



# BioInquirer Journal

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<b>Editor in Chief</b>	-	<b>Dr. E. A. K. K. Edirisinghe</b>
<b>Co - Editors</b>	-	<b>Ms. Lakshika Lagoshan</b>
	-	<b>Ms. Stephica Stanley</b>



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**Editor in Chief - Dr. E. A. K. K. Edirisinghe**

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**- Ms. Stephica Stanley**

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# Content

<b>1</b>	<b>List of reviewers</b>	<b>19</b>
<b>2</b>	<b>Message from the Editor in Chief</b>	<b>20</b>
<b>3</b>	<b>Nursing: Empowering nurses for inclusive care</b>	<b>22</b>
3.1	Plenary	(23-24)
3.2	Oral Presentations	(25-29)
<b>4</b>	<b>Public health: Community Engagement and disease prevention for all</b>	
4.1	Plenary	31
4.2	Oral Presentations	(32-38)
<b>5</b>	<b>Biomedical science: Advancements in diagnostic and therapeutic equity</b>	
5.1	Plenary	(40-41)
5.2	Oral Presentations	(42-49)
<b>6</b>	<b>Education: Innovating Health Education for Equity and Excellence</b>	
6.1	Plenary	(51-52)
6.2	Oral Presentations	(53-56)
<b>7</b>	<b>Nutrition and Food Science: Nourishing communities for health equity</b>	
7.1	Plenary	58
7.2	Oral Presentations	(59-63)
<b>8</b>	<b>Health Administration: Leadership and policy for universal health coverage</b>	
8.1	Plenary	65
8.2	Oral Presentations	(66-68)
<b>9</b>	<b>Digital Health and Education: Strengthening health systems through digital innovation</b>	
9.2	Oral Presentations	(70-71)
<b>10</b>	<b>Physiotherapy: Expanding access to rehabilitation and mobility health</b>	
10.1	Plenary	73
10.2	Oral Presentations	(74-77)
<b>11</b>	<b>Reflections</b>	<b>(79-88)</b>
<b>12</b>	<b>Poster presentations</b>	<b>(89-241)</b>

Reference Number	Abstract Title	Page Number
<b>Oral Presentations</b>		
<b>NURSING: EMPOWERING NURSES FOR INCLUSIVE CARE</b>		
OP 01	Inclusion, Inclusiveness and Inclusivity in the Workplace: A Juggling Act to Empower Nurses and Build Resilient Teams	23
OP 02	Empowering Nurses for Inclusive Care	24
OP 03	Revitalizing Nephrology Nursing Education in Sri Lanka: Addressing Gaps and Guiding Curriculum Renewal – A Review	25
OP 04	Role of Self-Esteem in the Relationship between Bullying and Coping Strategies among Nursing Students in a Private Institute	26
OP 05	A Study on Knowledge, Attitudes, and Practices of Patients’ Rights among Nurses in Sri Lanka and Its Impact for Patients’ Satisfaction: A Review	27
OP 06	Impact of Emotional Intelligence on Caring behavior among Nursing Officers	28
OP 07	The Perception of Using Analgesics during Menstruation among Female Undergraduate Students in a Private Institute, Sri Lanka	29
<b>PUBLIC HEALTH: COMMUNITY ENGAGEMENT AND DISEASE PREVENTION FOR ALL</b>		
OP 08	Advancing Inclusive Public Health: Disability as a Case Study in the Sri Lankan Health Context	31
OP 09	Body Composition and Metabolic Health Assessment: A Comprehensive Analysis of Body Fat Percentage, BMI, and Metabolic Age Relationships in Community-Dwelling Adults	32
OP 10	Gender Differences in Body Composition: A Comprehensive Analysis of Anthropometric, Metabolic, and Correlational Patterns in Community-Dwelling Adults	33
OP 11	Experiences of Mothers on Psychosocial Development of Children under Five Years in the Kurunegala MOH Area, Sri Lanka	34
OP 12	Prevalence of Non-Communicable Diseases and Lifestyle-Related Risk Factors among Workers of a Selected Factory in Western Province, Sri Lanka	35
OP 13	A Semi-Urban Community Level Risk Stratification for Non-Communicable Diseases in Gampaha District, Sri Lanka	36
OP 14	Factors Associated with Delayed Initiation of Breastfeeding among Mothers Who Delivered Their Babies at De Soyza Hospital for Women, 2024	37
OP 58	Knowledge, Attitudes, and Health-Promoting Behaviors Related to Selected Non-Communicable Diseases among Secondary-Level School Teachers in the Valikamam Educational Zone, Jaffna District	38

<b>BIOMEDICAL SCIENCE: ADVANCEMENTS IN DIAGNOSTIC AND THERAPEUTIC EQUITY</b>		
OP 15	Hybrid Competencies for Equitable Innovation	40
OP 16	Need of Genetic Counselling in Human Wellbeing: Growth of the Profession and Professional Development	41
OP 17	Male Chromosomal Translocations: Reproductive Impact and Genetic Counseling	42
OP 18	In-Silico Exploration of the Anti-Diabetic Potential of Diosgenin: A Bioactive Compound from Fenugreek (Trigonella Foenum-Graecum)	43
OP 19	In-Silico Determination and Evaluation of Drug Suitability for [6]-Gingerol Compound from Zingiber Officinale Extracts as an Anti-Diabetic Agent	44
OP 20	Computational Insights into Withaferin A as a Potential Antidiabetic Agent	45
OP 21	Advancements in Diagnostic and Therapeutic Equity	46
OP 22	AI-Driven Community-Based Prediabetes Prediction Integrating Oxidative Stress Biomarkers	47
OP 23	Synergistic Role of Seminal Plasma Proteins and Madana Modakaya Constituents in Male Fertility: An Integrative Review	48
OP 24	Pathogenic Vibrio Splendidus Characterized in Sea Horses in Aquaculture Farm	49
<b>EDUCATION: INNOVATING HEALTH EDUCATION FOR EQUITY AND EXCELLENCE</b>		
OP 25	Emotional Intelligence and How Future Facilitators should be Prepared in Education	51
OP 26	Empowering Nurses for Inclusive Care: Simulation, Emotional Resilience, and Cognitive Integration in Health Professions Education	52
OP 27	The Impact of Academic Workload and Time Management on Stress Levels among First-Year University Students at a Private Institute in Sri Lanka	53
OP 28	A Multi-Contextual Analysis of Intrapersonal Communication and Coping Strategies during Examination Periods among Undergraduate Students in Selected Sri Lankan Universities	54
OP 29	Factors Affecting the Clinical Evaluation System in Nursing Education in the Western Province of Sri Lanka	55
OP 30	The English Language Communicative Challenges and Requirements Faced by Private Hospitals Nurses in the Western Province of Sri Lanka	56
<b>NUTRITION AND FOOD SCIENCE: NOURISHING COMMUNITIES FOR HEALTH EQUITY</b>		

OP 31	Nourishing Communities for Health Equity: Sustainable Food Systems, Nutrition Education, and Prevention in South Asia	58
OP 32	Nutritional Status and Dietary Habits among Private University Students in Sri Lanka	59
OP 33	Assess Knowledge and Attitudes on Maternal Nutrition among Pregnant Mothers in the MOH Area, Meerigama	60
OP 34	Knowledge of Pregnant Mothers Regarding Anemia during Pregnancy and How to Prevent and Correct it without Complications among Antenatal Mothers at Teaching Hospital Jaffna	61
OP 35	Assessment of Street Food Vendors' Awareness and Practice Regarding Cooking Oil Usage in Different Areas of Wattala, Sri Lanka	62
OP 36	Assessment of Knowledge, Attitudes, and Practices on Fast Food Consumption among Grade 9 and 10 School Children in Monaragala MOH Area, Sri Lanka	63
<b>HEALTH ADMINISTRATION: LEADERSHIP AND POLICY FOR UNIVERSAL HEALTH COVERAGE</b>		
OP 37	Leadership and Policy for Universal Health Coverage	64
OP 38	Assessing the Quality of Patient Responsiveness in Hospice Care in Sri Lanka: An Evaluation of Patient-Centered Outcomes	66
OP 39	A Clinical Audit on Evaluating the Service Quality of the Non-Communicable Disease (NCD) Unit at Divisional Hospital Palai, Killinochchi, Sri Lanka	67
OP 40	Impact of Illegible Prescriptions on Dispensing Practice among Pharmacies in Wattala, Gampaha District	68
<b>DIGITAL HEALTH AND EDUCATION: STRENGTHENING HEALTH SYSTEMS THROUGH DIGITAL INNOVATION</b>		
OP 41	The Influence of Celebrity Body Figures Posted in Social Media on Abnormal Eating Patterns among Young Adults in a Private Higher Education Institute in Western Province, Sri Lanka	70
OP 42	Relationship between Screen Time and Sleep Quality among Undergraduate Students at a Private University	71

<b>PHYSIOTHERAPY: EXPANDING ACCESS TO REHABILITATION AND MOBILITY HEALTH</b>		
OP 43	Expanding Access to Rehabilitation and Mobility Health: Inclusive Strategies for Equitable Physiotherapy Delivery	73
OP 44	Psychometric Evaluation of the Sinhala Version of the Falls Efficacy Scale-International in Older Adults with Chronic Obstructive Pulmonary Disease	74
OP 45	Knowledge and Attitude on Physical Exercises and Their Long-Term Health Benefits among Healthcare Students in Western Province, Sri Lanka	75
OP 46	Integrated Pharmacological and Physiotherapeutic Approaches in the Management of Chronic Low Back Pain	76
OP 47	Role of Pharmacological Adjuncts in Enhancing Physiotherapy Outcomes for Stroke Rehabilitation	77
<b>REFLECTION</b>		
OP 48	Reflection on Performing a Nasogastric Feeding Procedure	79
OP 49	Reflection on Assisting in Chest Drainage for a Patient with Pneumothorax	80
OP 50	Reflection on Administering a Nasogastric Feed to a Patient	81
OP 51	Reflection on the Misdiagnosis of a Posterior Cruciate Ligament Injury during Clinical Placement	82
OP 52	Reflection on Performing Catheter Care for a Patient with Urinary Retention	83
OP 53	Reflecting on Successful Sputum Collection in COPD Management	84
OP 54	Reflection on Lack of Attention toward Clinical Experience	85
OP 55	Reflecting on Equipment Error and Communication Challenges in TENS Therapy	86

OP 56	Reflection on Assisting with and Health Education on Newborn Bathing in a Maternal Ward	87
OP 57	Reflection on the Administration of a Suppository for Pain Relief in an Emergency Setting	88
<b>Poster Presentations</b>		
PP 01	Readiness for Adoption of Nursing Informatics among Clinical Nursing Professionals in Public Sector Hospitals in Sri Lanka: Characterization and Measurement: A Review	90
PP 02	Evaluating Self-Care Management Practices in Type 2 Diabetic Patients at District General Hospital Vavuniya	91
PP 03	Investigation of Cultural Competence among Registered Nurses at the National Hospital Sri Lanka: with a View to Enhance Healthcare Quality in Sri Lanka	92
PP 04	Assessment of Factors Contributing to Prenatal Stress among Pregnant Women in Sri Lanka: A Sequential Exploratory Mixed-Methods Study	93
PP 05	The Impact of Social Media on the HRQOL of Adults in Gampaha District, Sri Lanka	94
PP 06	Work-Life Balance among Working Nurses in a Private Healthcare Institute in the Gampaha District	95
PP 07	Level of Test Anxiety among Healthcare Students at a Private Healthcare University in Gampaha District	96
PP 08	Risk Factors of Sleep Paralysis among University Students	97
PP 09	Knowledge and Attitudes toward Basic Life Support among Nursing Students at Private Higher Education Centers in Sri Lanka	98
PP 10	Prevalence of Musculoskeletal Disorders (MSD) among Staff at a Selected Private Healthcare Institute in Gampaha District, Sri Lanka	99
PP 11	Knowledge of Rheumatoid Arthritis among Undergraduate Nursing and Physiotherapy Students in a Private University, Sri Lanka	100



PP 12	Associations between Symptoms of Attention-Deficit Hyperactivity Disorder and Life Satisfaction in Healthcare Students at a Selected University In Sri Lanka	101
PP 13	Knowledge and Practice Related to Nutrition among Healthcare Students	102
PP 14	Relationship between Stress and Coping Strategies among Students in a Private University	103
PP 15	Knowledge and Practice Regarding the Use of Personal Protective Equipment (PPE) among Healthcare Students at a Private Institute in Sri Lanka	104
PP 16	A Study on Job Satisfaction of Nurses in the Field of Psychiatry with Special Reference to the National Institute of Mental Health, Sri Lanka	105
PP 17	Access the Awareness and Knowledge on Breast Cancer and Practices on Breast Self-Examination among the Healthcare Students in Colombo	106
PP 18	Factors Influencing Perceived Stress among Nursing Students in a Private Nursing Institute in Sri Lanka	107
PP 19	Awareness on Dietary Habits and Nutrition among Teenagers in a Selected Sunday School in Gampaha District, Sri Lanka	108
PP 20	Knowledge, Attitude, And Practice towards Simulation-Based Learning among IIHS (International Institute of Health Sciences) Nursing Students in Sri Lanka	109
PP 21	Perception of Fast-Food Vs Home-Cooked Meal among Healthcare University Students	110
PP 22	Stress Levels and Coping Mechanisms among University Students during Exams at a Leading Private University in Negombo	111
PP 23	Knowledge, Attitude, and Practice about Dental and Oral Health among Students in Private Universities in Gampaha District, Sri Lanka	112
PP 24	Assessing the Relationship between Social Support and Motivation among Students in a Selected Private University in Sri Lanka	113
PP 25	Factors Affecting Needle Prick Injury among Student Nurses in the College of Nursing, Kandy	114
PP 26	Tendency in Reading Books among Nurses in Leisure Time among Staff Nurses in Teaching Hospital, Anuradhapura	115

