka by using the convenience sampling method using the Socio-Demographic Questionnaire, Perceived Parenting Styles Scale (PPSS), and Big Five Personality Questionnaire (BFI). Participants were recruited adhering to the ethical guidelines, and data collection was conducted through a self-administered online questionnaire via selected social media platforms. The data were analyzed mainly using Multiple Linear Regression and One-Way Anova t-test through statistical analysis software, SPSS 27.

**Results:** The sample included 227 females (59.1%), 157 males (40.9%), and 318 (82.8%) aged between 20 to 40 years. The study showed that the authoritative parenting style was the most prominent parenting style (98.44%), and some personality traits, agreeableness (98.70%), and extraversion (97.40%) showed the highest rate among undergraduates in Sri Lanka. The results revealed a significant positive correlation between agreeableness (+.512,  $p < 0.001$ ), extraversion (+.389,  $p < 0.001$ ), conscientiousness (+.617,  $p < 0.001$ ), and openness (+.506,  $p < .001$ ) personality traits with authoritative parenting style, while only neuroticism personality trait (+.378,  $p < 0.001$ ) showed a negative correlation with authoritative parenting style. No significant difference was found in authoritative parenting styles and personalities between male and female undergraduates.

**Conclusion:** The findings concluded that there is a significant relationship between authoritative parenting style and personality among undergraduates in Sri Lanka. Accordingly, authoritative parenting style has a significant positive correlation for extraversion, agreeableness, openness, and conscientious, while having a negative correlation for neuroticism among undergraduates in Sri Lanka.

**Keywords:** Big Five Personality Traits, Authoritative parenting style, Undergraduates



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# Multidisciplinary Research Conference 2023

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**Proceedings** MRC 2023

**Poster Presentations**

**Technical Session 6: Management**

**PP 6.1 MRC\_ACF\_001****Effect of Working Capital Management on Shareholders Returns –  
Manufacturing Companies listed in Colombo Stock Exchange**

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**Introduction:** Working Capital Management (WCM) is one of the crucial aspects of financial management in determining the financial performance of an organization. In the current context, most manufacturing companies do not sufficiently focus on maintaining an adequate level of inventories, debtors, cash, and other working capital components. There is a dearth of empirical studies in this area of study relating to listed manufacturing companies in Sri Lanka. Therefore, the current research investigates on working capital management and its effect on shareholders' returns in the Sri Lankan manufacturing industry.

**Objective:** To examine the effect of working capital management on shareholders' returns – manufacturing companies listed in CSE.

**Methodology:** The current research study consists of a sample of 30 listed manufacturing organizations in the Colombo Stock Exchange (CSE). The data was gathered through published audited annual reports for the period from 2012 to 2022. As independent variables, Inventory Conversion Period, Debtors Conversion Period, Creditors Conversion Period, and Cash Conversion Cycle were applied. As dependent variables, Earnings Per Share was applied for the current study. The Panel data regression method was used as the main regression tool for the present study.

**Results:** Panel data regression result represents the weak negative relationships between the Cash Conversion Cycle, Inventory Conversion Period, and Creditors Conversion Period with Earnings Per Share and a weak positive relationship between Debtors Conversion Period and Earnings Per Share.

**Conclusion:** The research findings of this study provide practical guidance to manufacturing companies for managing their working capital productively. This research study provides investors with a useful metric to assess a firms' WCM practices. The present study provides valuable insights into the effect of WCM on shareholders' returns for manufacturing organizations listed in the CSE. As practical implications, this study will be useful for managers, investors, and financial analysts to maximize profitability and shareholder value.

**Keywords:** Working Capital Management, Shareholders' return, Listed Manufacturing Companies

## PP 6.2 MRC\_ACF\_002

### Factors Associated with Profitability in Listed Commercial Banks in Sri Lanka

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**Introduction:** The banking industry is one of the crucial aspects of economic growth. Commercial banks play a significant role in managing the economy in Sri Lanka through processes including accepting deposits from those with extra cash and lending it to those looking to participate in development projects. Even though numerous past literatures have been conducted based on the factors affecting the profitability of commercial banks, there is hardly any research found within the Sri Lankan context.

**Objective:** To determine the factors associated with profitability with special reference to listed commercial banks in Sri Lanka

**Methodology:** The current research study consists of a sample of 13 listed domestic commercial banks in the Colombo Stock Exchange (CSE). The data was collected through published audited annual reports for the period from 2013 to 2022. Bank size, capital adequacy, liquidity risk, and deposit ratio were used as independent variables. Return on assets was applied as the dependent variable. The panel data research methodology was utilized as an estimation technique to analyse the data.

**Results:** Panel data regression result shows significant relationships between bank size, capital and deposits, and banks' profitability, and no significant relationship was seen between bank liquidity and banks' profitability.

**Conclusion:** The research findings of this study provide practical guidance to Sri Lankan commercial banks for identifying the most significant factors that are affecting the profitability. The present study will be beneficial for the management of the banks to improve the profitability levels, enable policymakers to revise existing practices, and aid shareholders to find certain proposals. In view of these findings, some recommendations may be functional for bank regulatory authorities to sustain the strength and stability of the banking sector.

**Keywords:** Listed Commercial Banks, Profitability, Colombo Stock Exchange

## PP 6.3 MRC\_ACF\_003

## The Effect of Receivable Management on the Profitability of the Construction Sector in Sri Lanka

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**Introduction:** Accounts receivable is one of the major problems available in the utility service-providing sector. The contemporary business world is mostly based on the post-payment method where the products are sold, and services are rendered before the payment is made. Receivable management is a process of managing receivables within an organization in a systematic way. The problem noticed by the researcher in each of these companies under the construction sector is the existence of large outstanding receivable balances. There is a dearth of empirical studies in this area of study relating to listed construction companies in Sri Lanka. Therefore, the present study examines receivable management and its impact on profitability in the Sri Lankan construction industry.

**Objective:** To determine the effect of receivable management on the profitability of listed construction companies on the Colombo Stock Exchange.

**Methodology:** The present study consists of a sample of 28 listed construction organizations in the Colombo Stock Exchange (CSE). The data was gathered through published audited annual reports for the period from 2018 to 2022. The number of days accounts receivable accounts receivables to current assets, accounts receivable to total assets, and accounts receivable to working capital were applied as independent variables. Return on assets was applied as a dependent variable. The panel data regression method was utilized as the main statistical tool in the current study.

**Results:** Panel data regression result represents significant negative impacts of accounts receivables to Current Assets Ratio and Number of days Accounts Receivables on Return on Assets and significant positive impacts of Accounts Receivables to Total Assets Ratio and Accounts Receivable to Working Capital Ratio on Return on Assets.

**Conclusion:** The current study will associate organizations with managing the accounts receivable efficiently. Moreover, this study may provide some hints for financial managers and managerial decision-makers to manage accounts receivable at the optimal level which will lead the organization toward profitability. However, the current study will be helpful for consumers to easily understand the behaviour of credit purchases. Furthermore, this research will be more beneficial for investors, consumers, researchers, etc.

**Keywords:** Receivables Management, Profitability, Construction Industry

## PP 6.4 MRC\_ACF\_004

## Staff Skills and Knowledge of Accounting Information Systems on Fraud Detection in the Banking Sector in Sri Lanka

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**Introduction:** In the modern world, information systems are crucial as they are the backbone of any business organization and it is a system that provides vital information for planning, organizing, directing, leading, and controlling the activities of the organization. The Accounting Information System will be useful to collect, store, direct, process, recover and report financial data productively. Most of the past empirical studies were based on the impact of staff skills and knowledge of accounting information systems on fraud detection in small & medium enterprises, FMCG companies, etc. There is hardly any research found regarding the Sri Lankan banking sector. Therefore, the current study investigates the impact of staff skills and knowledge of accounting information systems on fraud detection in the Sri Lankan banking industry.

**Objective:** To determine the impact of staff skills and knowledge of accounting information systems on fraud detection in the Sri Lankan banking sector.

**Methodology:** The present study consists of a sample of 150 banking staff members around Colombo, Gampaha and Kalutara districts in Western province of Sri Lanka. This study used both primary and secondary sources to perform the function of data collection. As primary source, one specific questionnaire was distributed among banking staff members who work in the above-mentioned areas in Sri Lanka. Some relevant statistics published by Central Bank of Sri Lanka and other government authorities were applied as secondary data sources for the present study. As independent variables, accounting information systems, staff skills and staff knowledge were applied. Fraud detection was applied as the dependent variable for the current study. Multiple linear regression method was contained as the main regression tool for the present study.

**Results:** Multiple linear regression results emphasize significant and positive impact of staff skills and negative insignificant impacts of staff knowledge on fraud detection of Sri Lankan banking industry.

**Conclusion:** The present study will be useful for owners and managers of a business organization to easily detect fraudulent activities within their organizations. Since the current study provides information about financial performance, obligations and operations of an organization, this study will be helpful for internal and external decision makers to make investment and credit related decisions. Furthermore, the present study will be useful for future researchers who are interested in the subject of fraud detection of an organization by using the implications of accounting information systems.

**Keywords:** Fraud detection, Staff Skills, Accounting Information System

PP 6.5 MRC\_ACF\_007

## The Impact of Application of Accounting Software on SMEs in Sri Lanka

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**Introduction:** Accounting software can help Small and Medium Enterprises (SMEs) to automate their financial processes, such as invoicing, payments, and payroll. This can help to improve the accuracy and timeliness of financial information, and reduce the risk of errors. Therefore, the government has established the Small and Medium Enterprise Development Authority to provide SMEs with access to finance, training, and technical assistance for the adoption of accounting software. The government has also introduced various tax incentives and subsidies for SMEs to reduce the cost of doing business and increase their competitiveness.

**Objective:** To investigate the impact of cost associated with accounting software on the financial performance of SMEs in Sri Lanka.

**Methodology:** The random sampling technique was used to collect the data and regression analysis was used to examine the relationship between the independent variables and the dependent variables, considering the potential confounding effects of other variables. Further, ANOVA analysis to test the difference in means of the dependent variables between different groups of independent variables, was used.

**Results:** The findings of the study revealed that perceived ease of use, reliability, quality of service, and costs associated with accounting software were positively and significantly related to financial performance. The statistical significance of the model was established at a 99% confidence level.

**Conclusion:** Findings suggest that factors such as perceived ease of use, reliability, quality of service, and costs play a significant role in determining financial performance. These findings can be valuable for businesses in the Western province of Sri Lanka in enhancing their financial performance through the effective utilization of accounting software.

**Keywords:** Accounting Software, SMEs, Financial performance

PP 6.6 MRC\_ACF\_009

## The Effect of Economic Development on Environmental Pollution: Empirical Investigation of Developing Countries

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**Introduction:** Environmental pollution is a critical factor worldwide due to the enhanced frequency and severity of natural disasters and catastrophes and it crucially affects the survival of the universe. Examining the impact of economic development on environmental pollution is critical to strike a balance between economic growth and environmental protection. It informs policy decisions and protects public health by promoting sustainability and contributing to the well-being of current and future generations.

**Objective:** To investigate the impact of economic growth on environmental pollution in developing countries.

**Methodology:** The study incorporated a data series over the period of 1980-2022 in 50 countries. The panel data regression analysis was employed in this study to analyse the impact of economic growth and environmental pollution which are proxied using the Gross Domestic Product Growth rate and the Carbon Emissions (CO<sub>2</sub>) metric tons per capita with the control variable incorporated the energy consumption. In addition, the researchers assessed the Environmental Kuznets Curve (EKC) theory in the study to provide an in-depth understanding of the study field.

**Results:** The study revealed the significant positive impact of economic growth on environmental pollution in developing countries. The study supports the validity of the EKC theory in explaining the relationship between economic growth and environmental degradation. Hence, establishing environmentally friendly economic policies and practices is highly appreciated to lower environmental pollution and to shrink the adverse effects of the impact of economic growth on environmental pollution in developing countries.

**Conclusion:** These research findings highlight the importance of sustainable practices, environmental regulations, and collaborative efforts to mitigate the negative impacts of economic development on the environment. This study serves as a foundation for future research in this critical area to have a sustainable environment in the future while having a coherence between the lower emission rates and the higher economic growth rates.

**Keywords:** Carbon emission, Economic Development, Environmental Kuznets Curve

PP 6.7 MRC\_ACF\_010

## **An Empirical Investigation of the Effect of Bank Financial Health on the Financial Stability of Sri Lanka: Special Reference to Systemically Important Banks (SIB) in Sri Lanka**

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**Introduction:** The health of the Sri Lankan financial system depends largely on the soundness of the Licensed Commercial Banks (LCB). These six banks, which are generally referred to as the Systemically Important Banks (SIB), represented 75 percent of the LCB sector assets, 63 percent of the banking sector assets, and 36 percent of the entire financial system's assets. Thus, the stability of the financial system is mainly dependent upon the soundness of the SIB, the failure of which may affect the confidence of the entire financial system, leading to systemic risk.

**Objective:** To investigate the effect of the financial health of the Systemically Importance Bank (SIB) on the financial stability of Sri Lanka.

**Methodology:** This study has selected a sample of six commercial banks in Sri Lanka. This financial data was collected from the period of 2012 to 2022 from the annual reports of selected banks. The study employs the statistical tool pooled ordinary panel least squares regression analysis to test the study hypotheses.

**Results:** The findings of the regression analysis of the bank's financial health revealed that capital adequacy, assets quality, management quality, equity quality, and liquidity status have a positive significant impact on the financial stability of Sri Lanka.

**Conclusion:** The study focused on the empirical investigation of the effect of bank financial health on the financial stability of Sri Lanka". Therefore, future studies can cover those areas and extend the findings to the whole financial system. In this study, the method CAMEL was used to measure the financial health of banks, and that method helps to make decisions about the financial health and financial efficiency of the banks. AFSI Index has been chosen to measure Sri Lanka's financial stability, and through it, decisions can be made about Sri Lanka's macroeconomic factors as well as the world's economy.