PP 27	Childhood Immunization Attitude and Knowledge among Nursing Students	116
PP 28	The Relationship between Socioeconomic Status and Sleep Patterns among Students in a Selected Private University, Gampaha District	117
PP 29	Case Study: Integrating Exome Sequencing and Prenatal Testing to Guide Reproductive Decision-Making in A Consanguineous Couple	118
PP 30	Non-Invasive Brain Stimulation Combined with Exercise: Synergistic Neuroplasticity in Parkinson's Disease: A Comprehensive Review	119
PP 31	Evaluation of Correct and Improper Swabbing Techniques on Microbial Sample Integrity	120
PP 32	Association between Sleep Habits and Behavioral Problems in Early Adulthood in Gampaha District, Sri Lanka	121
PP 33	Determinants of Work-life Balance among Nurses Working at the National Institute of Mental Health, Sri Lanka	122
PP 34	Patient Satisfaction with the Healthcare Services at the Cardiothoracic Clinic of General Hospital, Sri Jayawardenepura, Sri Lanka	123
PP 35	The Association between Acne and Stress among Female Healthcare Students in a Selected University in Gampaha District, Sri Lanka	124
PP 36	Sleep Quality and Quality of Life among Patients with Chronic Kidney Disease in the North Central Province, Sri Lanka	125
PP 37	Study on Dietary Habits and Activity Levels of Nursing Officers in the National Hospital of Sri Lanka in Relation to Health Promotion	126
PP 38	Critical Care Nurses' Knowledge and Practices of Sepsis Care Bundles at National Hospital of Sri Lanka: An Investigation into Practices and Awareness Levels	127
PP 39	Knowledge and Practice of Data Protection in Health Information Related to Medical History and Care Provided to Patients among Nurses in Teaching Hospital, Karapitiya: A Quantitative Cross-Sectional Study	128
PP 40	The Knowledge and Attitude of Mothers about Age-Appropriate Coverage of the Routine Immunization Schedule at the Vaccine Clinic, General Hospital, Nuwara Eliya	129
PP 41	The Nurse's Knowledge, Practice, and Associated Factors towards the Prevention of Surgical Site Infections in the Surgical Ward of the Teaching Hospital, Anuradhapura	130

PP 42	Knowledge and Attitudes towards Gender Based Violence among Nurses in a District General Hospital in Central Province	131
PP 43	Knowledge, Attitudes, and Practices Regarding Healthcare Waste Management among Healthcare Assistants in a District General Hospital in the Central Province	132
PP 44	Knowledge and Attitudes Regarding Use of Analgesic Drugs among the Public in the Katugastota Area, Kandy, Sri Lanka	133
PP 45	Knowledge, Attitudes, and Practices on Non-Pharmacological Pain Management Methods among Nurses at a Selected Hospital in Monaragala District	134
PP 46	Assessment of Knowledge, Attitude and Practice about First Aid among Preschool Teachers in Kurunegala District, Sri Lanka	135
PP 47	Mothers' Knowledge and Practices of Iron Deficiency Anemia during Pregnancy in Miriswaththa MOH Area, Galle District, Sri Lanka	136
PP 48	Glycemic Control and its Associated Factors in Patients with Type 2 Diabetes Mellitus Attending the Diabetic Clinic at Base Hospital, Puttalam	137
PP 49	The Prevalence and Correlated Factors of Psychological Stress among Garment Factory Workers in Kurunegala District	138
PP 50	Knowledge and Attitudes Regarding Dietary Practice among the Patients with Type 2 Diabetes Mellitus Admitted to Medical Ward, Base Hospital, Elpitiya	139
PP 51	Main Factors Influencing the Occurrence of Diabetes and Behaviour Change Approaches in Patients of the Bentota Hospital Diabetic Clinic	140
PP 52	Knowledge and Attitudes of Antibiotic Use and Antibiotic Resistance among the General Public above 20 Years in Kaluthara-South Grama Niladhari (GN) Area	141
PP 53	Knowledge on Pressure Ulcer among Nurses in Indira Gandhi Memorial Hospital, Male', Maldives	142
PP 54	Knowledge, Attitudes, and Practices on Diabetic Foot Care among Patients in a Diabetic Clinic at Teaching Hospital Kuliyaipitiya	143
PP 55	Knowledge and Attitudes on Exclusive Breastfeeding among Antenatal mothers Attending the Teaching Hospital Kuliyaipitiya	144
PP 56	Factors Affecting Musculoskeletal Discomfort among Nursing Officers in Base Hospital Thambuththegama	145

PP 57	Value of Proper Sleep for Student Nurses in School of Nursing Matara, Sri Lanka	146
PP 58	Knowledge and Attitudes on Cataract Surgery among The Patients Who Underwent Cataract Surgery at the Teaching Hospital, Jaffna	147
PP 59	Knowledge, Attitudes and Practices Regarding Surgical Site Infections and Prevention among Nurses Who Work in Surgical and Gynaecology Wards in District General Hospital-Monaragala	148
PP 60	Assess Knowledge, Attitudes, Myths And Barriers and Motivational Acts Affect For Blood Donation among Public In Theldeniya Area	149
PP 61	The Knowledge, Attitude, and Practices on Cervical Cancer Screening Test of Women of 30- 60 Age in the Ihala Millathe Gramaseva Division, Gampaha	150
PP 62	Knowledge, Attitudes and Practice Regarding Needle Stick Injuries among Nurses in District General Hospital Hambantota	151
PP 63	Knowledge and Practice on Prevention of Surgical Site Infection among Surgical Ward Nurses in District General Hospital Vavuniya	152
PP 64	Knowledge, Attitudes and Practices Regarding Breast Feeding among Pregnant Women in Antenatal Clinic General Hospital Hambantota	153
PP 65	The Knowledge, Attitudes, and Perceptions about Acquired Immune Deficiency Syndrome among Nursing Students in a Private Healthcare Institute in Sri Lanka	154
PP 66	The Knowledge and Attitudes toward Infection Control Practices among Nursing Students in a Private Nursing Institute in Sri Lanka	155
PP 67	Exploring Mothers' Perspectives on the Cognitive Development of Children With Down Syndrome in Western Province, Sri Lanka: A Qualitative Study	156
PP 68	Knowledge and Attitude of First Aid for Road Traffic Accidents among Healthcare Students in Gampaha District	157
PP 69	Knowledge of Personality Disorders among Students in a Private University	158
PP 70	Knowledge, Attitudes, and Practices Regarding Iron Deficiency Anemia Prevention among Female Undergraduate Students at A Private Institute	159
PP 71	The Relationship between Violent Video Games and Adolescent Aggression in Healthcare Students at a Private Institute in Western Province, Sri Lanka	160

PP 72	Acceptance of AI Treatment Plans among Physiotherapy Students in a Private Institute in Sri Lanka	161
PP 73	Knowledge about Leptospirosis among Nursing Students in a Private University in Gampaha District, Sri Lanka	162
PP 74	A Study of Facilities for People with Special Needs in Public Buildings in Colombo District, Sri Lanka	163
PP 75	Association between Smartphone Usage and Neck Pain among Private University Students in Gampaha District, Sri Lanka	164
PP 76	Isolation, Biochemical Characterization, and Molecular Identification of Thermotolerant Antibiotic-Resistant Pathogens and Superbugs in Clinical Settings	165
PP 77	Assessing the Awareness and Knowledge of Anemia among Undergraduate Students in a Private University in Gampaha District, Sri Lanka	166
PP 78	Structural and Physicochemical Property Analysis of LukS-PV Subunit of Panton-Valentine Leukocidin (PVL) Toxin, with Insights into Targeted Detoxification	167
PP 79	Efficacy of Commercial Herbal and Synthetic Mouthwashes in Inhibiting Candida Albicans Biofilms and Fungal Growth	168
PP 80	Pre-Examination Anxiety Levels and Coping Mechanisms among Nursing Students at a Private University	169
PP 81	Nursing Students' Knowledge and Role in the Care of Children with Thalassemia	170
PP 82	Physical Activity and Health-Related Quality of Life among Physiotherapy Students at a Private University in Sri Lanka	171
PP 83	Relationship between Exposure to Aggressive Video Games and Aggressive Behaviors in a Private Institute in the Gampaha District	172
PP 84	Water Quality Assessment of the Water in the Tank and Pipeline in the Ragama Water Distribution System of Sri Lanka	173
PP 85	Factors Associated with Stress among Healthcare Students in a Selected Private University, Gampaha	174
PP 86	Associations between Fast-Food Consumption and Body Mass Index	175

PP 87	Fast Food Addiction among University Students in a Private University in Gampaha District	176
PP 88	Knowledge on Gestational Diabetes Mellitus among Nursing Students at a Private University in Gampaha District, Sri Lanka	177
PP 89	The Level of Video Game Addiction among Students at a Private University, Sri Lanka	178
PP 90	English for Fun	179
PP 91	Knowledge on Diabetic Diet Pattern among Staff at a Private University in Sri Lanka	180
PP 92	Health Related Quality of Life among Nursing Students in a Private Nursing Institute in Sri Lanka	181
PP 93	Awareness Level, Knowledge and Attitude towards Breast Cancer among Undergraduate Students of a Private University, Sri Lanka	182
PP 94	Relationship between Screen Time Usage and Symptoms of Digital Eye Strain among Healthcare Students in a Private University	183
PP 95	The Level of Knowledge on Cirrhosis among Students in a Selected Private University	184
PP 96	Prevalence of Risk Factors for Treatment Default among Tuberculosis Patients of Chest Clinic in National Hospital for Respiratory Diseases, Welisara, Sri Lanka	185
PP 97	The Usage of Social Media for Enhancing Knowledge of Nursing Procedure among Nursing Students in Private University: A Qualitative Study	186
PP 98	Knowledge and Attitude Regarding Sex Education among Advanced Level (A/L) Students in Nugegoda, Colombo District, Sri Lanka	187
PP 99	Knowledge, Attitude and Practices of Breastfeeding: A Comparative Study of Mothers in Urban and Suburban Communities in Gampaha District, Sri Lanka	188
PP 100	Students' Perception on Weekly Internal Clinical Presentations Delivered Online and Physically at a Private Institute in Gampaha District	189

PP 101	A Study of Triage Nurses' Competence in Knowledge and Practice on Skills Regarding Cardiac Triage Decisions at the National Hospital of Sri Lanka	190
PP 102	Assess the Stress Level of Healthcare Students at Clinical Placements in a Private Institute in Gampaha District, Sri Lanka	191
PP 103	Knowledge and Awareness on Takotsubo Cardiomyopathy among Healthcare Students	192
PP 104	Sports Safety Awareness among Adolescents in Udubaddawa Divisional Secretariat, Kurunagala District, Sri Lanka	193
PP 105	The Surgical Ward Nurses' Knowledge and Practices Regarding the Surgical Site Infections in the Teaching Hospital, Anuradhapura	194
PP 106	Factors Influencing the Knowledge of Vitiligo among Nursing Students in the Western Province, Sri Lanka	195
PP 107	Reflection on Administering NG Tube Feeding and Medication to a Pneumonia Patient	196
PP 108	Reflection on Challenges Faced during Nasogastric Tube Insertion in a Semi-Conscious Patient	197
PP 109	Reflection on the Removal of a Urinary Catheter in a Post-Cesarean Patient	198
PP 110	Reflection on the Administration of IV Meropenem to a Post-Operative Patient with Urosepsis	199
PP 111	Reflection on the Importance of Patient Safety and Supervision during Physiotherapy Session	200
PP 112	Reflection on Clinical Preparedness and Independent Practice in Physiotherapy	201
PP 113	Reflecting on Training Deficiencies and the Importance of Correct Patient Transfer Technique	202
PP 114	Reflecting on Communication and Patient Care during Ultrasound Therapy in Physiotherapy	203

PP 115	Reflecting on Inadequate Preparation and the Impact on Clinical Performance	204
PP 116	Reflecting on Diagnostic Errors due to Sequence and Imaging Oversight in Clinical Practice	205
PP 117	Reflection on Providing Effective Physiotherapy Care for an Older Adult with Frozen Shoulder	206
PP 118	Reflecting on Knowledge Gaps and Preparation for Lower Back Pain Treatment	207
PP 119	Reflection on Performing Suctioning in Neuro ICU	208
PP 120	Reflecting on Managing Patient Hostility and Communication Breakdown in Clinical Practice	209
PP 121	Reflection on the Administration of an Intramuscular Injection in a Clinical Setting	210
PP 122	Reflecting on Documentation Challenges and Knowledge Gaps in Spirometry Treatment	211
PP 123	Reflection on the Importance of Communication and Teamwork in Multidisciplinary Healthcare Practice	212
PP 124	Reflecting on Professionalism and Patient Care Prioritization in an Elderly Care Setting	213
PP 125	Reflection on Enhancing Clinical Decision-Making and Professional Skills in Neuro- ICU Physiotherapy	214
PP 126	Reflection on the Importance of Patient Assessment and Exercise Progression in Rotator Cuff Rehabilitation	215
PP 127	Reflection on Managing an Uncooperative Post-Stroke Patient during Clinical Placement	216
PP 128	Reflection on the Application of Proprioceptive Neuromuscular Facilitation Techniques in a Neurosurgical ICU Patient	217



PP 129	Reflection on the Development and Implementation of a Treatment Plan for a Patient with Lower Back Pain during Clinical Placement	218
PP 130	Reflection on the Importance of Adhering to Hand Hygiene Protocols in the ICU	219
PP 131	Reflection on Safe Practice and Patient Communication during Neuromuscular Electrical Stimulation	220
PP 132	Reflection on a Patient Safety Incident during Infrared Therapy	221
PP 133	Reflection on an Incident of Incorrect Therapeutic Posture	222
PP 134	Reflection on an Incident during Cupping Therapy Application	223
PP 135	Reflection on a Patient Mobilization Incident	224
PP 136	Reflection on an Incident of Incorrect Therapeutic Posture	225
PP 137	Reflection on the Professional Use of Gloves and Adherence to Infection Control Standards in a Clinical Setting	226
PP 138	Reflection on the Timely Identification of Referred Pain from a Hip-Joint Pathology	227
PP 139	Reflection on the Importance of Clinical Vigilance and Teamwork in Neuro ICU Physiotherapy	228
PP 140	Reflection on the Importance of Comprehensive Assessment in Identifying Referred Pain in Lower Back Pain Patients	229
PP 141	Reflection on Assisted Baby Bathing and Wrapping	230
PP 142	Reflection on Assisting with Breastfeeding in a Maternal Ward	231
PP 143	Reflecting on Unprofessional Conduct and Maintaining Professionalism on the First Clinical Day	232

PP 144	Reflection on Napkin Changing and Draping in a Maternal Ward	233
PP 145	Reflection on Initiating Breastfeeding Post-LSCS	234
PP 146	Reflection on Administering Medication to an Anxious Child	235
PP 147	Reflection on Bathing a Newborn Immediately after Feeding	236
PP 148	Reflection on Administering Eye Medication to a Pediatric Patient	237
PP 149	Reflection on Performing a Nasogastric (NG) Feeding Procedure for the First Time	238
PP 150	Reflection on the Administration of a Subcutaneous Injection in an Elderly Patient	239
PP 151	Reflecting on Diagnostic Oversight and Red Flags in Lower Back Pain Assessment	240
PP 152	Reflection on Performing a Nasogastric (NG) Feeding Procedure for the First Time	241

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## Message from the Editor-in-Chief

It is with great pleasure that I extend a warm welcome to the Proceedings of the IIHS 27<sup>th</sup> BioInquirer – Annual Academic Sessions, 2025, held under the theme “**All for Health, Health for All: Collaborative Innovations for Equitable Healthcare.**” Serving as the Editor-in-Chief of this prestigious forum is both an honor and a profound responsibility.