**Keywords:** Bank financial health, Financial stability, CAMEL framework

## PP 6.8 MRC\_ACF\_011

## The Impact of Working Capital Management on Firms' Profitability: Evidence from Listed Manufacturing Companies in Sri Lanka

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**Introduction:** One of the most important and difficult facts of overall financial management is working capital management because it ensures a company's viability. Therefore, enhancing the company's profitability requires effective working capital management. Manufacturing companies are a significant contributor to Sri Lanka's economic growth. Therefore, it is worth getting an understanding of how properly managed working capital helps increase the profitability of the listed manufacturing firms on the CSE in Sri Lanka.

**Objective:** To examine how working capital management impacts the profitability of listed manufacturing firms (CSE) in Sri Lanka.

**Methodology:** This descriptive research study consists of a sample of 30 manufacturing companies listed on the Colombo Stock Exchange (CSE). The data was obtained from the published annual reports of the sampled manufacturing companies for the years 2017–2022. In this study, working capital management (WCM) has been identified as an independent variable, while profitability is the dependent variable. Inventory Turnover Days (INV), Accounts Receivable Days (ARD), Accounts Payable Days (APD), and Cash Conversion Cycle (CCC) have been identified as indicators of working capital management. Gross Operating Profit (GOP), Return on Assets (ROA), and Return on Equity (ROE) have been identified as indicators of profitability. In addition, firm size, sales growth, and debt ratio will be used as control variables in this study. Mainly, panel data regression analysis will be used to find out the impact of working capital management variables on profitability measures.

**Results:** Panel data regression outputs ensure that there is a significant impact of working capital management on the profitability of listed manufacturing firms in Sri Lanka. The findings of the study suggest that profitability is adversely correlated with the time periods for ARD, INV, and CCC. Additionally, it was discovered that profitability has a favorable relationship with APD; the findings also imply that a rise in leverage causes a fall in profitability. As a result, the findings of the study show that manufacturing organizations can improve profitability by managing working capital effectively.

**Conclusion:** The manufacturing firms should increase INV, CCC and minimize the ARD, APD to increase the firms' GOP, should increase ARD, APD and minimize the CCC, INV to increase the Firms' ROE, and increase ARD, CCC and minimize the APD and INV to increase the firms' ROA.

**Keywords:** Working Capital Management, Gross Operating Profit, Return on Assets, Return on Equity

PP 6.9 MRC\_ACF\_012

## An Empirical Investigation on the Impact of Social Media Adoption on the Performance of SMEs in Sri Lanka

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**Introduction:** Small and Medium Enterprises (SMEs) are widely recognized as being essential to the development and advancement of every economy. Even while more and more SMEs are gradually realizing the value of social media, they continue to question whether it is beneficial to use them and whether there is any impact of social media adoption and the performance of SMEs.

**Objective:** To investigate the impact of the impact of social media adoption and the performance of SMEs in Sri Lanka.

**Methodology:** The collected data through a self-administered questionnaire were analyzed using the multiple linear regression analysis after ensuring the reliability, validity, and correlation among the variables.

**Results:** The findings of the multiple linear regression analysis showed that there is a significant impact of social media adoption on SME performance and SMEs showed a higher performance with the considerable exposure provided by the social media platforms in promoting their products.

**Conclusion:** The study focused on the empirical investigation of the impact social media adoption and on the performance of SMEs in Sri Lanka, and it ensured that there is a positively significant impact of social media adoption in the performance of SMEs in Sri Lanka. As the SMEs significance in every economy is crucial, enhancing the performance of those using technological novelties including social media adoption is substantial. Thus, contexts with similar socio-economic conditions are encouraged to use social media to improve the performance of SMEs with the empirical support provided through this study.

**Keywords:** Social media adoption, Performance, Small and Medium Enterprises

PP 6.10 MRC\_ACF\_013

## The Impact of Interest Rates on the Capital Structure of Listed Banks in Sri Lanka

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**Introduction:** An organization's development gains momentum when its financial structure is optimal. It explains how the company selects appropriate sources of funding and makes decisions about its long-term investments. As a result, one of the key areas of concern for a corporation is its capital structure. A crucial decision for the company is the financing structure. Many factors go into the decision-making process when choosing the ideal capital structure combination. As the cost of debt capital, interest rate serves as one of the major variables in this regard.

**Objective:** This study aims to analyse the impact of the interest rate on the capital structure of listed banks in Sri Lanka.

**Methodology:** The Average Weighted Prime Lending Rate has been used as the independent variable, interest rate, while debt to equity ratio was used to measure capital structure, which is the dependent variable. Another three factors such as size and liquidity were considered as the control variables. Twelve banks listed in the Colombo Stock Exchange (CSE) were selected as the sample for this study. Data were gathered from the annual reports of the companies from 2018 to 2022. The data were analysed using the correlation and Ordinary Least Square (OLS) regression method with the help of SPSS software.

**Results:** The findings of this study reveal that interest rate has an insignificantly negative relationship with the debt capital of listed banks in Sri Lanka while the control variables such as Firm size have a significantly positive relationship with debt capital and liquidity has a significantly negative relationship with debt capital.

**Conclusion:** Theoretical and empirical research carried out overseas predicts that interest rates will have an impact on the companies' debt capital while also raising their share capital. Even though it provided a tax benefit for the corporation, businesses often cut their borrowings when interest rates rise. We cannot conclude that interest rates will significantly affect the mix of corporate capital structure of listed banks in the Sri Lankan context given the results of this study, which show that the Average Weighted Prime Lending Rate has a negligible relationship with the Debt-to-Equity ratio of listed banks.

**Keywords:** Interest rate, Average weighted prime lending rate, Firm size, Liquidity

PP 6.11 MRC\_ACF\_016

## Impact of Macroeconomic Variables on Carbon Emission in developing Countries

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**Introduction:** The rapid development of the industrial sectors serves as the foundation of the economy, stimulating investment and technological advancement to provide new job opportunities, reduce unemployment, and contribute to sustainable economic growth. However, this development creates a negative impact on the environment. The global concern for the climate changes because of the perpetual environmental damaging impacts of increasing greenhouse gas emissions. The impacts of global warming have shown in the form of rising sea levels, increasing ocean temperatures, melting glaciers, unpredictable rainfall amounts, decimated wildlife, reduced output of agriculture, and deteriorating productivity of the labour force worldwide.

**Objective:** This study examined an econometric analysis of the macroeconomic determinants of carbon dioxide (CO<sub>2</sub>) emission in developing countries.

**Methodology:** The study was adapted to the quantitative research approach and the secondary data gathered from the World Bank Report for fifteen consecutive years from 2006 to 2020. The dependent variable of the study is Carbon emission, and the independent variables are Foreign Direct Investment (FDI), Renewable Energy Consumption (REC), Manufacturing Sector Performance (MSP), Human Capital Development (HCD), Infrastructural Development (ID), and Population Growth (PG). Using the Stratified Sampling method, the sample was determined, and economic data were collected from selected 10 developing regions. Data were analysed using panel data regression analysis.

**Results:** The study revealed that REC, HCD, ID, and PG significantly impact carbon emission while FDI and MSP show an insignificant impact on carbon emission.

**Conclusion:** Considering the findings, the researcher recommends that green macroeconomic activities are viable solutions for achieving economic and environmental sustainability.

**Keywords:** Macro-economic variables, Economic growth, Carbon emission

PP 6.12 MRC\_ACF\_017

## Impact of Working Capital Management on Profitability with Special Reference to Health and Equipment Sector in Sri Lanka

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**Introduction:** Working Capital Management is the process of managing current assets and current liabilities of an organization. It is a mechanism by which a company manages the relationship between assets and liabilities in the short term. The primary goal of Working Capital Management is to enable a company to maintain adequate cash flow to meet its short-term debts. Consequently, it is a critical concept for any business organization aiming to run its operations efficiently. The concept of Working Capital Management holds significant value for every business organization worldwide.

**Objective:** The purpose of this study is to explore the relationship between working capital management on profitability of the health and equipment sector in Sri Lanka.

**Methodology:** A quantitative research approach was employed for the study. The secondary data was collected from six (06) health and equipment sector companies that are registered in Colombo Stock Exchange (CSE). In order to collect the data, annual reports of the selected companies were used for nine consecutive years from 2011 to 2020. The independent variables of the study are the conversion cycle, accounts payable period, accounts receivable period, operating cycle, and cash conversion cycle and the dependent variables are Return On Assets (ROA) and Return On Equity (ROE).

**Results:** The study revealed that the inventory conversion cycle, accounts receivables period, accounts payables period, and cash conversion cycle significantly impact on ROA and ROE of the health and equipment sector in Sri Lanka while the operating cycle does not significantly impact ROA and ROE of health and equipment sector in Sri Lanka.

**Conclusion:** This will support better working capital management in these companies without wasting money and it will lead to improved profitability through ROA and ROE.

**Keywords:** Working capital management, Cash conversion cycle, Operating cycle, Health and equipment sector, Profitability

**PP 6.13 MRC\_MBM\_004****Social Media Customer Adoption on Online Grocery Shopping, using TAM Model with Special Reference for Colombo District**

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**Introduction:** The emergence of social media has brought about a fundamental transformation in the way individuals engage with companies and reach conclusions regarding their purchases. In the domain of virtual grocery shopping, the effect of social media on the acceptance of consumers is particularly conspicuous. With the continuous expansion of the online grocery market, it becomes essential to fully comprehend the intricate relationship between social media and the adoption of online grocery shopping by customers.

**Objective:** The objective of the study is to assess the impact of social media customer adoption on online grocery shopping, using TAM model with special reference to the Colombo district.

**Methodology:** The research utilizes quantitative methodology, employing survey data obtained from a subset of individuals who engage in online grocery shopping. The collected data were analyzed using reliability analysis, regression analysis, and hypothesis testing.

**Results:** The findings indicate that perceived usefulness, perceived ease of use, perceived enjoyment, and perceived social norms have a significant positive impact on social media customer adoption. However, perceived relative advantages do not significantly influence adoption, while perceived online grocery risk has a significant negative impact.

**Conclusion:** In conclusion, despite the substantial research conducted globally, a significant knowledge gap persists in comprehending the dynamics of social media's impact on online grocery shopping adoption, especially within the context of specific regions or demographics. This investigation provides valuable insights, shedding light on the intricate relationship between social media and consumer adoption in the online grocery sector. These findings are essential for businesses aiming to harness the potential of social media to navigate the evolving landscape of digital grocery retail effectively.

**Keywords:** Online grocery shopping, Social Media, Customer Adoption

PP 6.14 MRC\_MBM\_005

## The Impact of Tourist Trust on Destination Image: With Special Reference to Local Adventure Tourist Visiting Ella and Kithulgala

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**Introduction:** Trust in tourists plays a crucial role in shaping the image of a particular destination. Trust encompasses various aspects such as safety, dependability, and genuineness, all of which have an impact on how travelers perceive the destination. It is of utmost importance for destinations that aspire to attract visitors and establish a resilient and distinguished reputation in the fiercely competitive tourism industry to comprehend the profound association between tourist trust and the image of the destination.

**Objective:** The objective of the study is to assess the impact of tourist trust on destination image with special reference to local adventure tourists visiting Ella and Kithulgala.

**Methodology:** The descriptive study was conducted by conveniently selecting 384 individuals who have visited Ella and Kithulgala, Sri Lanka. The data was collected using a self-administered questionnaire. Multiple linear regression analysis was utilized as the primary inferential analysis method to test the hypothesis.

**Results:** The present study's results are supported by prior academic literature. The findings provide empirical evidence to support the claims made in the prior academic literature that trust in experience, trust in security and safety, trust in friendship, and trust in destination benefit are influential factors in shaping destination image.

**Conclusion:** Despite the extensive amount of research carried out in different geographical areas, there is a discernible gap in the theoretical understanding surrounding the impact of tourist trust on the perception of a destination, particularly within the distinctive framework of Sri Lanka's tourism industry. It emphasizes the importance of cultivating trust to enhance and maintain a favourable perception of a destination.

**Keywords:** Destination image, Tourist trust, Trust in experience, Trust in security and safety, Trust in friendship

## PP 6.15 MRC\_MBM\_007

## Factors Influencing Handmade Craft Entrepreneurs' Intention to use Pinterest Marketing in Promoting Products to the International Market

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**Introduction:** Numerous nations globally, as they engage with the international crafts market, utilize the social media platform Pinterest to exhibit their artisanal creations and connect with potential online buyers. Entrepreneurs in Sri Lanka possess abundant prospects to tap into the global market by showcasing the distinct cultural and traditional essence of Sri Lankan handcrafted goods. Nonetheless, Sri Lankan craft entrepreneurs encounter challenges in penetrating expansive markets, and promoting their offerings through a suitable channel is harder compared to their competitors who leverage Pinterest marketing. Surprisingly, this advantageous platform remains untapped among Sri Lankan handmade craft entrepreneurs.

**Objective:** This study aimed to investigate the factors influencing handmade craft entrepreneurs' intention to adopt Pinterest marketing in promoting their products to the international market.

**Methodology:** A quantitative research approach was employed using a structured questionnaire. A sample of 361 craft entrepreneurs from the Southern province was selected through a cluster sampling technique. Data were analyzed using the regression analysis. The study examined the impact of perceived risk, perceived trust, perceived cost, self-efficacy, performance expectation, and effort expectancy on handmade craft entrepreneurs' intention to use Pinterest marketing.

**Results:** The study found that self-efficacy ( $r = 0.800, p < 0.000$ ), perceived cost ( $r = 0.087, p < 0.008$ ), performance expectancy ( $r = 0.076, p < 0.004$ ), and effort expectancy ( $r = 0.246, p < 0.001$ ) have significant positive impact on handcraft entrepreneur's intention to use Pinterest marketing while perceived risk ( $r = -0.068, p < 0.033$ ) has a significant negative impact. However, perceived trust ( $r = -0.024, p < 0.746$ ), and social influence ( $r = 0.103, p < 0.561$ ) did not have a significant impact on handcraft entrepreneur's intention to use Pinterest marketing.