The chosen theme reflects a pivotal global imperative: advancing healthcare systems that are equitable, inclusive, and resilient. In an era marked by widening health inequities and complex public health challenges, fostering collaborative innovation is essential to ensure that the benefits of scientific discovery, technological advancements, and policy development are accessible to all populations. A collective approach, grounded in multidisciplinary engagement and the principles of universal health coverage, is essential to achieving equitable health outcomes and strengthening health systems at local, regional, and global levels.

This conference recognizes the critical importance of bridging gaps in healthcare delivery by integrating innovative research, interprofessional collaboration, community-centered approaches, and contextually appropriate technological advancements. Through rigorous scientific inquiry and transparent academic discourse, BioInquirer aims to stimulate evidence-based solutions that prioritize vulnerable and underserved communities, uphold ethical and inclusive practice, and contribute to sustainable health development.

This year’s forum is enriched by a keynote address and nine plenary presentations delivered by distinguished scholars and professionals from the United Kingdom, Australia, Finland, India, Singapore, and Sri Lanka. Their expertise will undoubtedly foster meaningful dialogue, broaden perspectives, and reinforce a shared commitment to advancing global health equity.

Over the past decade, the BioInquirer research forum has evolved into a respected academic platform, receiving over 2000 abstract submissions and providing a space for researchers, practitioners, and students to disseminate knowledge and exchange innovative ideas. I extend my sincere appreciation to the advisory board, organizing and scientific committees, editorial team, institutional partners, and volunteers for their invaluable contributions and steadfast dedication. My deepest gratitude is also extended to the authors whose scholarly work forms the foundation of these proceedings.

I hope that the research and reflections presented herein will inspire continued scholarly engagement and catalyze impactful action. May this conference advance our collective pursuit of a future in which equitable healthcare is realized for all, supported by evidence-based practice, collaborative innovation, and a shared commitment to human wellbeing.

Dr. Kithsiri Edirisinghe  
Editor in Chief  
BioInquirer Proceedings

## **ORAL PRESENTATIONS**

## **NURSING: EMPOWERING NURSES FOR INCLUSIVE CARE**

## PLENARY - OP 01

### **Inclusion, Inclusiveness, and Inclusivity in the Workplace: A Juggling Act to Empower Nurses and Build Resilient Teams**

**PROF. MICHELLE CLEARY**

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Being inclusive has become a catch cry of modern-day professionalism and often seems strategically inserted into rhetoric to meet implicit expectations of practice in healthcare. But to be meaningfully inclusive is far more complex than mere rhetoric. It's a juggling act to meaningfully create inclusion (the act), inclusivity (the policies or practices), and inclusiveness (the outcome). Where each is not properly scaffolded to the next, there are multiple points of failure created. Actions must be supported by policies and practices and lead to appropriate outcomes.

Nurses are expected to engage inclusively across clinical care, education, and research, between multidisciplinary teams and within them, with patients and their families, or society more generally, and with ever-evolving technologies and techniques. Yet, the realities of today's healthcare environments, marked by competing priorities, time constraints, and workforce shortages, can make authentic inclusion challenging to enact and sustain. These challenges impact our ability to collaborate meaningfully, engage with diverse perspectives, and support inclusive practice and decision-making.

This presentation draws insights from our research program to explore what authentic, real-world inclusive nursing looks like in practice. It identifies key elements that support inclusive cultures, emphasising the importance of involving consumers, families, nurses, and health professionals to ensure outcomes are meaningful and relevant, while also considering how nurses can contribute to inclusive, high-quality practice, particularly through trauma-informed care. The role of inclusive leadership, role modelling, team building, intentionality, and reflective practice is highlighted as essential in fostering inclusive environments where diverse perspectives are valued and integrated across care and research.

## **PLENARY - OP 02**

### **Empowering Nurses for Inclusive Care**

**PROF. GLENDA WHITING**

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*Registered Nurse, Registered Midwife and Health Educator, Australia*

The theme of the research forum 2025 is “All for Health, Health for All: Collaborative Innovations for Equitable Healthcare” and this presentation looks at “Empowering Nurses for Inclusive Care.”

There will be a focus on the role of nurses in promoting equitable healthcare through community outreach, culturally sensitive care, and advocacy for underserved populations. Inclusive care in nursing emphasizes providing equitable, culturally competent, and compassionate care to all patients, regardless of their backgrounds or circumstances.

Nurses need to advocate for their patients and endeavour to provide equitable care for all. This includes an understanding and respect for diverse cultural backgrounds, fostering a diverse nursing workforce, and ensuring that nursing education integrates diverse and inclusive care.

This presentation will explore implementing inclusive care and key strategies, such as training nurses to understand and respect different cultural practices and beliefs. Ensuring effective communication by using interpreters, being mindful of nonverbal communication relating to diverse cultural norms. Recognizing how factors like ethnicity, customs, and socioeconomic status can influence health beliefs and practices.

Culturally competent care can lead to better health outcomes by addressing the unique needs of each patient and involving patients in their own care decisions by understanding their preferences, values, and needs, and incorporating these into the plan of care.

Nurses should advocate for policies and practices that promote inclusivity and address health disparities. This includes supporting marginalized communities and pushing for systemic changes.



## OP 03

# Revitalizing Nephrology Nursing Education in Sri Lanka: Addressing Gaps and Guiding Curriculum Renewal – A Review

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**Background:** Chronic kidney disease (CKD) is a growing global health crisis, with mortality rising over 40% between 1990 and 2017. In Sri Lanka, CKD, particularly CKD in rural regions, has emerged as a leading cause of morbidity and mortality, affecting an estimated 164,000 individuals by 2020. Nephrology nursing is critical in dialysis, transplantation, prevention, and patient education. However, specialized nursing education in Sri Lanka remains underdeveloped, with the only national-level Post Basic Diploma in Nephrology Nursing (piloted in 2016) discontinued due to sustainability challenges and misalignment with the Sri Lanka Qualifications Framework (SLQF).

**Methods:** This narrative review synthesizes global, regional, and local literature on CKD burden, nephrology nursing education, curriculum standards, and best practices. Frameworks such as the World Health Organization (WHO) curriculum guidelines and the Institutional Curriculum Development Model (ICDM) were analyzed to assess relevance and applicability to Sri Lanka.

**Results:** Findings highlight significant educational gaps in nephrology nursing, including a lack of structured training, outdated curricula, and weak alignment with SLQF and international benchmarks. Systemic issues such as discontinuity of programs, inadequate sustainability planning, and failure to integrate clinical advancements further hinder professional competency development. International models demonstrate that successful nephrology nursing curricula integrate theoretical knowledge, extensive clinical exposure, and continuous professional development. The ICDM offers a systematic framework to guide curriculum renewal, ensuring contextual relevance, stakeholder engagement, and adherence to global standards.

**Conclusion:** Nephrology nursing in Sri Lanka stands at a critical juncture, with the rising CKD burden demanding urgent educational reform. Establishing a nationally recognized, sustainable, and regularly updated curriculum, aligned with SLQF, WHO recommendations, and ICDM principles, will ensure nephrology nurses are equipped with essential skills, knowledge, and attitudes to deliver high-quality care. Such renewal will not only strengthen patient outcomes but also enhance the professional status and sustainability of nephrology nursing within Sri Lanka's healthcare system.

**Keywords:** *Chronic Kidney Disease, Nephrology Nursing, Curriculum Development, Sri Lanka*

## OP 04

### Role of Self-Esteem in the Relationship between Bullying and Coping Strategies among Nursing Students in a Private Institute

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**Background:** Bullying is a prevalent problem in nursing school that can have a detrimental impact on students' academic performance, mental health, and self-esteem. It frequently takes the form of verbal, social, or psychological abuse. Higher self-esteem encourages resilience and adaptive coping mechanisms, whereas low self-esteem may make one more prone to stress and inadequate coping. Improving nursing students' performance and well-being requires an understanding of how self-esteem affects the connection between bullying and coping. Examining this link between nursing students at a private institution in Sri Lanka is the goal of this study.

**Methods:** The study examined the association between bullying, coping mechanisms, and self-esteem among nursing students at a private institution in Sri Lanka using an analytical cross-sectional approach. A standardized questionnaire encompassing sociodemographic information, bullying experiences, coping mechanisms, and self-esteem levels was used to gather data from N = 214 individuals. 4 and 5 point Likert-type scales were used, and SPSS 27, standardized scoring were followed to calculate the final total scores. The international institute ethics committee granted ethical permission, and participation was entirely voluntary.

**Results:** The survey was completed by 214 people in total, and the valid replies varied slightly throughout the scales. The overall bullying score ranged from 14 to 70 (M = 32.36, SD = 11.59), and half of the participants n=107 (50.0%) reported experiencing racial remarks sometimes, frequently, or always; n=103(48.1%) reported having their belongings damaged or stolen; and n=96(44.9%) reported being the target of false rumors. While many participants expressed general satisfaction with themselves n=160 (74.8%), more than half also endorsed negative beliefs such as "I do not have much to be proud of" n=119 (55.6%). Self-esteem ratings (N = 210) varied from 28 to 112 (M = 61.15, SD = 13.72). The most common coping mechanisms were denial n=96 (44.9%), religious coping n=96(44.4%), and the use of addictive behaviors or substances n=86 (40.2%); interestingly, n=82(38.3%) of respondents said they frequently or always used drugs or alcohol to cope. Coping scores (N = 213) varied from 10 to 40 (M = 23.56, SD = 5.21).

**Conclusion:** According to this study, bullying, mostly verbal and social, has a major impact on nursing students' coping mechanisms and sense of self. While students with lower self-esteem tended to engage in maladaptive behaviours, individuals with greater self-esteem employed adaptive coping strategies including problem-solving and asking for help. Nursing students' academic performance can be improved, emotional wellness can be improved, and bullying's detrimental consequences can be lessened by boosting self-esteem and teaching constructive coping mechanisms.

**Keywords:** *Bullying, Self-esteem, Coping Strategies, Nursing student, Relationship*

## OP 05

### **A Study on Knowledge, Attitudes, and Practices of Patients' Rights among Nurses in Sri Lanka and its Impact for Patients' Satisfaction: A Review**

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**Background:** Patients' rights vary from country to country and it is often established culture and social standards that establish the catalog of patients' rights applicable in each country. All people have the right to free health care services in Sri Lanka According to the country framework, the outline of a bill of rights was prepared by a committee reporting to the Ministry of Disaster Management and Human Rights and mandated by the National Human Rights Action Plan adopted by the cabinet in 2011. This included the right to human dignity without discrimination freedom of thought, access to information, and the obtain healthcare. Providing quality and safety care is one of the fundamental roles while delivering nursing care. Nurses with the knowledge and skills provide safe, high quality care with the best possible outcomes. The main goals of nursing care suggest quality improvement of the service, satisfaction of the patient or healthcare consumers, and maintaining the functional status. An international study was conducted to assess the patients' satisfaction on nursing care and results revealed that patients' satisfaction on nursing care was found to be at a moderate level.

**Method:** This narrative review synthesizes international and local literature on patients' rights, bill of rights, patients' rights charter, principles, policies and protocols about patients' rights, legal and ethical inquiries, and best practice with nursing competencies. Frameworks such as the Donabedian model and synergy model were analyzed to assess relevance and applicability to Sri Lanka.

**Result:** Findings highlight the significant gaps among nurses with their existing knowledge, attitudes, and practices regarding patients' rights, including a heavy workload in clinical, inadequate time for education, poor motivation by administrative persons, lack of continuous education, exhausting for duty shift and lack of enhanced nurses' competencies. Systemic issues such as lack of integrated clinical advancements of patient rights charter further rising legal and ethical issues. It also diminishes satisfaction of patients and quality among nurses.

**Conclusion:** Patient's rights in Sri Lanka stands at a major fundamental aspect, with the rising legal and ethical inquiries highlighting the enhancing knowledge, attitudes, and practices among nurses. Establishing satisfaction among patients will ensure nurses are equipped with essential skills, knowledge, and attitudes to deliver quality nursing care. Such renewal will not only strengthen patient satisfaction but also enhance the professional standards of nursing within Sri Lanka's healthcare system.

**Keywords:** *Patients' Rights, Knowledge, Attitudes, Practices, Patients' satisfaction*

## Impact of Emotional Intelligence on Caring Behavior among Nursing Officers- Review

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**Background:** Caring behavior is a fundamental component of professional nursing, influencing patient satisfaction, therapeutic outcomes, and the quality of healthcare delivery. Emotional intelligence (EI), the capacity to perceive, understand, regulate, and apply emotions constructively, has been increasingly recognized as a determinant of caring attitudes and practices. This review aimed to examine the relationship between EI and caring behavior among nursing officers, with specific relevance to the Sri Lankan healthcare context.

**Methods:** A narrative review was conducted using literature from global, regional, and local sources. Relevant studies were identified through database searches (PubMed, Scopus, and Google Scholar) and citation tracking. Articles published in English between 2000 and 2024 that addressed EI, caring behavior, and nursing were included. Findings were synthesized thematically to highlight theoretical perspectives and practical implications.

**Results:** The literature consistently identifies EI as a critical factor in enhancing caring behaviors, particularly in emotionally demanding nursing environments. Two prominent frameworks guide current discourse: the Mayer-Salovey-Caruso Ability Model, which emphasizes the organization and regulation of emotional awareness, and Goleman's Mixed Model, which integrates emotional and social competencies relevant to workplace performance. Evidence indicates that higher EI among nursing officers is associated with improved empathy, stress management, communication, and patient-centered care. However, cultural and contextual variations such as those observed in Sri Lankan hospitals highlight the need for context-sensitive applications of these models.

**Conclusion:** Emotional intelligence significantly influences caring behavior in nursing. Integrating insights from both the Mayer-Salovey-Caruso and Goleman models provides a comprehensive framework for understanding and fostering EI among nursing officers. Strengthening EI through targeted training and professional development could enhance caring practices, improve patient outcomes, and build emotional resilience among healthcare staff. Future research should explore intervention-based studies and culturally grounded approaches to advance EI-driven nursing care in Sri Lanka.

**Keywords:** *Emotional Intelligence, Caring Behavior, Nursing Officers, Healthcare, Sri Lanka*

## OP 07

### The Perception of Using Analgesics during Menstruation among Female Undergraduate Students in a Private Institute, Sri Lanka

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**Background:** Menstrual pain (dysmenorrhea) is a common gynaecological concern among women of reproductive age, often leading to absenteeism, decreased academic performance, and psychological distress. Despite the frequent use of analgesics as a primary pain management method, perceptions regarding analgesic use vary widely among young women. Limited research has been conducted in Sri Lanka exploring the perceptions and practices related to analgesic use during menstruation among undergraduate students. Therefore, the main aim of this study is to assess the perception of analgesic use during menstruation among female undergraduate students at a private institute in Sri Lanka.

**Method:** A descriptive, cross-sectional study design was carried out within the population of female undergraduate students aged 18–30 years who experience menstruation. Simple random sampling method has used to ensure unbiased participant selection. Data were collected using a pre tested and validated, self-administered, structured web-based questionnaire which includes demographics, menstrual profile analgesic usage and its pattern, knowledge and perception regarding analgesics, which is designed exclusively for this study. The collected data were analysed using descriptive statistics, including frequencies, percentages, and mean scores, while the inferential analysis using Chi-square test was performed with SPSS version 26 to determine associations between selected variables.