**Conclusion:** The findings emphasize that the perceived risk, perceived cost, self-efficacy, performance expectation, and effort expectation impact on handmade craft entrepreneurs' intention to use Pinterest marketing as hypothesized. However, perceived trust and social influence did not have any impact on influencing handmade craft entrepreneurs' intention to use Pinterest marketing. The result of this study provides small businesses and entrepreneurs obtain new technological learning experiences and appropriate strategies to obtain competitive advantage.

**Keywords:** Pinterest marketing, Entrepreneur's' intention

## PP 6.16 MRC\_MBM\_008

## The Factors Influencing Internet Banking Adoption with Special Reference to Internet Banking Users in Kurunegala District

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**Introduction:** Banking is a crucial sector in the financial industry that involves the acceptance of deposits, lending of funds, and various financial services. The COVID-19 pandemic has accelerated the adoption of digital solutions, including internet banking. Banks in Sri Lanka have actively promoted Internet banking by investing in digital platforms and enhancing their online service offerings. However, apart from the urban areas, we could see that the internet banking adaptation has been comparatively low in other parts of the island. Therefore, this study attempts to identify the factors affecting internet banking adaptation with reference to Kurunegala district.

**Objective:** This study aims to investigate the factors influencing internet banking adoption (with special reference to Internet banking users in the Kurunegala district).

**Methodology:** A quantitative research approach was employed using a structured questionnaire. The convenience sampling technique was used to obtain the sample, and 200 banking customers in Kurunegala district were chosen as the research sample. The study examined internet infrastructure, digital literacy, trustworthiness, and awareness as independent variables and the adoption of Internet banking as the dependent variable. Data were analysed using descriptive, correlation, and regression analysis.

**Results:** The study indicates that internet infrastructure, digital literacy, trustworthiness, and awareness utilize a substantial influence on consumers' adoption of Internet banking in the Kurunegala district. This impact is supported by standardized beta ( $\beta$ ) values of internet infrastructure (0.569), digital literacy (0.106), trustworthiness (0.254), awareness (0.256), and P values of 0.000, 0.0003, with the latter being below the significance level of 0.005. Therefore, this study's findings validate the significance of the relationship.

**Conclusion:** Based on these findings, the study emphasizes that there is a positive and significant impact of the independent variables' Internet infrastructure, digital literacy, trustworthiness, and awareness on the dependent variable adoption of Internet banking.

**Keywords:** Awareness, Digital literacy, Internet banking, Internet infrastructure, Internet banking adoption

## PP 6.17 MRC\_MBM\_010

## The Impact of Electronic Word-of-Mouth Quality on Consumer Purchasing Intention: with Special Reference to Fashionable Clothing

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**Introduction:** The rapid growth of the internet, along with its enhanced communication capabilities, has significantly expanded the scale and scope of word-of-mouth (WOM) communication. This has laid the groundwork for the emergence of electronic word-of-mouth (eWOM) communication. Businesses' increased utilization of social networking sites offers customers numerous opportunities to seek more reliable product information and share their own product experiences. As a result, this trend consistently influences higher purchase intentions toward company products and services.

**Objective:** The present study aims to explore the impact of electronic word-of-mouth quality on consumer purchasing intention: with special reference to fashionable clothing.

**Methodology:** A quantitative research approach was employed using a structured questionnaire. The convenience sampling technique was used to obtain the sample, and 300 government university undergraduates were chosen as the research sample. The study examined electronic word-of-mouth quality as an independent variable and consumer purchase intention as the dependent variable. Data were analysed using descriptive, correlation, and regression analysis.

**Results:** The study has revealed that the quality of electronic word-of-mouth has a significant and positive impact on customer purchasing intentions, as evidenced by the p-value (0.000) being less than 0.005, and the beta coefficients measuring 0.364.

**Conclusion:** Based on these findings, the study emphasizes that there is a positive and significant impact of the eWOM quality on consumer purchase intention.

**Keywords:** E-word mouth credibility, Consumer purchasing intention, Fashionable clothing

PP 6.18 MRC\_MBM\_011

## Consumers' Impulse Buying Behaviour for Fast Fashion: with Reference to Physical Fashion Stores in Colombo District

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**Introduction:** “Fast fashion” characterized by its widespread availability and inexpensive trendy garments, has reshaped the way people purchase and dispose of clothing. With the changing dynamics of the fashion world, this business model of producing and distributing garments quickly responds to the latest trends and has become a prominent force for fashion retailers. In Sri Lanka, the pace at which the fashion industry is evolving has been accelerated significantly. Fashion buyers are more towards spontaneous purchases with hedonic motives than planned, which is still a riddle for marketers. Thus, notifying the paucity of literature examining the impulsive fast fashion behaviour of Sri Lankans, this study aims to fill that research gap.

**Objective:** The objective of this study is to examine the factors influencing consumer impulse buying behaviour for fast fashion in physical stores.

**Methodology:** A quantitative survey was conducted using a self-administered questionnaire. Total of 310 valid responses were gathered from individuals above 18 years old who are onsite fashion store shoppers in Colombo District, employing a purposive sampling technique. The analysis utilized a regression model.

**Results:** As per the findings, psychological, personal, and social factors demarcated a significant positive influence on impulse consumer buying behaviour in the context of fast fashion. Further, social factors dominate consumer impulse buying behaviour, while personal factors have a lesser impact.

**Conclusion:** This study demonstrated how psychological, personal, and social factors influence consumer impulse buying behaviour in fast fashion in Sri Lanka. Fashion retailers can gain a competitive advantage by designing long-term relationship strategies incorporating customers' societal influences and their inner psychological feelings.

**Keywords:** Fast fashion, Impulse buying behaviour, Personal factors, Psychological factors, Social factors

## PP 6.19 MRC\_MBM\_012

## The Effect of Retail Service Quality Dimensions on Customer Satisfaction: An Application on Supermarket Customers in Colombo District, Sri Lanka

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**Introduction:** The quality of retail services plays a crucial role in determining customer satisfaction in the dynamic world of retail, where competition is fierce and customer expectations are ever evolving. However, underperforming retail service quality practices and the lack of understanding regarding the impact of service quality on customer satisfaction towards retailing have posed a future threat of bringing losses to the retail sector.

**Objective:** This study examines the impact of retail service quality dimensions on customer satisfaction by applying the Retail Service Quality Scale (RSQS) model, particularly to supermarkets in Colombo district.

**Methodology:** The methodology in this study takes a comprehensive and systematic approach to effectively address research objectives guided by the positivistic research paradigm with a deductive approach. Based on an online survey, 307 effective responses were gathered from the customers from three leading supermarkets operating in Colombo, Sri Lanka. The authors used the purposive sampling technique for primary data collection. Reliability and validity were ensured in this study. Multiple regression analysis was used to test the hypotheses.