**Results:** A total of 263 female undergraduate students participated in the study, yielding a response rate of 87.6%. Most participants were aged 20–25 years. The majority reported mild (39.9%) or moderate (43%) menstrual pain, while 17.1% experienced severe pain. Overall, 88.6% (n=233) of respondents used analgesics for menstrual pain, whereas 11.4% (n=30) did not. Paracetamol was the most commonly used analgesic (72.5%). More than half (51.9%) used analgesics based on their own decision, and 89.3% preferred them for quick pain relief. Regarding knowledge, 65.4% (n=172) strongly agreed that analgesics are safe when taken at the correct dose, and 63.5% (n=167) agreed that frequent use can lead to health problems. This indicates good awareness of safe analgesic use. In terms of perception, 50.2% (n=132) strongly agreed that they feel comfortable using painkillers during menstruation, and most participants expressed a desire for more education and awareness on the safe use of analgesics.

**Conclusion:** While most students possessed fair knowledge and positive perception toward analgesic use, gaps remain in awareness of safe usage and long-term consequences. Educational interventions promoting rational analgesic use are recommended among young female populations.

**Key words:** *Analgesics, Menstrual pain, Perception, Knowledge, Female undergraduate students, Self-medication*

**PUBLIC HEALTH: COMMUNITY ENGAGEMENT AND  
DISEASE PREVENTION FOR ALL**

## PLENARY - OP 08

### **Advancing Inclusive Public Health: Disability as a Case Study in the Sri Lankan Health Context**

**ASSOC. PROF. JOANNE WATSON**

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Equity in healthcare cannot be achieved without the full inclusion of people with disability. In Sri Lanka, where public health systems are navigating the dual pressures of non-communicable diseases and post-pandemic recovery, the need for inclusive, community-based health promotion has never been more urgent.

This presentation explores how public health and health promotion initiatives can be more inclusive of people with disability, using this population as a case study to examine broader systemic challenges and opportunities. Drawing on the Ottawa Charter and the social determinants of health framework, the session highlights how disability intersects with poverty, education, and access to care, issues that are particularly relevant in Sri Lanka's current economic and healthcare landscape.

The presentation will spotlight practical strategies for inclusive health promotion in Sri Lankan hospital and community settings, including the use of accessible communication, co-design with people with disability, and rights-based approaches. It will also explore the role of health professionals, nurses, allied health workers, and community health officers, as trusted, frontline advocates for change.

By focusing on disability, this session invites participants to reflect on how inclusive design benefits not only people with disability but all members of society. It calls for a shift from reactive care to proactive inclusion, from individual interventions to systemic transformation. In doing so, it affirms that inclusive public health is not a niche concern; it is central to achieving "Health for All" in Sri Lanka.

## OP 09

### Body Composition and Metabolic Health Assessment: A Comprehensive Analysis of Body Fat Percentage, BMI, and Metabolic Age Relationships in Community-Dwelling Adults

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**Background:** Traditional anthropometric measures like Body Mass Index (BMI) may inadequately assess metabolic health risk in community populations. Body fat percentage and metabolic age represent potentially superior indicators for early detection of metabolic dysfunction, yet limited research has directly compared their predictive capabilities. This study aimed to investigate correlations between body fat percentage, BMI, and metabolic age to determine which metric provides superior prediction of metabolic health outcomes, with examination of gender-specific patterns and age-related variations.

**Methods:** Cross-sectional analysis of 60 community-dwelling adults (mean age  $37.5 \pm 14.2$  years; 75% female) who underwent comprehensive body composition analysis using bioelectrical impedance analysis. Primary measurements included BMI, body fat percentage, and calculated metabolic age. Statistical analyses employed Pearson correlations, independent t-tests, and linear regression modeling to assess relationships between variables and identify predictive patterns.

**Results:** Chronological age demonstrated a strong correlation with metabolic age ( $r = 0.771$ ,  $p < 0.001$ ). Body fat percentage showed moderate correlation with metabolic age ( $r = 0.497$ ,  $p < 0.001$ ), while BMI exhibited weak correlation ( $r = 0.215$ ,  $p > 0.05$ ). Thirty participants (50%) demonstrated accelerated metabolic aging exceeding 10 years above chronological age, with young adults (20-30 years) showing the largest metabolic age gap ( $12.8 \pm 8.4$  years). Significant gender differences emerged in body fat percentage (males:  $28.7 \pm 4.7\%$  vs females:  $35.5 \pm 4.7\%$ ,  $p < 0.001$ ). Body fat percentage demonstrates superior predictive capability for metabolic age compared to BMI, suggesting enhanced utility for metabolic health assessment. The high prevalence of accelerated metabolic aging, particularly in younger demographics, indicates widespread early-onset metabolic dysfunction that traditional screening may miss.

**Conclusion:** These findings support integration of body fat percentage assessment into routine health screening protocols and development of targeted interventions for populations showing premature metabolic aging. Enhanced community health screening using advanced body composition metrics could enable earlier detection and prevention of metabolic disorders.

**Keywords:** *Body Composition, Metabolic Age, BMI, Body Fat Percentage, Community Health, Bioelectrical Impedance, Metabolic Dysfunction, Preventive Screening*



## OP 10

### Gender Differences in Body Composition: A Comprehensive Analysis of Anthropometric, Metabolic, and Correlational Patterns in Community-Dwelling Adults

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**Background:** Gender-specific differences in body composition have significant implications for health risk assessment, therapeutic interventions, and metabolic disease prevention. Traditional healthcare approaches often apply universal criteria across genders, potentially missing important sex-specific patterns that could enhance risk prediction and therapeutic targeting. Understanding these differences is crucial for developing targeted healthcare strategies and personalized medicine approaches. This study aimed to comprehensively analyze gender differences in body composition, metabolic health indicators, and their correlational patterns in community-dwelling adults.

**Methods:** Cross-sectional analysis of 60 community-dwelling adults (75% female, 25% male) underwent comprehensive body composition assessment, including anthropometric measurements, bioelectrical impedance analysis, and metabolic age calculation. Statistical analyses included independent t-tests for gender comparisons with effect size calculations, Pearson correlations for relationship assessment within gender groups, and regression modeling for predictive analysis. Body composition phenotypes were classified and analyzed by gender distribution patterns.

**Results:** Significant gender differences were observed in key anthropometric variables with large effect sizes: height (males  $170.0 \pm 6.7$  cm vs females  $156.5 \pm 5.4$  cm, Cohen's  $d=2.35$ ), weight (males  $77.1 \pm 12.3$  kg vs females  $59.2 \pm 8.8$  kg,  $d=1.84$ ), and body fat percentage (males  $28.7 \pm 4.7\%$  vs females  $35.5 \pm 4.7\%$ ,  $d=1.45$ ). Correlation patterns differed markedly by gender: Age  $\times$  Metabolic Age correlation was stronger in females ( $r=0.844$ ) than males ( $r=0.494$ ), while BMI  $\times$  Body Fat correlation was stronger in males ( $r=0.625$ ) than females ( $r=0.260$ ). Phenotype analysis revealed 26.7% of males were obese compared to 4.4% of females. The divergent correlation patterns between genders have significant clinical implications, suggesting that predictive models and risk assessment tools should incorporate gender-specific algorithms. The stronger BMI-body fat correlation in males indicates that traditional anthropometric measures may be more informative for male health assessment, while females demonstrate more predictable metabolic aging patterns.

**Conclusion:** Gender differences in body composition extend beyond simple anthropometric variations to include distinct correlational patterns and metabolic relationships. These findings support the development of gender-specific assessment protocols, reference ranges, and intervention strategies in clinical practice and public health initiatives.

**Keywords:** Gender Differences, Body Composition, Sexual Dimorphism, Anthropometry, Metabolic Health, Correlation Analysis, Personalized Medicine, Risk Assessment

## OP 11

### **Experiences of Mothers on Psychosocial Development of Children under Five Years in the Kurunegala MOH Area, Sri Lanka**

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**Background:** Psychosocial development in the first five years of life is critical for shaping a child's emotional regulation, social skills, language acquisition, and cognitive growth. Despite national recognition of gaps in early psychosocial development, limited attention is given to the role of mothers in fostering this area of child well-being. This study aims to explore mothers' perceptions, understanding, and parenting practices related to enhancing psychosocial development in children under five, within the context of extended family support, community engagement, and healthcare services in the Kurunegala MOH area.

**Methods:** A qualitative approach was adopted, utilizing six semi-structured interviews and two focus group discussions involving 14 mothers of children under five from selected Grama Niladhari divisions. Data were audio-recorded, transcribed, and analyzed using thematic analysis.

**Results:** While mothers showed a good understanding of physical developmental milestones, their knowledge of psychosocial domains such as emotional and language stimulation, play, and peer interaction was limited. Many assumed that learning begins only at preschool, underestimating the value of early caregiver-child interactions. Emotional and behavioral issues were often attributed to a child's temperament rather than caregiving practices. Though extended families provided support, this was often grounded in traditional beliefs rather than evidence-based developmental practices. Mothers reported attending routine child welfare clinics; however, these predominantly emphasized nutrition and weight monitoring, with minimal focus on psychosocial development or developmental delay screening. Despite these gaps, mothers expressed a strong willingness to learn, highlighting a lack of accessible educational resources.

**Conclusion:** Mothers in the Kurunegala MOH area are dedicated to their children's well-being but possess limited awareness of psychosocial development. Existing healthcare services focus largely on physical health, offering minimal structured support for psychosocial aspects. To strengthen psychosocial development in children under five, routine healthcare services should integrate parental counselling on emotional, social, cognitive, and personality development. Public health midwives could play a vital role by conducting home visits that include stimulation activities, practical guidance, and developmental screenings.

**Keywords:** *Psychosocial Development, Children Under Five, Mothers' Experience, Parenting Practices, Sri Lanka*

## OP 12

### **Prevalence of Non-Communicable Diseases and Lifestyle-Related Risk Factors among Workers of a Selected Factory in Western Province, Sri Lanka.**

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**Background:** Non-communicable diseases (NCDs) have become the leading cause of global morbidity and mortality, with significant implications for workforce productivity and economic stability. Factory workers represent a unique population group, often exposed to unhealthy lifestyle practices, which increases their risk of getting NCDs. This study aimed to determine the prevalence of NCDs and lifestyle-related risk factors among workers of a selected factory in Western Province, Sri Lanka.

**Methods:** A cross-sectional descriptive study was conducted among 355 factory workers, aged 24-60 years, comprising 340 males (95.8%) and 15 females (4.2%). Data were collected using interviewer-administered questionnaires, anthropometric measurements, previous medical records, and the latest investigation results. Then the diagnosis of NCDs was documented. Statistical analysis was done, and it included descriptive measures and t-tests, to explore associations between NCDs and their lifestyle-related risk factors, with significance set at  $p < 0.05$ .

**Results:** From the total of 355 participants, 324 (91.3%) had at least one NCD. The most prevalent condition was hyperlipidemia (75.2%), followed by prediabetes (36.3%), hypertension (28.5%), diabetes mellitus (22%), and ischemic heart disease (1.7%). All reported inadequate physical activities (100%), and the prevalence of overweight and obesity was very high (74.6%). Alcohol consumption was reported among all the male participants (95.8%), and 70.7% of participants were smokers (all were males). Dietary assessments revealed high reliance on processed foods, very low intake of fruits (3.1%), and a significant intake of vegetables (94.1%). Significant associations were elicited between NCD prevalence and smoking, alcohol consumption, overweight/obesity, processed food intake, type of rice consumed, and coconut oil usage (all  $p < 0.05$ ). These findings almost align with regional and global evidence, including the STEPS survey 2023 Sri Lanka, which highlighted increasing obesity, prediabetes, and lifestyle-related NCD risks among adults.

**Conclusion:** The study highlights an alarmingly high prevalence of NCDs among workers of this factory, primarily driven by modifiable lifestyle-related risk factors. These findings underscore the urgent requirement for workplace health interventions, and those interventions need to be focused on promoting adequate physical activity, healthier dietary practices, together with reduction/ abstinence of alcohol usage and smoking. Strengthening policies for wellness and occupational health screening programs can mitigate the rising burden of NCDs in this vulnerable factory population.

**Keywords:** *Non-Communicable Diseases, Factory Workers, Lifestyle-related Risk Factors, Workplace Health, Prevalence, Sri Lanka*

## OP 13

### A Semi-Urban Community Level Risk Stratification for Non-Communicable Diseases in Gampaha District, Sri Lanka

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**Background:** Non-communicable diseases (NCDs), also known as chronic diseases, represent the leading cause of death worldwide, accounting for 71% of all global deaths. Countries like Sri Lanka are experiencing a rapid health transition where NCDs are becoming dominant, creating a "double burden" on health systems that previously focused on communicable diseases. This necessitates a clear understanding of NCD risk factors, as measuring them is vital for predicting future disease distribution and informing prevention and control programs. This study aimed to classify NCD risks within the Community in Western Province, Sri Lanka

**Methods:** A descriptive, cross-sectional, and quantitative investigation was used, and 253 community members took part in the study using virtual questionnaires through direct interviews to gather data by assessing specific demographic and physiological indicators. Data was analyzed using SPSS software, employing descriptive statistics, percentages, and diagrams.

**Results:** The study included 253 participants, of whom 178 were female (70.4%) and 75 were male (29.6%). The ages of the participants range from a minimum of 13 years to a maximum of 75 years, with a mean age of 38 years (SD = 14.7). Descriptive analysis by gender revealed that both females and males had similar mean BMIs, 24.4 kg/m<sup>2</sup> and 24.3 kg/m<sup>2</sup>, respectively. Further, males presented with higher mean systolic blood pressure (127.63 mmHg) and diastolic blood pressure (78.77 mmHg) than females (systolic -118.48 mmHg, diastolic -76.27 mmHg). All reported Pearson correlations were statistically significant at the 0.01 level (2-tailed). Age showed a positive correlation with BMI ( $r = 0.312$ ,  $p < 0.001$ ), systolic blood pressure ( $r = 0.480$ ,  $p < 0.001$ ), and diastolic blood pressure ( $r = 0.249$ ,  $p < 0.001$ ). BMI also showed a positive, moderate correlation with systolic blood pressure ( $r = 0.312$ ,  $p < 0.001$ ) and a positive, weaker correlation with diastolic blood pressure ( $r = 0.251$ ,  $p < 0.001$ ).

**Conclusion:** The results show strong correlations between blood pressure, age, and BMI, highlighting the significance of early risk factor identification and focused community-level interventions and prevention tactics. It is possible to promote improved disease control and population health outcomes by strengthening preventative methods and incorporating routine risk assessments into primary healthcare.

**Keywords:** *Non-Communicable Diseases (NCDs), Risk Classification, Community*

## OP 14

### Factors Associated with Delayed Initiation of Breastfeeding among Mothers Who Delivered Their Babies at De Soyza Hospital for Women, 2024

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**Background:** Early initiation of breastfeeding (within one hour of birth) is recommended by the World Health Organization (WHO) and provides multiple health benefits for infants and mothers. Exclusive breastfeeding for six months improves infant health, while breastfeeding reduces maternal risk of breast and ovarian cancer, obesity, diabetes, hypertension, and coronary heart disease. Despite this, some mothers experience delayed initiation of breastfeeding, which may affect infant and maternal outcomes.

**Methods:** A descriptive cross-sectional study was conducted at De Soyza Hospital for Women, Colombo, Sri Lanka. A total of 155 mothers participated. Demographic data and factors related to delayed initiation of breastfeeding were collected using a structured questionnaire with multiple-choice questions. Data analysis was performed using SPSS version 23.

**Results:** Of the 155 mothers, 91.6% initiated breastfeeding within one hour, while 8.4% delayed beyond one hour. A majority (81.3%) fed colostrum, and 89.7% did not provide prelactation feeds. Delivery type was the only significant factor associated with delayed initiation ( $p = 0.006$ ), with cesarean delivery strongly linked to delay. Other factors such as maternal age, marital status, education, antenatal visits, family size, and maternal attitudes were not significantly associated. Overall, 98.1% of mothers showed positive attitudes toward breastfeeding.

**Conclusion:** Delivery type significantly influences the timely initiation of breastfeeding, with cesarean deliveries being particularly associated with delays. Healthcare providers should implement targeted support strategies based on delivery type, including enhanced guidance, early skin-to-skin contact, and lactation support, to promote early initiation and improve overall breastfeeding outcomes, ensuring both maternal and infant health benefits.

**Keywords:** *Associated Factors, Delayed Initiation, Breastfeeding, Mothers, Sri Lanka*

## Knowledge, Attitudes, and Health-Promoting Behaviors Related to Selected Non-Communicable Diseases among Secondary-Level School Teachers in the Valikamam Educational Zone, Jaffna District

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**Background:** Non-communicable diseases (NCDs) are a major public health concern in Sri Lanka, with lifestyle factors significantly influencing disease burden. Teachers play a vital role in shaping community health awareness, making it essential to assess their knowledge, attitudes, and practices (KAP) toward NCD prevention. This study aims to assess the knowledge, attitudes, and health-promoting behaviors related to selected NCDs among secondary-level school teachers in the Valikamam Educational Zone, Jaffna District.

**Methods:** A descriptive cross-sectional survey was conducted among 302 secondary school teachers in the Valikamam Educational Zone, Jaffna, from September to October 2025. Participants were selected using simple random sampling from staff lists (target  $n = 427$ ). Data were collected through a self-administered, validated questionnaire translated (English  $\rightarrow$  Tamil) and back-translated, assessing sociodemographic factors and knowledge, attitudes, and practices regarding noncommunicable disease (NCD) prevention. Data were analyzed using descriptive statistics and chi-square tests in SPSS version 26.

**Results:** Among 302 participants, 39.1% were aged 46–55 years, 66.6% were female, 62.6% held a degree, and 74.5% were married. Nearly half (48.3%) demonstrated good knowledge, 64.2% exhibited positive attitudes, and 38.4% engaged in good preventive practices. Knowledge was significantly associated with age, gender, education, marital status, and income ( $p < .05$ ). Respondents knowledgeable about maintaining a BMI of 18.5–23, regular exercise, abstaining from alcohol and tobacco, and health screening after age 35 had significantly higher KAP scores ( $p < .001$ ). Despite good awareness, only 38.4% practiced consistent healthy behaviors; 48.3% rarely monitored their weight, and 37.7% skipped regular screenings.

**Conclusion:** Although teachers demonstrated strong awareness and positive attitudes toward NCD prevention, their health-promoting behaviors were insufficient. Continuous education, workplace wellness initiatives, and behavioral reinforcement are recommended to enhance lifestyle modification practices among educators.

**Keywords:** *Non-communicable diseases, knowledge, attitudes, health-promoting behaviors, teachers, Sri Lanka*

**BIOMEDICAL SCIENCES: ADVANCEMENTS IN  
DIAGNOSTIC AND THERAPEUTIC EQUITY**

## PLENARY - OP 15

### Hybrid Competencies for Equitable Innovation

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Advances in biomedical sciences have transformed diagnostics and therapies, yet their benefits are not equally distributed. Sophisticated instruments and cutting-edge tests often remain concentrated in high-resource settings, while affordability and accessibility lag behind. Achieving diagnostic and therapeutic equity requires not only discoveries but also professionals who can translate innovations into scalable solutions available to wider populations.

Biomedical laboratory scientists are central to this process. Traditionally trained to analyze biological samples and support clinical decisions, they now face growing expectations to master the technical principles behind instruments, testing methods, and analytical systems. When biomedical expertise is combined with technical knowledge, professionals can better evaluate, adapt, and co-create new diagnostic tools, including point-of-care and portable diagnostics that bring testing closer to the patient.

At the same time, consumer health technologies are reshaping the landscape. Smartwatches, smartphones, and smart rings such as the ‘Finnish Oura Ring’ offer continuous monitoring of heart rate, oxygen saturation, sleep, and early infection markers such as subtle changes in resting heart rate, variability, skin temperature, or respiratory rate. While they do not replace laboratory diagnostics, they represent accessible, low-cost tools for preventive care and early detection, expanding health monitoring beyond hospitals and into daily life. Portable diagnostic platforms are also making a difference globally. For example, rapid malaria tests have significantly improved case detection in resource-limited regions.

Finland provides a strong example of how education aligns with these needs. Metropolia University of Applied Sciences has launched an international pathway where students complete an Advanced Diploma in Biomedical Laboratory Science abroad, including bridge studies aligned with Metropolia’s curriculum, and then finalize their degree in Finland. Graduates earn a Bachelor’s degree in Laboratory Services in the field of technology. After two years of relevant work experience, they are also eligible to apply for Metropolia’s Master of Engineering in Smart Industry programme, reflecting the recognition of their hybrid competencies even in engineering-focused fields.

Such graduates become bridges between biomedicine, technology, and business, ensuring that breakthroughs from rapid infection tests to mobile diagnostic platforms are transformed into solutions that can improve health globally. Higher education thus plays a decisive role in advancing equitable healthcare by fostering hybrid competencies for innovation.



## PLENARY - OP 16

### **Need of Genetic Counselling in Human Wellbeing: Growth of the Profession and Professional Development**

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The history of the genetic counselling profession has long been criticized due to its early association with the eugenics movement; however, it later counteracted eugenic ideas. From the 1960s onwards, nondirective counselling and the emphasis on counselee autonomy were introduced, which contributed to the professional development of genetic counselling (GC).

Over the last two decades, there has been a significant proliferation of genetic counsellor roles and practices, as well as independent professional development, including the global establishment of specialized genetic counselling (GC) courses and certification programs. Recognizing its importance in the health sector, GC was introduced as a specialization in the two-year Master's program in Biomedical Genetics during the 2013–2015 academic years at Vellore Institute of Technology, Vellore, India.

## OP 17

### Male Chromosomal Translocations: Reproductive Impact and Genetic Counseling

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**Background:** Chromosomal translocations are a well-established cause of reproductive challenges, including congenital anomalies, recurrent pregnancy loss, and infertility. This case series explores three non-consanguineous couples with distinct reproductive histories, each linked to chromosomal rearrangements in the male partner, highlighting the clinical relevance of cytogenetic evaluation.

**Methods:** Detailed clinical histories were obtained during genetic counseling and cytogenetic analyses were conducted for three couples presenting with adverse reproductive outcomes. Karyotyping was performed on both partners, and microarray analysis was utilized where applicable. The cases were evaluated for phenotypic correlations and reproductive implications.

**Results:** In case 1, a primigravida couple experienced pregnancy termination due to a complex cardiac anomaly; ultrasound findings revealed increased nuchal translucency (8 mm) and a ductus venosus (DV) shunt type II, while microarray analysis showed a gain on chromosome 4 and a loss on chromosome 9. Cytogenetic evaluation identified that the husband carried a balanced reciprocal translocation between chromosomes 4 and 9. In case 2, a couple with a healthy first child experienced multiple missed abortions (GII–GV) with no evaluation of products of conception, and karyotyping revealed a balanced translocation between chromosomes 10 and 22 in the husband. In case 3, a couple with primary infertility underwent karyotyping which identified a Robertsonian translocation involving chromosomes 13 and 14 in the husband, and IVF led to a successful pregnancy and delivery of a healthy female child. These cases underscore the phenotypic variability and reproductive consequences of balanced chromosomal translocations, and they also demonstrate the importance of genetic counselling and the role of assisted reproductive technologies in managing such cases.

**Conclusion:** Cytogenetic evaluation is essential in couples with unexplained reproductive issues. Early identification of chromosomal translocations enables informed reproductive planning, targeted genetic counselling, and improved outcomes through assisted reproductive techniques.

**Keywords:** *Balanced translocation, chromosomal rearrangement, recurrent pregnancy loss, infertility, Robertsonian translocation, genetic counselling, IVF*

## OP 18

### In-Silico Exploration of the Anti-Diabetic Potential of Diosgenin: A Bioactive Compound from Fenugreek (*Trigonella Foenum-Graecum*)

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**Background:** Diabetes mellitus is a chronic metabolic disorder with rising global prevalence rates. The disease is characterized by persistent hyperglycemia, leading to severe complications. Among available therapeutic strategies, plant-based treatments are gaining attention due to their affordability and fewer side effects. This study investigates the antidiabetic potential of diosgenin, a key bioactive compound found in *Trigonella foenum-graecum* (Fenugreek).

**Method:** Using *in-silico* molecular docking techniques, diosgenin was evaluated for its inhibitory potential against key carbohydrate-metabolizing enzymes: human lysosomal acid-alpha-glucosidase (5NN8), human pancreatic alpha-amylase (1B2Y), and human salivary alpha-amylase (1SMD). The protein structures were prepared and docked with diosgenin using AutoDock version 4.2.6. Docking conformations were clustered to identify the best binding site. Acarbose, an FDA-approved antidiabetic drug, was used as the reference standard for docking experiments. Protein-ligand interactions were analyzed with AutoDock and visualized in Discovery Studio Visualizer. Drug likeness and pharmacokinetic properties of Diosgenin were evaluated using SwissADME and Osiris Explorer.

**Results:** Diosgenin showed relatively high binding affinities with low binding energies of -7.14kcal/mol for 5NN8, -7.62 kcal/mol for 1B2Y, and -7.82kcal/mol for 1SMD. Diosgenin formed hydrogen bonds with key active site residues, such as SER924 in 5NN8 and ASP197 in both 1B2Y and 1SMD. Osiris Explorer showed no mutagenic, tumorigenic, or irritant risks for diosgenin, with a minor possibility of reproductive toxicity. The compound had a drug-likeness score of 0.84 and a drug-score of 0.31. Diosgenin showed high gastrointestinal absorption, blood-brain barrier permeability, no interaction with P-glycoprotein, and no structural alerts for toxicity. Transmembrane helix prediction showed that all three target receptors were located outside the transmembrane regions.

**Conclusion:** These findings suggest that diosgenin has promising inhibitory activity against lysosomal acid-alpha-glucosidase, pancreatic alpha-amylase, and salivary alpha-amylase enzymes, supporting its potential as a natural therapeutic agent for diabetes management. Further *in-vitro* experimental validation is recommended to confirm these computational predictions.

**Keywords:** Diosgenin, Fenugreek, Anti-diabetic Therapeutics, In-silico Drug Likeness, Computational Drug Discovery

## In-Silico Determination and Evaluation of Drug Suitability for [6]-Gingerol Compound from *Zingiber Officinale* Extracts as an Anti-Diabetic Agent

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**Background:** Diabetes mellitus, a chronic metabolic disorder characterized by persistent hyperglycaemia, poses a growing global health burden, particularly in low- and middle-income countries such as Sri Lanka. Conventional treatments often have limitations, including adverse effects and restricted accessibility, prompting the exploration of plant-derived alternatives. *Zingiber officinale* (ginger) has attracted attention due to its bioactive phytochemicals, especially [6]-gingerol, which exhibits antioxidant and glucose-lowering properties. While *in vivo* studies suggest anti-diabetic effects of ginger, *in silico* evaluations of gingerol's interaction with diabetes-related molecular targets remain limited. This study aims to investigate the potential of gingerol to modulate key proteins involved in glucose metabolism through molecular docking analyses.

**Methods:** Three protein targets associated with insulin activity and glucose regulation were selected: human lysosomal acid-alpha-glucosidase (5NN8), human salivary alpha-amylase (1SMD), and human pancreatic alpha-amylase (1B2Y). Gingerol's 3D structure was retrieved from PubChem and energy minimized using Chem3D. Protein–ligand docking was performed using AutoDock version 4.2.6, with grid parameters guided by MetaPocket 2.0 predictions. Post-docking interactions were analysed using Discovery Studio Visualizer. Toxicity and drug-likeness properties were evaluated using Osiris Property Explorer and SwissADME.

**Results:** Gingerol demonstrated moderate binding affinities: –4.12 kcal/mol (5NN8), –2.64 kcal/mol (1SMD), and –3.13 kcal/mol (1B2Y). Interaction analysis revealed four hydrogen bonds with ARG608, HIS584, MET363, and LEU868 in 5NN8, and two hydrogen bonds with LYS200 and GLU233 in 1SMD, along with stabilizing alkyl and van der Waals interactions. Toxicity predictions indicated no mutagenic, carcinogenic, irritant, or reproductive risks. SwissADME analysis confirmed compliance with key drug-likeness criteria, including Lipinski and Veber rules, and demonstrated a favourable drug score of 0.4, indicating good pharmacokinetic properties and potential for further development.

**Conclusion:** The findings highlight gingerol's potential as a natural anti-diabetic agent. Its interactions with key glucose-regulating proteins, combined with favourable toxicity and drug-likeness profiles, warrant further experimental validation to support its development as a nutraceutical or novel therapeutic for glycaemic control in diabetes.

**Keywords:** Diabetes Mellitus, [6]-gingerol, Computational Drug Discovery, Glucose Metabolism, Natural Therapeutics

## Computational Insights into Withaferin as a Potential Antidiabetic Agent

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**Background:** Diabetes mellitus is a major global health concern associated with elevated morbidity and mortality. This has led to increased interest in novel therapeutics, particularly plant-derived compounds, due to their bioactivity and reduced side effects. Withaferin A, a steroidal lactone isolated from *Withania somnifera*, has demonstrated pharmacological properties such as anticancer and anti-inflammatory activities. However, its antidiabetic potential remains poorly studied. This study aimed to investigate the antidiabetic potential of Withaferin A through in silico approaches and to assess its drug-likeness as a potential lead compound.