**Results:** The findings revealed that physical aspects, personal interactions, reliability, policy, and problem-solving significantly positively influence consumer satisfaction in supermarkets in Colombo district. Furthermore, the authors identified policy as the key predictor of customer satisfaction, while physical aspects have a negligible impact on customer satisfaction toward supermarkets in Colombo district.

**Conclusion:** There is a lack of literature related to retail service quality on customer behavioural outcomes in developing countries. Therefore, this study contributes to bridging that literature gap. In addition to the academic contribution, this study provides valuable insights to supermarket owners and managers on enhancing customer satisfaction regarding service quality practices. Since the policy dimension is crucial, supermarkets should consider adopting retailing policies on convenient operating hours, stocking quality goods, different payment methods, returns and exchanges to satisfy their customers.

**Keywords:** Customer satisfaction, Retail Service Quality Dimensions, Supermarket

PP 6.20 MRC\_MBM\_013

## Drivers of Consumers' Intention to Adopt Credit Cards: Evidence from Colombo District, Sri Lanka

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**Introduction:** Credit card adoption has become increasingly prevalent in modern societies, offering convenient and flexible payment options. However, the complex nature of credit card adoption necessitates the understanding of the subtle decision-making process behind credit card adoption, which is particularly pertinent in the Sri Lankan context.

**Objective:** The prime objective of this study is to investigate the key drivers influencing consumers' intention to adopt credit cards in Colombo district, Sri Lanka. This study integrates the Technology Acceptance Model (TAM) and the Theory of Reasoned Action (TRA) as the underpinning theories of the study.

**Methodology:** An online survey was conducted using a self-administered questionnaire. Through purposive sampling, 482 bank customers were selected through purposive sampling, who are potential customers encouraged by the bank to register and use credit cards. Three screening questions were first asked to identify the most appropriate respondents who intend to adopt credit cards in the Colombo district and are aged 18 and above. Validity and reliability were checked, and values were within the threshold level. A multiple regression analysis was employed to test the six hypotheses.

**Results:** Perceived ease of use, perceived usefulness, subjective norms, perceived self-efficacy, and anxiety significantly impact consumers' intention to adopt credit cards in the Colombo district. Nevertheless, perceived financial cost does not significantly influence consumers' intention to adopt credit cards in Colombo district.

**Conclusion:** This study provides both academic and practical implications. The conceptual model tested in this study is an extension of the original TAM and TRA for studying technology adoption, particularly in the credit card industry. This study highlights the pivotal role that elements such as perceived ease of use, perceived usefulness, subjective norms, perceived self-efficacy, and anxiety play in shaping consumers' intention to adopt credit cards; hence, findings can benefit banks enacting policies to attract more consumers.

**Keywords:** Credit cards, Colombo, Consumers' intention to adopt

PP 6.21 MRC\_MBM\_014

## The Role of Trust as a Mediator between Relative Advantage, eWOM, and Consumer Attitudes towards Online Shopping for Clothing Products in Colombo District, Sri Lanka

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**Introduction:** It is apparent that the retail landscape has profoundly changed due to the rise of online shopping, especially in the clothing sector, where online shopping offers an intriguing research opportunity to understand the underlying dynamics that influence consumer attitudes toward online shopping. Trust can be identified as a pivotal factor that shapes consumer attitudes in this evolving landscape.

**Objective:** The current study investigates the impact of relative advantage, eWOM, and trust on consumer attitudes toward online shopping and the mediation effect of trust.

**Methodology:** The authors conducted a structured and self-administered online survey targeting online clothing shoppers in Colombo district. In total, the online survey generated 356 responses. Sample adequacy, reliability, content, and convergent validity were ensured in this study. The authors tested the hypothesized direct relationships of the model using multiple linear regression, and the Sobel test was applied to test the mediation effect of trust.

**Results:** The empirical findings show that relative advantage and trust significantly positively influence attitudes toward online shopping for clothing. In contrast, eWOM does not significantly influence attitudes towards online clothing shopping. Furthermore, relative advantage and eWOM's impacts on trust were substantial. The Sobel test results confirmed a partial mediation of trust between relative advantage and attitudes towards online shopping for clothing products. However, it was found that there is no mediation effect of trust between eWOM and attitudes towards online shopping.

**Conclusion:** This study is one of the early attempts to highlight the role of trust as a mediator in enhancing consumer attitudes towards online clothing shopping while addressing a knowledge gap in the Sri Lankan context. In a practical sense, online clothing retailers can use the outcomes of the current study to redesign their online shopping platforms and to draft suitable digital marketing strategies.

**Keywords:** Online shopping, Clothing products, eWOM, Trust

## PP 6.22 MRC\_HRE\_001

## The Impact of Transformational and Transactional Leadership Styles on Employees' Job Performance: With Special Reference to the Bank of Ceylon PLC in Colombo District, Sri Lanka

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**Introduction:** The leadership style of managers is gaining importance to drive employees' efficiency and productivity levels in the modern competitive business world. Managers are expected to lead their subordinates towards greater performance that meets or exceeds organizational goals. This study examines the impact of transformational and transactional leadership styles to improve employee performance in the banking industry with reference to Bank of Ceylon.

**Objective:** The main objective of this research is to investigate the effects of leadership styles on employee performance at Bank of Ceylon PLC.

**Methodology:** A sample size of 108 was drawn from a total population size of 150 employees of Bank of Ceylon PLC, Sri Lanka. Data was gathered using a questionnaire with the use of a survey technique. Data were analysed using SPSS software using the technique of regression analysis.

**Results:** The results showed a significant positive impact of transactional leadership style on employees' performance (Beta Value 0.410, P value 0.039) and was found that there is a significance negative impact of Transformational leadership style on employees' performance (Beta Value 0.108, P value 0.041).

**Conclusion:** The study findings agree with the literature, it can be concluded that managers who intended to derive best out of their employees should embody characteristics related the transformational leadership style while refraining from exhibiting characteristics related to transactional leadership styles. It is recommended to public banks such as Bank of Ceylon to invest more in leadership development programmes specifically designed for the banking sector. These programmes will enable leaders to acquire relevant leadership styles, skills, and competencies that promote best practices.

**Keywords:** Banking industry, Executive job satisfaction, Work-life balance

## PP 6.23 MRC\_HRE\_002

## The Relationship between Team Characteristics and Team Effectiveness among Employees with Special References to the Sana Commerce (Pvt) Ltd

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**Introduction:** There are modern cultures which value individualism more than the collectivism in today's highly competitive world. However, within the corporative sector, there is a strong emphasis on teamwork, as it is believed to enhance productivity and drive success. According to existing literature, the characteristics of a team can significantly influence its effectiveness. Therefore, this study examines the relationship between team characteristics and team effectiveness among employees with reference to Sana Commerce (Pvt) Ltd Company.

**Objective:** The main objective of this research is to identify the relationship between team characteristics and team effectiveness.

**Methodology:** A sample size of 132 was drawn from a total population size of 200 employees of Sana Commerce Pvt Ltd. Data was gathered using a questionnaire with the use of a survey technique. Data were analysed using SPSS software using the technique of regression analysis.