**Methods:** Virtual screening and molecular docking were performed using AutoDock (v4.2.6) against three diabetes-related protein targets: human salivary  $\alpha$ -amylase (1SMD), human pancreatic  $\alpha$ -amylase (1B2Y), and lysosomal acid- $\alpha$ -glucosidase (5NN8). Energy-minimized ligand through Avogadro (v1.2.0) was used for docking, and binding affinities were analyzed using clustering histograms and RMSD evaluations. Protein-ligand interactions were further visualized and assessed through Discovery Studio (v24.1.0). Drug-likeness and toxicity profiles were evaluated using SwissADME and OSIRIS Property Explorer (2017). As this was an in-silico study with no pathogen screening, microbiological media were not required, and targets were selected based on their roles in carbohydrate digestion and glucose regulation.

**Results:** The docking and computational analyses provided clear insights into the antidiabetic potential of Withaferin A. The compound exhibited favourable binding affinities with all three targets:  $-5.72$  kcal/mol for 1SMD,  $-6.48$  kcal/mol for 1B2Y, and the strongest interaction at  $-7.26$  kcal/mol for 5NN8. Discovery Studio analysis indicated hydrogen bond formation with all three receptors (two with 1SMD, one with 5NN8, and three with 1B2Y). SwissADME analysis revealed no violations of Lipinski's rule of five or PAINS alerts, with high oral bioavailability and low toxicity. OSIRIS analysis predicted no mutagenic, irritant, or tumorigenic effects, though moderate reproductive risks were identified. The drug-likeness score (1.69) and cLogP value (2.49) were within acceptable ranges, suggesting good absorption and oral bioavailability.

**Conclusion:** The findings indicate that Withaferin A shows promise as a lead compound for antidiabetic drug development. However, as this was an *in-silico* screening, the results are predictive and limited by computational parameters. Therefore, further *in vitro* and *in vivo* studies are required to validate efficacy and safety.

**Keywords:** *Withaferin A, Antidiabetic, In-silico, Molecular Docking, Lead compound.*

## OP 21

### Advancements in Diagnostic and Therapeutic Equity-Review

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**Background:** Despite notable technological progress in the medical field, disparities in access to diagnostics and therapeutics continue to pose persistent global challenges. Underserved populations, particularly those in low- and middle-income countries, face systemic barriers such as limited infrastructure, socioeconomic inequality, and policy inadequacies, which restrict timely access to essential healthcare services. This study explores how innovative technologies and inclusive policy interventions can bridge these healthcare access gaps and ensure equitable diagnostic and therapeutic outcomes for patients with diabetes.

**Methods:** This qualitative literature review explored advancements in diagnostic and therapeutic equity through evidence synthesis. A structured search of PubMed, Scopus, WHO Global Health Observatory, and World Bank Data Catalog (2015–2024) used keywords such as “diagnostic equity,” “therapeutic equity,” and “health technology.” From 247 studies identified, screening involved title and abstract review, full-text assessment, and quality appraisal. Inclusion criteria covered peer-reviewed studies on accessibility, affordability, or equity in diagnostics or therapeutics with proven interventions; exclusions were non-empirical, duplicate, or non-English works. The review emphasized high-burden diseases diabetes, tuberculosis, and cardiovascular diseases. Data extraction followed a standardized matrix, and thematic synthesis identified key trends in health system barriers, technology use, and policy integration.

**Results:** A multifaceted approach combining infrastructure development, health technology adaptation for low-resource contexts, and targeted workforce training may improve diagnostic and therapeutic equity indicators. Emerging findings include Point-of-Care Diagnostics: Evidence indicates that rapid, low-cost tools in underserved regions can facilitate disease detection and reduce treatment delays. Artificial Intelligence in Healthcare: Results show that AI-assisted decision-making may enhance diagnostic accuracy and optimize resources in settings with limited personnel. Mobile Health and Telemedicine: Applications of mobile health technologies and teleconsultations improve patient access, reduce geographic barriers, and support care continuity. Policy and System-Level Interventions: Observations suggest that programs, such as the WHO Essential Diagnostics List and Brazil's universal healthcare system, contribute to more equitable access to diagnostics and treatment. Persistent challenges, including limited digital infrastructure, sociocultural barriers, and funding constraints, highlight the need for further research and implementation strategies.

**Conclusion:** Advancing diagnostic and therapeutic equity requires innovative technologies, robust policies, equitable resource distribution, and long-term community engagement. Integrating these elements through collaborative efforts among policymakers, healthcare professionals, technologists, and local communities can transform the healthcare delivery system. Such integration ensures that advancements in diagnostics and therapeutics contribute to a more inclusive and sustainable global health landscape, where access to quality care becomes a *universal right rather than a privilege*.

**Keywords:** *Diagnostic Equity; Therapeutic Equity; Healthcare Access; Health Policy; Global Health Disparities*

## AI-Driven Community-Based Prediabetes Prediction Integrating Oxidative Stress Biomarkers

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**Background:** Prediabetes affects nearly 374 million adults worldwide, with India's prevalence estimated around 18.2%. Early identification and intervention offer critical opportunities to prevent progression to type 2 diabetes, but conventional screening is often inaccessible in resource-limited communities. To address this gap, an artificial intelligence (AI)–driven prediabetes prediction model tailored to community health settings is being developed.

**Methods:** We recruited 199 adults (18–60 years) from diverse socioeconomic backgrounds in rural and urban Tamil Nadu through local primary-care outreach events. The demographic, anthropometric, and biochemical parameters including fasting glucose, HbA1c, lipid profile, waist circumference, and haemoglobin were collected. DPPH free radical scavenging assay was performed to measure total antioxidant status (TAS).

**Results:** Using these 14 input features, we developed a Pattern Neural Network (PNN) model with 14 input nodes, a 10-node hidden layer, and a sigmoid output node. We compared PNN performance against support vector machines, k-nearest neighbors, and logistic regression classifiers. The PNN achieved 98.3% accuracy, outperforming SVM (96%), KNN (83%), and LR (71%). Feature importance analysis highlighted TAS and waist circumference as the most influential predictors, revealing that 60% of prediabetic participants had reduced TAS levels indicating pervasive oxidative stress in this community. Model interpretability enables community health workers to understand individual risk scores and deliver tailored lifestyle counselling for diet, physical activity, and antioxidant-rich nutrition.

**Conclusion:** This study demonstrates a scalable, equitable approach for population-level prediabetes screening. By incorporating oxidative stress markers, this study provides the first AI model in an Indian cohort to link antioxidant status to prediabetes risk. The PNN model demonstrates excellent accuracy and interpretability, offering a clinically actionable tool for early disease detection and personalized intervention. The community-centered strategy empowers underserved populations with early risk detection and supports disease prevention for all, aligning with global public health goals to reduce chronic disease burden.

**Keywords:** *Prediabetes, Artificial intelligence, Total antioxidant status, Oxidative stress, Primary healthcare screening.*

## Synergistic Role of Seminal Plasma Proteins and Madana Modakaya Constituents in Male Fertility: An Integrative Review.

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**Background:** Male infertility affects 7–12% of men worldwide and accounts for nearly half of infertility cases in couples, making it a major global health concern. Key factors include impaired sperm motility, morphology, and viability. Seminal plasma proteins regulate sperm function, while Ayurvedic formulations such as Madana Modakaya contain bioactive compounds (antioxidants, L-DOPA, saponins) that may enhance reproductive outcomes. This review synthesizes evidence on seminal plasma proteins and Madana Modakaya constituents, highlighting their potential synergistic effects on male reproductive health.

**Methods:** A literature search was performed in PubMed, ScienceDirect, AYUSH databases, and Google Scholar for studies from 2010 to 2025. Keywords included “seminal plasma proteins,” “sperm function,” “Madana Modakaya,” “*Mucuna pruriens*,” “male fertility,” and “synergy.” Inclusion criteria: experimental, clinical, in vitro, in vivo, and ethnopharmacological studies reporting protein or herbal effects on sperm function. Exclusion criteria: non-relevant topics, poor-quality studies, and non-English articles. Data were extracted on study type, organism, interventions, outcomes, and findings, and synthesized thematically and conceptually.

**Results:** Seminal plasma proteins such as PSA, semenogelin I/II, clusterin, zinc alpha-2-glycoprotein 1, DJ-1, and PIP regulate sperm motility, capacitation, acrosome reaction, and membrane stability. Alterations in these proteins are associated with oxidative stress and reduced sperm quality. Madana Modakaya constituents, including *Mucuna pruriens*, *Chlorophytum borivillianum*, *Hygrophila spinosa*, and *Eurycoma longifolia*, enhance spermatogenesis, antioxidant defense, and hormonal balance (increased testosterone and LH, reduced FSH), improving sperm motility, concentration, and morphology. Conceptually, antioxidants protect seminal protein-mediated sperm functions, L-DOPA modulates dopamine pathways to enhance motility, and saponins and alkaloids support hormonal regulation. Urban bioresource cultivation ensures a sustainable and high-quality supply of medicinal herbs, optimizing bioactive compound yield and enabling reproducible biomedical applications. Despite these insights, direct experimental evidence on combined protein-herb synergy is extremely limited, representing a critical research gap for translational studies.

**Conclusion:** Combining seminal plasma proteins with Madana Modakaya phytoconstituents shows conceptual synergistic potential for improving male reproductive health. Future studies should prioritize clinical trials integrating Ayurvedic formulations with molecular assessment of seminal plasma proteins to validate translational applications.

**Keywords:** Male infertility, Madana Modakaya, Seminal plasma proteins, Sperm motility.



## OP 24

### Pathogenic *Vibrio Splendidus* Characterized in Sea Horses in Aquaculture Farm

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**Background:** Seahorse (*Hippocampus kuda*) is a worldwide popular ornamental fish species. However, seahorse aquaculture faces challenges of high larval and juvenile mortality. In Sri Lanka, no significant research has been carried out on seahorse culture, and information on their pathology is scarce. Understanding the causes of larval mortality is therefore crucial for establishing successful seahorse farming protocols. The present study aimed to isolate and identify bacterial pathogens associated with larval mortality in *Hippocampus kuda*, and to confirm the pathogenicity of *Vibrio splendidus* through experimental infection under laboratory conditions.

**Methods:** Healthy 20-day-old *H. kuda* larvae were obtained from Pitipana Aquaculture Development Center and transported to the laboratory in oxygenated bags. Larvae (n=5 per tank, 2 L volume) were adjusted under hatchery-simulated conditions (28‰ salinity, 28 °C, gentle aeration) and fed *Artemia* thrice daily. An immersion challenge was performed by exposing *H. kuda* larvae to *V. splendidus* isolated from diseased *H. kuda*. *V. splendidus* suspension at 1×10<sup>6</sup> CFU/ml was infected, while an uninfected control group was maintained under identical conditions. Survival was monitored daily for 7 days. Dead larvae were sampled and cultured on TCBS agar for pathogen re-isolation to verify Koch's postulates.

**Results:** Exposure to *V. splendidus* resulted in 80% cumulative mortality by day 7, compared with 40% background mortality in the control group. Mortality in the challenged group began on day 3, with a sharp decline in survival from day 5 onward. The pathogen was successfully re-isolated from dead larvae, fulfilling Koch's postulates and confirming its pathogenic role. These findings align with previous reports of *V. splendidus* as a larval pathogen in marine organisms, demonstrating its virulence against *H. kuda* larvae.

**Conclusion:** This study confirms that *V. splendidus* is a primary pathogen of *H. kuda* larvae, capable of causing high mortality under immersion challenge. These findings underscore the importance of pathology studies in developing effective culture protocols and disease management strategies for seahorse aquaculture.

**Keywords:** *Hippocampus kuda*, Immersion Challenge, Sea Horse, Vibriosis, *Vibrio splendidus*

**EDUCATION: INNOVATING HEALTH EDUCATION FOR  
EQUITY AND EXCELLENCE**

## PLENARY - OP 25

### **Emotional Intelligence and How Future Facilitators Should Be Prepared in Education**

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In an era where knowledge transfer is no longer limited to content delivery, the role of facilitators in education and training must evolve. This presentation explores the transformative power of Emotional Intelligence (EI) in shaping effective, empathetic, and adaptive facilitators for the future.

We begin by unpacking the five core dimensions of emotional intelligence self-awareness, self-regulation, motivation, empathy, and social skills and how they intersect with modern pedagogical practices. Through real-world examples and reflections from healthcare education and leadership training, we discuss why EI is not a “soft skill” but rather a foundational competency that determines a facilitator’s ability to engage, inspire, and guide learners.

The session also addresses how future facilitators must be prepared not only with subject knowledge but also with emotional agility, cultural sensitivity, and an ability to foster safe, inclusive learning environments. We will outline a strategic framework for facilitator development at IIHS, where educators are empowered through coaching, reflective practice, and EI-based training to meet the demands of a rapidly changing world.

Ultimately, the presentation calls for a reimagining of facilitation where the mind and the heart work together to develop not just intelligent students, but socially responsible, emotionally resilient future leaders.

Emotional Intelligence (EI) is increasingly recognized as a crucial component of education across all educational levels and cultural contexts. Educators with high EI foster positive teacher-student relationships and classroom climates, leading to greater student engagement and improved academic outcomes

Research evidence shows that EI-focused training can enhance teaching effectiveness and student achievement, underscoring the need to integrate EI development into teacher education and professional training programs.

Future facilitators in every discipline from general schooling to vocational fields like healthcare and business require strong EI to navigate complex interpersonal dynamics and diverse learning contexts. In medical education, for example, incorporating EI training produces more empathetic, resilient healthcare professionals who deliver higher quality care. Likewise, emotionally intelligent leadership in business and technical training settings is linked to better team performance, adaptability, and long-term success. Globally, educational leaders and policymakers are embracing social-emotional learning (SEL) as essential for fostering inclusive, culturally responsive classrooms. By cultivating educators’ EI, we prepare them to become adaptable, compassionate facilitators capable of boosting learning outcomes and nurturing empathetic, culturally aware global citizens.

## PLENARY - OP 26

### **Empowering Nurses for Inclusive Care: Simulation, Emotional Resilience, and Cognitive Integration in Health Professions Education**

**ASSOC. PROF. MARY JEANETTE IGNACIO**

*Undergraduate Programmes Director, Alice Lee Centre for Nursing Studies (NUS Nursing),  
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Nursing lies at the heart of inclusive care, where technical competence must be matched with compassion, resilience, and adaptability. These plenary highlights innovative approaches in health professions education that prepare future nurses not only to serve diverse patient populations but also to sustain their own well-being in increasingly complex healthcare environments.

Simulation-based education has emerged as a cornerstone of transformative pedagogy, creating immersive and authentic scenarios that allow students to practice clinical skills in safe yet realistic settings. Beyond technical development, simulation can be designed as a powerful space for emotional training and stress management, guiding learners to respond effectively under pressure while fostering empathy, self-awareness, and resilience. These experiences equip nurses with the capacity to engage inclusively with patients and families, even in emotionally challenging circumstances.

Another critical dimension is the integration of knowledge across learning contexts. Technology-enhanced learning is advancing the ways students consolidate insights from lectures, case-based tutorials, and laboratory practice. Digital tools, structured debriefings, and reflective exercises support learners to cognitively synthesize knowledge, strengthening decision-making and adaptability in real-world care. Through these processes, students move beyond isolated skill acquisition to develop holistic, patient-centred approaches.

This plenary will present a model of nursing education that prioritises inclusivity through pedagogy, curriculum design, and the intelligent use of technology. By linking simulation with emotional engagement and supporting cognitive integration through digital platforms, educators can empower nurses to care deeply, think critically, and act inclusively. Preparing them in this way not only enhances outcomes for individual patients but also strengthens healthcare systems in responding to the diverse and evolving needs of society.

### **The Impact of Academic Workload and Time Management on Stress Levels among First-Year University Students at a Private Institute in Sri Lanka**

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**Background:** The transition from high school to university may be quite difficult, especially when it comes to adjusting to the increased academic workloads and the need for effective time management. These factors often contribute to elevated stress levels, impacting students' academic performance and overall well-being. Previous studies have shown that heavy academic workload and poor time management skills are key contributing factors for student stress. However, limited research has focused on how these factors affect first-year students in a private institute in Sri Lanka. This study aims to investigate the impact of academic workload and time management on stress levels among first-year university students.

**Method:** A cross-sectional study was conducted. A stratified probability sampling method was used to select a sample of 217 students from a population of 500 based on Morgan's table. Data was collected using a self-administered questionnaire. The analysis of the data was conducted using SPSS (Statistical Package for the Social Science) software version 26.

**Results:** A total of 220 first-year students participated in the study. Descriptive analysis showed that the majority experienced moderate to high levels of academic stress, with many participants reporting difficulty in managing their time and feeling pressured due to academic workload. The Pearson correlation analysis showed a moderate but positive relationship between academic workload and time management ( $r = 0.326$ ,  $p < 0.01$ ), and a positive correlation between academic workload and stress levels ( $r = 0.290$ ,  $p < 0.01$ ). These findings indicate that while students who manage their time effectively may also report higher workloads, they still experience notable levels of stress, which highlights the importance of stress-related factors in the academic setting.

**Conclusion:** The study concluded that academic workload, time management, and stress levels are moderately interrelated among first-year university students. While effective time management can help students cope with academic demands, it does not necessarily reduce stress. These findings emphasize the need for support strategies that combine time management with mental health resources to reduce stress, which will help to promote student well-being.

**Keywords:** *Academic Workload, Time Management, Stress Levels, Mental Health Support*

## OP 28

# A Multi-Contextual Analysis of Intrapersonal Communication and Coping Strategies during Examination Periods among Undergraduate Students in Selected Sri Lankan Universities

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**Background:** Examination periods heighten academic stress, influencing undergraduate psychological well-being and academic performance. Intrapersonal communication- encompassing self-talk, inner dialogue, and emotional regulation- emerges as a crucial but underexplored factor in coping with such stress. Although Sri Lankan studies have documented high test-related anxiety, limited research has examined the interplay between intrapersonal communication, coping strategies, personality traits, and sociolinguistic factors. This study investigates these dynamics among Sinhala, Tamil, and English medium undergraduates from selected Sri Lankan universities.

**Methods:** A quantitative, survey-based approach was adopted. Data were collected from a stratified random sample of 500 undergraduates across state and private universities. Validated tools such as the Depression Anxiety Stress Scales (DASS-21), Self-Talk Scale (STS), Perceived Stress Scale (PSS), and Myers-Briggs Type Indicator (MBTI) were employed, with cultural and linguistic adaptations tested via back-translation and pilot studies. Statistical analyses included descriptive statistics, correlation analysis, and multiple regression modeling to explore relationships between intrapersonal communication, coping strategies, demographic variables, and personality traits.

**Results:** Analysis revealed that 72% of students reported moderate-to-high stress levels during examinations. Positive self-talk was significantly correlated with reduced anxiety ( $r = -0.48, p < 0.01$ ) and better academic performance ( $\beta = 0.32, p < 0.05$ ). Conversely, negative self-talk strongly predicted heightened stress ( $\beta = 0.41, p < 0.01$ ). Coping strategies varied by language medium: Sinhala and Tamil medium students reported higher reliance on peer discussion and religious coping, whereas English medium students engaged more in self-regulatory strategies and cognitive reframing. Gender differences emerged, with female undergraduates displaying higher use of emotional self-talk, while males favored rational self-dialogue. Personality analysis showed that extroverted and intuitive types demonstrated greater resilience, while introverted and sensing types were more vulnerable to stress escalation. The findings underscore the multi-contextual role of intrapersonal communication in stress management. Effective coping was associated not only with positive self-talk but also with cultural and linguistic alignment of strategies. This suggests that psychological resilience during examinations is shaped by both individual personality dimensions and broader socio-cultural factors.

**Conclusion:** This study highlights intrapersonal communication as a key predictor of coping effectiveness during academic stress. By offering culturally sensitive insights, the research informs the design of targeted student counseling programs, stress-management workshops, and higher education policies aimed at enhancing emotional resilience and academic success in Sri Lanka.

**Keywords:** *Intrapersonal Communication, Exam Stress, Coping Strategies, Undergraduate Students, Sri Lanka*

## OP 29

### Factors Affecting the Clinical Evaluation System in Nursing Education in the Western Province of Sri Lanka

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**Background:** The clinical evaluation system in nursing education is essential for assessing student performance, competencies, and skills during practical training. In Sri Lanka, the system has remained largely unchanged for over a decade, raising concerns about its effectiveness. This study aims to examine the factors influencing the clinical evaluation system in nursing education in the Western Province, with a focus on stakeholder perspectives, institutional practices, and methodological approaches.

**Methods:** A convergent mixed-methods design was employed. Data were collected via Google Forms surveys from graduate nursing students, tutors, and ward managers. Focus group discussions were held with the same groups, and in-depth interviews were conducted with nursing school principals. The Kirkpatrick model was applied after validation. Quantitative data were analyzed using SPSS (descriptive statistics, t-tests, ANOVA), while qualitative data underwent thematic analysis.

**Results:** Preliminary findings suggest that stakeholder-related factors, including evaluator bias and inconsistent feedback, significantly affect clinical evaluations. Institutional challenges such as limited resources, lack of standardization, and outdated methods further weaken the process. Methodological issues were noted, particularly in aligning assessments with real-world competencies. The mixed-methods approach highlights both strengths and weaknesses in the current system.

**Conclusion:** The study underscores the need for reforms in the clinical evaluation framework to enhance fairness, standardization, and alignment with professional competencies. Addressing institutional gaps and improving evaluator training can strengthen the system and contribute to better-prepared nursing graduates.

**Keywords:** *Clinical Evaluation, Nursing Education, Competence, Assessment, Sri Lanka*

## OP 30

### The English Language Communicative Challenges and Requirements Faced by Private Hospitals Nurses in the Western Province of Sri Lanka

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**Background:** Effective communication is vital for quality healthcare delivery, and nurses play a key role in connecting patients, families, and healthcare professionals. In Sri Lanka's private hospitals, English is the primary language of professional interaction due to their multicultural patient base and international service standards. However, many nurses face difficulties using English confidently in clinical and administrative settings, leading to miscommunication, reduced patient satisfaction, and professional stress. Although English is taught during nursing education, most programs focus on general proficiency rather than English for Specific Purposes (ESP), leaving nurses unprepared for real clinical demands such as documentation, patient education, and teamwork.

**Methods:** A descriptive cross-sectional study was conducted among 430 nurses employed in private hospitals across Colombo, Gampaha, and Kalutara Districts. Participants were selected through stratified random sampling, and data were collected using a structured, self-administered questionnaire adapted from validated ESP frameworks. Data analysis was performed using SPSS version 26, applying descriptive and inferential statistical tests, including correlation, t-tests, ANOVA, and multiple regression analyses.

**Results:** Out of 419 nurses surveyed, 412 (98.3%) provided valid responses. The tool showed high reliability (Cronbach's  $\alpha = 0.931$ ). About 35.1% rated their English proficiency as average, and 68.5% had received formal training. The main difficulties were nervousness when speaking (27.4%), lack of exposure (25.5%), and limited practice (23.6%). Most nurses (69%) reported frequent use of English, especially for patient interactions and medical instructions. Private hospital nurses used English more often, while government nurses faced more challenges ( $p < 0.05$ ). A significant negative correlation ( $r = -0.395$ ,  $p = 0.000$ ) showed that higher proficiency reduced communication barriers. Listening and speaking were ranked the most essential skills, and nurses preferred practical, context-based learning such as simulations and role plays.

**Conclusion:** The findings indicate that English is viewed as an essential component of nursing practice in Sri Lanka, particularly in ensuring accurate patient communication and maintaining professional standards. The study highlights the urgent need for specialized English for Specific Purposes (ESP) training focused on real workplace communication, supported by institutional initiatives such as simulation-based workshops and continuous professional development programs to enhance nurses' confidence and competence in clinical settings.

**Keywords:** *English language proficiency, Communicative Challenges, Healthcare Communication, English for Specific Purposes (ESP)*



**NUTRITION AND FOOD SCIENCE: NOURISHING  
COMMUNITIES FOR HEALTH EQUITY**

## PLENARY - OP 31

### **Nourishing Communities for Health Equity: Sustainable Food Systems, Nutrition Education, and Prevention in South Asia**

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South Asia, including Sri Lanka, faces a rapidly evolving health and nutrition landscape. An aging population, rising dependency ratios, and the dual burden of undernutrition and diet-related non-communicable diseases pose significant challenges to health equity. Climate change, urbanization, and fragile food systems further limit access to nutritious, affordable, and culturally appropriate foods, disproportionately affecting vulnerable communities.

“Nourishing Communities for Health Equity” emphasizes the role of sustainable food systems, prevention, and wellness in promoting equitable nutrition. Key strategies include reducing food wastage, strengthening supply chain management, enhancing local food production, and ensuring access to healthy diets. Climate-smart agriculture, urban and home gardens, and support for local markets can improve resilience, dietary diversity, and affordability while minimizing environmental impact.

Community-driven solutions remain central. Empowering women, youth, and local organizations to co-design interventions such as school and workplace nutrition programs, caregiver support for older adults, and community nutrition education enhances ownership, cultural relevance, and sustainability. Integrating these interventions with primary health care, social protection systems, and policies focused on prevention ensures a holistic approach to nutrition and wellness.

A critical, yet often overlooked component is the education of health professionals. Nutrition knowledge should be systematically embedded in undergraduate curricula and reinforced throughout professional careers. Well-trained health professionals are essential for delivering evidence-based guidance, promoting healthy lifestyles, and implementing community and clinical nutrition interventions effectively.

Sri Lanka’s experience demonstrates how multisectoral collaboration linking health, agriculture, education, and governance can transform food systems into engines of nutrition security, prevention, and wellness. South Asia has a unique opportunity to cultivate resilient, health-equitable communities where every individual, regardless of age, dependency, or location, can thrive.

## OP 32

### Nutritional status and dietary habits among private university students in Sri Lanka

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**Background:** University students are at risk of developing poor nutritional habits due to rapid lifestyle changes, academic stress, and easy access to processed foods. These behaviors can lead to malnutrition, obesity, and other nutrition-related health problems. The main objective of this study was to assess the nutritional status and dietary habits among private university students in Sri Lanka and to identify the relationship between nutrition knowledge and actual eating practices.

**Method:** A descriptive cross-sectional study was conducted among students from general programs at the International Institute of Health Sciences, Gampaha. Data were collected using a self-administered questionnaire that included a validated Anthropometric Measurements and Food Frequency Questionnaire (FFQ), distributed through Google Forms. The Anthropometric Measurements assessed the nutritional status, and the Food Frequency Questionnaire explored Dietary intake. Descriptive statistical analysis using SPSS version 25 was employed to identify dietary behavior patterns and nutrition awareness levels.

**Results:** A total of 225 students participated in the study, with a response rate of 100%. The majority were females (64.4%) aged between 20 and 25 years. Among the total participants, the percentages of underweight, normal weight, overweight, and obesity were 9.1%, 44.6%, 35.4%, and 10.9%, respectively. The prevalence of overweight and obesity in males was 34.1% and 14.8%, and in females, 35.3% and 7.9%, respectively. Over one third of both male and female students were overweight, while the prevalence of obesity was nearly two times higher in males than in females. Regarding dietary habits, only 17.3% of students consumed fruits and vegetables daily, while 58.3% reported frequent consumption of oily foods, and 46.7% regularly consumed fast food. Furthermore, 52.9% of students consumed sugar-sweetened beverages regularly, indicating that unhealthy dietary habits were common among the study population.

**Conclusion:** The study showed that many students have poor dietary habits and a high prevalence of overweight and obesity, despite having basic nutrition knowledge. Their frequent intake of unhealthy foods and low consumption of fruits and vegetables indicate a clear gap between what they know and how they eat, highlighting the need for stronger nutrition education and healthier lifestyle support in university settings.

**Keywords:** *Nutritional status, Dietary habits, University students, Nutrition awareness*

## OP 33

### Assess Knowledge and Attitudes on Maternal Nutrition among Pregnant Mothers in the MOH Area, Meerigama

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**Background:** Maternal nutrition is a key determinant of pregnancy outcomes and child health, influencing risks of low birth weight, intrauterine growth restriction, and maternal morbidity. Despite national nutritional interventions, gaps in knowledge and attitudes persist in rural Sri Lanka. This study aimed to assess the level of knowledge and attitudes on maternal nutrition among pregnant mothers attending antenatal clinics in the MOH area, Meerigama, and to explore associations with demographic factors such as education.

**Methods:** A descriptive correlational study was conducted among 105 pregnant mothers attending maternal clinics in the Meerigama MOH area. Data were collected using a structured, self-administered questionnaire consisting of demographic data (11 items), knowledge (10 items), and attitudes (5 items). Descriptive statistics and inferential analyses were performed using SPSS version 28 to determine relationships between maternal nutrition knowledge, attitudes, and educational levels.

**Results:** The majority of participants (62.9%) were aged 26–35 years, 98% were married, and 42.9% reported a monthly income between LKR 30,000–45,000. Most respondents (61%) had a normal BMI both before and during pregnancy. However, knowledge of maternal nutrition was inadequate: only 57% correctly identified sources of protein, 49% vitamin A, 45% iron, 38% calcium, and less than 30% could identify correct sources of zinc, folic acid, and iodine. Regression analysis showed that knowledge was strongly related to awareness of iron and vitamin C sources ( $r = 0.855$ ,  $p < 0.01$ ) but was limited for other micronutrients. Attitudinal findings indicated cultural and religious food avoidance among 38% of mothers, and only 41% agreed that vitamin supplements should be taken regularly. The regression model for attitudes had low explanatory power ( $R^2 = 0.244$ ), confirming generally poor maternal attitudes towards nutrition. Analysis of education and knowledge revealed a weak but statistically significant association ( $R^2 = 0.185$ ,  $p < 0.05$ ), suggesting that higher education only modestly improved nutritional knowledge.