**Results:** It was found that job design has a positive relationship with team effectiveness (coefficient value - 0.483) and interdependence shows a moderate positive relationship with team effectiveness (coefficient value of - 0.497).

**Conclusion:** The study findings agree with the literature, it can be concluded that there is a positive relationship between team characteristics, and team effectiveness and job design with team effectiveness with the selected company. It is recommended to study more on different characteristics associated with teams to identify the ways of promoting team effectiveness.

**Keywords:** Team spirit, Team performance, Team synergy

PP 6.24 MRC\_HRE\_004

## Impact of Salary and Incentives on Employee Performance

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**Introduction:** Salary is a form of periodic payment from an employer to an employee. An incentive is a plan or programmed to motivate an individual for good perform. Several studies have demonstrated salary and incentives have a positive impact on employee performance. First and foremost, the primary goal in conducting this study is to investigate the impact of salary and incentives on employee performance in the insurance industry, Allianz Insurance Lanka Ltd. The salary, financial incentives, and non-financial incentives in the workplace will have the potential to influence employee performance.

**Objective:** The objective of this study is to examine the impact of salary and incentives on employee performance in the insurance industry, referring, Allianz Insurance Lanka Ltd.

**Methodology:** A descriptive cross-sectional study was taken as the study design in this study and a sample of branches from Allianz Insurance Lanka Ltd in Colombo district of Sri Lanka was taken for this study. The data was obtained from published annual reports, manual and labour agreements, journals, and websites. As dependent variables, employee performance and as independent variables, salary variable, financial variable including bonus, commission, attendance incentive, and productivity incentives were taken. The recognition, career development (promotion), training programmes, and better work environment were used as non-financial variables. The panel data regression method was incorporated as the main regressing tool in the study.

**Results:** Panel data regression outputs ensure that all the independent variables indicate a positively significant relationship with employee performance. Therefore, salary and incentives can be used as a reward tool to improve the employee performance of a company.

**Conclusion:** The research findings of this study have a practical relevance. First, it provides a deeper understanding of the appropriate salary and incentives that are required to be adopted by Allianz Insurance Lanka Ltd and consequently by insurance companies to influence employee performance. Second, the findings of the study show how to implement appropriate salary and incentives strategies to improve employee performance within the organization. Third, the findings of the study help the management of Allianz Insurance Lanka Ltd to reflect more on the purpose to boost employee performance. Finally, the findings of this research will contribute the body of knowledge in the field of salary and incentives in the private sector, particularly focusing on Allianz Insurance Lanka Ltd by assessing the suitability and adequacy of salary and incentives packages in enhancing employee performance.

**Keywords:** Salary, Financial incentives, Non-financial incentives, Employee performance

PP 6.25 MRC\_HRE\_005

## Factors Affecting the Employee Turnover Intention with Reference to ABC Company in Sri Lanka

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**Introduction:** Turnover is a significant problem that can be seen in different fields, and it is a problem that can adversely affect any company. The increase in voluntary turnover makes it difficult for the business to keep its employees and manage its operations. Retail business makes a considerable contribution to the nation's economic value chain in numerous ways. Therefore, ABC company will be used to determine the factors affecting the turnover intention of the retail industry of Sri Lanka.

**Objective:** The object of this study is to examine the factors affecting the employee turnover intention of ABC company.

**Methodology:** This descriptive research study consists of a sample of 376 executive and non-executive employees of the ABC company. Primary data collection was done by the questionnaire and the secondary data was gathered by the journal articles, research papers, books etc. As the dependent variable, employee turnover intention and as independent variables, salary benefit, organizational culture, job satisfaction, and supervisor support were used. Correlation analysis and regression analysis were used for the data analysis in this study.

**Results:** According to the regression analysis, the results revealed that organizational culture and supervisor support had an insignificant relationship with employee turnover intention, while the salary benefit, and job satisfaction factors had a significant negative relationship with employee turnover intention.

**Conclusion:** Research findings revealed that salary benefit, and job satisfaction factors affect the employee turnover intention of ABC company in Sri Lanka. Therefore, the management should be aware of how to keep people interested in their jobs by putting various strategies into practice, and developing, and changing company policies, which in turn improve employee job satisfaction levels and allowing a fair and attractive compensation package to reduce the employee turnover intention. Not only that, but the management can also make the employees aware that they are valued to the company.

**Keywords:** Employee turnover intention, Salary benefit, Organizational culture, Job satisfaction, Supervisor sup

PP 6.26 MRC\_HRE\_006

## Impact of Training on Employee Performance in a Selected Apparel Organization in Sri Lanka

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**Introduction:** Employees are considered an asset of every organization because the success or failure of any organization is mainly supported by its employee performance. Training is another important factors in the business world because training increase the efficiency and effectiveness of both of employees and organization. Employee performance depends upon training content, induction programme and technical training of the impact of training on employee performance in the apparel organization in the current scenario.

**Objective:** The objective is to examine the impact of training on performance of operational level employees in a selected apparel organization in Sri Lanka.

**Methodology:** The descriptive analysis was used in this research. This analysis was qualitative where data was collected through a structured questionnaire. Simple random sampling technique was applied to select the sample and sample was consisted of 152 operational level employees. The data was analysed using correlation, regression and reliability test analytical tools.

**Results:** The results of the study show a positive relationship between the independent and dependent variables. All the independent variables show a positively significant relationship with employee performance which indicates training content, induction program and technical training relationship.

**Conclusion:** The purpose of the study is to find out the effect of training on the performance of operational level employees in a selected apparel organization. Findings revealed that training is positively related to employee performance of operational level employees. Based on the findings, the study recommends that the organizations should facilitate effective training outcomes, identify factors influence training effective, HR policy of training and program should be given proper attention.

**Keywords:** Employee performance, Training, Effective, Efficiency

PP 6.27 MRC\_HRE\_007

## Impact of Employee Work-Life Balance on Employee Commitment among Middle-Level Employees of Apparel Sector in Sri Lanka

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**Introduction:** The concept of work-life balance (WLB) has gained enormous attention in political institutions, companies, trade unions, families, and individuals. The quality movement in apparel industry has recognized better work life balance of employees as an important rubric for the performance of the industry. Apparel industry is facing a problem of attracting and retaining, competent human resources due to a competitive business environment.

**Objective:** The main objective is to assess the impact of employee work-life balance on employee commitment referring to the middle-level employees in the selected apparel companies of Sri Lanka.

**Methodology:** The sample of 120 middle-level employees who were employed in apparel companies was taken by snowball sampling method. Data was gathered using a questionnaire with the use of a survey technique. Data were analysed using SPSS software using techniques of correlation and regression.

**Results:** The results show a significant positive impact of employee work-life balance on employee commitment ( $\beta= 0.581$ ;  $p=.0001$ ) referring to the middle-level employees in the selected apparel companies of Sri Lanka.

**Conclusion:** Findings can be utilized by managers and policymakers to design and implement appropriate initiatives to improve WLB of employees. Successful implementation of WLB is the key to attract and retain qualified and motivated employees and can possibly lead to enhanced quality of services in the apparel industry.

**Keywords:** Apparel industry, Employee commitment, Work-life balance

PP 6.28 MRC\_HRE\_008

## The Impact of Work–Life Balance on Executive’s Job Satisfaction: Special reference to a Private Bank in Sri Lanka

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**Introduction:** Work-life balance (WLB) has emerged as one of the major problems that many employees worldwide are currently dealing with. WLB has a significant impact on how employees perceive their workplace and their personal lives. When managing highly competitive knowledge workers, the boundary between work and life could be crucial. The banking industry had been selected for the study since employees are more responsible and work in stressful environments compared to other service organizations.

**Objective:** The purpose of this study was to determine the significant impact that work-life balance has on job satisfaction in executive-level workers of a private bank of Sri Lanka.

**Methodology:** The study was conducted among 269 executive-level employees in the selected private banks of Sri Lanka. Data was gathered using a questionnaire with the use of a survey technique. Data were analysed using SPSS software using the technique of regression analysis.

**Results:** The results show a significant positive impact of employee work-life balance on executives’ job satisfaction related to the dimensions of workplace support, workload, and job awareness and commitment ( $\beta = 0.196, 0.197, 0.242$ ;  $p = .0001$ ) referring to the selected private bank of Sri Lanka.

**Conclusion:** A positive work-life balance enables people to prioritize their needs and relationships, which increase the job satisfaction and a degree of dedication to their work. Further research studies should consider alternative methods, such as a longitudinal study among non-executives instead of a cross-sectional survey design to measure these variables.

**Keywords:** Banking industry, Executive job satisfaction, Work-life balance

**PP 6.29 MRC\_HRE\_010****The Critical Factors Affecting in the Labour Turnover among in Apparel Industry in Sri Lanka Reference to Gampaha District**

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**Introduction:** Sri Lanka's apparel sector is the foundation of the country's economy, making a major contribution to export revenue and job opportunities. The crucial problem of workforce turnover, is a widespread fact that undermines its stability and growth. For the apparel industry to maintain production quality, fulfill worldwide demand, and ensure the wellbeing of the workers themselves, it is essential to keep a trained and motivated workforce. As a result, figuring out the fundamental causes of this phenomena is crucial for developing workable solutions to lessen its negative impacts.

**Objective:** The main objective of this study is to investigate the impact of factors affecting on the labor turnover in the garment industry in Sri Lanka.

**Methodology:** The data was collected through survey questionnaires where the sample size was 357 which was selected from a segment of more than 5000 apparel sector employee population in Gampaha District. The study utilized the deductive approach with the application of multiple models introduced in previous literature. Accordingly, the study investigates the impact of social environmental factors, organizational factors, and employee dissatisfaction factors on labor turnover. To ensure content validity, the Kaiser- Meyer-Olkin sampling adequacy metric and Bartlett's test were adopted, and Cronbach's alpha was used to ensure measurement consistency.

**Results:** Analysis, Kaiser Meyer-Olkin being greater than 0.5 indicates the value is significant ( $p < 0.05$ ), the exploratory factor analysis is acceptable and confirms the reliable results. R-square value being 0.428 indicates that all the independent variables influence 42.8 percent (42.8%) of the variance of the dependent variable. According to the ANOVA table, the significant value is less than 0.05 and it is evident the statistically significant difference among the group means. The regression statistics revealed that organizational factors and social environmental factors are significantly associated with employee turnover while employee dissatisfaction factors are not.

**Conclusion:** The results highlight the necessity of the government sector and other stakeholders to involve in fostering a more stable and productive agricultural workforce, thereby supporting the economic sustainability of the Puttalam district's plantation sector.

**Keywords:** Organizational Factors, Social Environment Factors, Employee dissatisfaction Factors

## PP 6.30 MRC\_HRE\_011

## The Impact of Job-Related Factors on Employee Performance: With Special Reference to DFCC Bank, Sri Lanka

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**Introduction:** Every organization considers employees to be assets to the organization. Employees play an important and valuable role in the organization's success. Employee performance is impacted by a variety of workplace factors. Employee performance evaluates how successfully a person does their job. The effectiveness of an employee's precise actions that help the organization achieve its goals is reflected in their performance. Various factors impact employee performance in various ways and employee performance impact on organization performance.

**Objective:** The main objective of this research is to determine the impact of job-related factors on employee performance. It is aimed to determine the impact of training, and employee engagement on employee performance as the specific objectives of the research.

**Methodology:** The target population was 300 employees of the selected 20 DFCC branches in Colombo district and 180 employees were selected as the sample of the study. Data was gathered using a questionnaire with the use of a survey technique. Data were analysed using SPSS software using the technique of regression analysis.

**Results:** The results show a significance positive impact on employee training on employee performance (Beta Coefficient value – 0.440, p value- 0.000) it is proved that there are positive impact on employee engagement on employee performance (Beta Coefficient value – 0.480, p value- 0.000).

**Conclusion:** The findings of the study agree with the literature and, it can be concluded that there are positive job-related factors on employee performance. Consequently conclusion can be made as the training and engagement impact on employee performance in DFCC Bank.

**Keywords:** Employee engagement, Employee training, Employee performance

**PP 6.31 MRC\_HRE\_014****Factors Affecting the Failure of Coconut Producers' Cooperative Societies  
(An Examination Regarding the Coconut Producers' Cooperative Societies in  
Puttalam District of the North-West Province)**

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**Introduction:** The domestic production of coconuts in Sri Lanka has been drastically decreased due to the various reasons.

**Objective:** The main objective of this study is to explore the reasons for the decline of coconut producers' cooperative societies in Puttalam district. Studying the current production and providing recommendations for strengthening those societies in the future were the sub-objectives.

**Methodology:** This is an inductive type of qualitative study grounded in interpretivism philosophy. Currently, there are 03 coconut producing cooperative societies in Puttalam district. The population of the study was 230 employees and according to the Morgan table, 144 of them were selected as the sample. A structured questionnaire was used to collect data and 25 people from the top management were interviewed. The answers were described using percentages. Moreover, interviews were analyzed using thematic analysis.

**Results:** The majority of the sample (53.3%) was above 40 years of age and were females. 40% of the sample were permanent employees and the rest were recruited on a temporary basis. Also, the salary of the majority was between Rs.15,000-40,000/- (86%), and 63% have passed in GCE Advanced Level. Coconuts, copra, coconut oil, coir, and coconut husks were the main products of the above societies. Shortage of harvest, lack of new products, competition from the private sector, weaknesses in internal governance, lack of government support, and political interference were the main reasons for the decline of coconut cooperatives as per the thematic analysis.

**Conclusion:** There were several reasons for the decline of coconut producers' cooperative societies in Puttalam district. Focusing on new products, obtaining government support, establishing a good internal control system, and establishing export-oriented private partnership were the recommendations of the study. The researchers suggest to increase the sample and conduct the study in other provinces in the future.

**Keywords:** Coconut producers' cooperative societies, Cooperative movement



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