**Conclusion:** The study highlights insufficient knowledge and poor attitudes toward maternal nutrition among pregnant mothers in the Meerigama MOH area. Educational interventions and regular workshops at antenatal clinics are recommended to improve awareness, correct misconceptions, and strengthen positive attitudes, thereby reducing risks of malnutrition and adverse pregnancy outcomes.

**Keywords:** *Maternal Nutrition, Pregnant Mothers, Knowledge and Attitudes, Antenatal Care, Sri Lanka*

## OP 34

### Knowledge of Pregnant Mothers Regarding Anemia during Pregnancy and How to Prevent and Correct It Without Complications among Antenatal Mothers at Teaching Hospital Jaffna

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**Background:** Anemia in pregnancy is a major public health concern worldwide, contributing significantly to maternal morbidity, mortality, low birth weight, preterm delivery, and infant mortality. Iron deficiency remains the leading cause, but nutritional deficiencies, infections, and chronic illnesses also play important roles. This study was conducted to assess the prevalence, knowledge, and associated risk factors of anemia among pregnant women attending antenatal clinics at Teaching Hospital Jaffna, Sri Lanka.

**Methods:** A descriptive cross-sectional study was carried out among 425 antenatal mothers selected through random sampling. Data were collected using a structured self-administered questionnaire, dietary recall, clinical assessment, and laboratory investigations of hemoglobin (Hb) levels. Socio-demographic variables, dietary practices, and infection status were analyzed to identify risk factors. Ethical clearance was obtained, and data were analyzed using descriptive and inferential statistics.

**Results:** The prevalence of anemia (Hb < 10 g/dl) among the study population was high, with a significant proportion of mothers presenting with moderate anemia. Risk factor analysis showed that mothers who consumed red meat only once or twice per month had a 2.3-fold higher risk of anemia compared to those who consumed it more frequently. Similarly, women who consumed leafy green vegetables only once or twice a week had significantly lower Hb levels compared to daily consumers. Nutritional status assessed by MUAC (< 23 cm) was strongly associated with anemia, indicating undernutrition as a predictor. Parasitic infections (hookworm and Trichuris), malaria history, and short birth spacing were also identified as contributing factors. Fatigue, pallor, and dizziness were the most common clinical symptoms. Despite high antenatal clinic attendance, only 68% of mothers reported regular compliance with iron and folic acid supplementation, and 47% had received nutritional counseling.

**Conclusion:** Anemia remains a prevalent and serious health concern among antenatal mothers in Jaffna, with dietary habits, infections, and nutritional status being major determinants. Strengthening antenatal education, improving compliance with supplementation, and promoting dietary diversity are essential to reduce maternal and neonatal complications. Community-level interventions, routine screening, and timely treatment must be integrated to achieve sustainable reductions in anemia prevalence.

**Keywords:** *Anemia in Pregnancy, Iron Deficiency, Antenatal Mothers, Risk Factors, Maternal Health, Jaffna*

## OP 35

### Assessment of Street Food Vendors' Awareness and Practice Regarding Cooking Oil Usage in Different Areas of Wattala, Sri Lanka

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**Background:** Street food vending is a growing economic activity in Sri Lanka, providing affordable meals to the public. However, the repeated reuse of cooking oils by vendors poses significant health risks due to the formation of toxic compounds and lipid degradation. Limited awareness and improper disposal of used oils contribute to both public health and environmental concerns.

**Method:** A descriptive cross-sectional study was conducted among 102 street food vendors selected through convenience sampling. Data were collected using a structured questionnaire and analyzed using SPSS software. Descriptive statistics (frequencies, percentages, means, and standard deviations) summarised the data, while inferential tests such as Chi-square, Spearman's rank correlation, and independent t-test were used to examine associations between variables.

**Results:** The majority were 36–45 years (25.49%) and secondary educated (45.10%). Most (52.94%) possessed more than four years' vending experience, and the most common food prepared was deep-fried snacks (73.53%). Most used LPG stoves (82.35%) with pans made from stainless steel (56.86%). Awareness levels were moderate; 68.63% recognized oil degradation through its color, and 96.08% that darkening was the most important visual indicator of oil spoilage. Though 83.33% linked reused oil with cancer and 63.7% with heart disease, only 57.84% were unaware of the ideal frying temperature. Coconut oil was utilized the most (95.10%), with the most critical selection criteria being their affordability (75.49%) and ease of availability (70.59%). Half (50%) re-used oil 1–2 times, with the majority (42.2%) reusing it more than 2–3 times in a day. Approximately 47.1% re-supplemented with fresh oil each day, and disposal was inappropriate, 39.2% threw used oil in regular trash, and 32.4% in the sewer/drain. Only 34.3% were food safety and hygiene trained, while 43.1% confessed no information source for the correct usage of oil.

**Conclusion:** The study revealed that while most vendors are aware of visible indicators of oil deterioration, many continue unsafe reuse practices due to cost and lack of proper disposal systems. Education, experience, and training were key factors influencing knowledge and behavior. Implementing targeted training programs and community-based collection systems for used oil could enhance public health and environmental safety.

**Keywords:** *Street Food Vendors, Cooking Oil Reuse, Awareness, Practices, Health Risks*

## OP 36

### **Assessment of Knowledge, Attitudes, and Practices on Fast Food Consumption among Grade 9 and 10 School Children in Monaragala MOH Area, Sri Lanka**

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**Background:** Fast food consumption has become increasingly common among adolescents, influenced by convenience, taste, marketing strategies, and social trends. Although fast foods are often high in fat, sugar, and calories, their popularity raises concerns about dietary health in younger populations. This study aimed to assess the knowledge, attitudes, and practices (KAP) regarding fast food consumption among Grade 9 and 10 school children in the Monaragala MOH area, Sri Lanka.

**Methods:** A descriptive cross-sectional quantitative study was conducted among 200 students aged 14–15 years, selected using a simple random sampling method. Data were collected through a structured, interviewer-administered questionnaire comprising 26 questions across four sections: demographics, knowledge, attitudes, and practices. The instrument's validity was established through expert review, and reliability was ensured via a pilot study with test-retest. Data were analyzed using descriptive and inferential statistics, including chi-square tests, with a 95% confidence level.

**Results:** Of the 200 respondents, gender and grade distribution were balanced, with diverse ethnic and religious representation. Knowledge levels were mixed: 33.5% reported awareness of a balanced diet, 35% recognized the nutritional value of healthy food, while 41.5% strongly agreed or agreed that fast food negatively affects health. Attitudes reflected varied perspectives, with 41% perceiving fast food consumption as a personal choice and 60% expressing concern about health impacts. Practices indicated frequent fast-food consumption, with 22.5% eating it daily and 52.5% weekly. Emotional factors influenced 60% of students, while 52.5% admitted that social media affected their food choices.

**Conclusion:** The findings reveal high fast food consumption rates among adolescents, coupled with limited nutritional knowledge and susceptibility to external influences such as advertisements and emotions. Educational interventions within schools, stricter regulation of fast-food marketing, and community engagement are essential to promote healthier eating behaviors among school children in Sri Lanka.

**Keywords:** *Fast Food, Knowledge, Attitudes, Practices, Adolescents*

**HEALTH ADMINISTRATION: LEADERSHIP AND POLICY  
FOR UNIVERSAL HEALTH COVERAGE**



## PLENARY - OP 37

### Leadership and Policy for Universal Health Coverage

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Sri Lanka has long been recognized for its strong commitment to equitable healthcare, achieving notable health outcomes despite limited resources. This paper examines the leadership and policy frameworks driving Sri Lanka's progress toward Universal Health Coverage (UHC) and the reforms needed to sustain and expand these achievements. The analysis focuses on how effective governance, intersectoral collaboration, and inclusive policy design can advance health equity across the island's diverse populations.

Sri Lanka's publicly funded health system, grounded in free access to primary care, provides an exemplary model of leadership in health policy. However, evolving demographic patterns, noncommunicable disease burdens, and rural–urban disparities require renewed administrative innovation. This study explores how strategic leadership at national and provincial levels can enhance coordination between central ministries, local authorities, and private-sector actors to strengthen service delivery and financial protection.

Key areas of focus include policy reforms for efficient resource allocation, such as optimizing health financing mechanisms, investing in preventive and community-based care, and leveraging digital health platforms to improve data management and accessibility. The presentation highlights the importance of decentralized governance that empowers regional health offices to tailor interventions to local needs, particularly in underserved rural and estate sectors.

Drawing on lessons from Sri Lanka's historical commitment to universal, free healthcare and its evolving policy landscape, this work argues that achieving full UHC requires transformational leadership rooted in transparency, accountability, and equity. The presentation concludes with a framework for strengthening leadership capacity, institutional coordination, and policy coherence to ensure that Sri Lanka's health system remains resilient, inclusive, and capable of meeting future challenges.

**Keywords:** *Sri Lanka, Universal Health Coverage, Health Leadership, Policy Reform, Health Equity, Resource Allocation, Decentralized Governance.*

## OP 38

### Assessing the Quality of Patient Responsiveness in Hospice Care in Sri Lanka: An Evaluation of Patient-Centered Outcomes- Concept Note

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**Background:** Sri Lanka faces an escalating burden of non-communicable diseases, which account for more than 82% of annual deaths, creating a growing demand for hospice and palliative care services. Although an estimated 60,000–90,000 people require such care each year, only about 10% receive appropriate support. Existing facilities include seven inpatient hospices with approximately 1,200 beds, most of which are located in urban areas. As a result, rural communities experience limited access to end-of-life care, leading to unmanaged symptoms, psychological distress, and unmet emotional and spiritual needs. A critical yet understudied component of hospice care quality is patient responsiveness, defined through domains such as timeliness, empathy, dignity, autonomy, and confidentiality. Despite its essential role in promoting compassionate, patient-centered care, responsiveness has not been systematically examined in the Sri Lankan hospice context.

**Aim:** This study aims to evaluate the quality of patient responsiveness in hospice care in Sri Lanka and explore its relationship with key patient-centered outcomes. The study seeks to understand how patients, caregivers, and staff experience responsiveness; measure responsiveness using an adapted Patient Responsiveness Scale (PRS); examine its association with quality of life and patient satisfaction; develop a culturally appropriate measurement tool; and identify areas requiring improvement to enhance hospice care delivery.

**Proposed Methods:** This study will employ a sequential mixed-methods design. The qualitative phase will involve semi-structured interviews with participants until including patients, caregivers, and hospice staff from five sites across both urban and rural regions data saturation. Themes related to responsiveness will be analyzed using NVivo. Insights will guide cultural adaptation of the PRS. The quantitative phase will survey 200 hospice patients using the adapted PRS, the EQ5D-5L instrument for quality of life, and a validated satisfaction scale. Data will be analyzed using descriptive and multivariable regression methods in SPSS v26 to assess associations between responsiveness and patient-centered outcomes. Ethical approval, informed consent, and measures to protect participant well-being and confidentiality will be ensured.

**Expected Impact:** The study will generate the first culturally relevant instrument for assessing patient responsiveness in Sri Lankan hospices and provide empirical evidence on how responsiveness influences quality of life and satisfaction. The findings will support service improvements, staff training, and national palliative care policy implementation, ultimately strengthening compassionate and dignified end-of-life care.

*Keywords: Hospice care; Patient responsiveness; Palliative care; Quality of life; Patient satisfaction*

## OP 39

### **A Clinical Audit on Evaluating the Service Quality of the Non-Communicable Disease (NCD) Unit at Divisional Hospital Palai, Killinochchi, Sri Lanka**

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**Introduction:** The Non-Communicable Disease (NCD) Unit at Divisional Hospital Palai in Killinochchi District serves a predominantly low-income population, with a high dependency on government healthcare. Persistent complaints regarding delayed services, limited staff availability, inadequate patient guidance, and poor service delivery highlighted the need for a clinical audit. This study aimed to evaluate the service quality of the NCD Unit using the Service Quality Assessment framework and to propose interventions for improvement.

**Methods:** A cross-sectional descriptive study was conducted from November 2022 to February 2023. A total of 363 patients were selected through simple random sampling. Data were collected using a pretested questionnaire based on the Service Quality Assessment framework, which measured tangibility, assurance, reliability, responsiveness, and empathy. Descriptive analysis was performed using SPSS version 22, and the reliability of the tool was confirmed with Cronbach's alpha.

**Results:** The audit revealed gaps in all five dimensions of service quality compared to established standards. Patient dissatisfaction was most evident in responsiveness (41% dissatisfied) and reliability (39% dissatisfied), followed by tangibility (38% dissatisfied), empathy (41% dissatisfied), and assurance (37% dissatisfied). Deficiencies were particularly noted in infrastructure, waiting times, staff communication, and continuity of care. These findings suggest the need for systemic improvements, including staff training, better resource allocation, and a stronger patient-centered approach.

**Conclusion:** The audit identified critical shortcomings in service quality at the NCD Unit of Divisional Hospital Palai. Strengthening infrastructure, enhancing professional training, streamlining service delivery, and fostering empathy-driven care are essential to improving patient satisfaction and outcomes. Follow-up audits are recommended to evaluate the effectiveness of proposed interventions.

**Keywords:** *Service Quality, Non-Communicable Disease (NCD), Clinical Audit, Primary Healthcare, Divisional Hospital Palai*

## OP 40

### Impact of Illegible Prescriptions on Dispensing Practice among Pharmacies in Wattala, Gampaha District

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**Background:** A prescription is a written or electronically transmitted order of medicines that has been prescribed by a relevant medical officer to a specific patient with a specific diagnosis. Dispensing correct medicines is essential in today's healthcare systems to guarantee patient safety and to provide the best possible treatment results. Although there are other problems when it comes to medical procedures, unclear or illegible prescriptions remain a serious concern while dispensing medicines. Wrong medicine can lead to serious health issues among patients, such as the development of MROs, allergic conditions, and if it worsens, it can be fatal. Not only do the patients, healthcare providers, and organizations face huge problems while handling these kinds of prescriptions. This study focuses on the impact on pharmacies in Wattala, Sri Lanka, due to illegible prescriptions, the problems that arise, how such situations are dealt with, and suggestions for improving handwritten prescriptions by pharmacists.

**Methodology:** A small-scale, qualitative phenomenological study design was carried out among pharmacies in Wattala town, Gampaha district, with participants being pharmacists who work in these pharmacies. Inclusion criteria included pharmacists with more than 1 year of work experience, willingness to participate, both male and female, licensed pharmacists, and pharmacies in Wattala. Convenience sampling was used to select participants based on accessibility and willingness. Qualitative data were collected through in-depth interviews with selected participants who provided consent. The interviews explored participants' experiences, emotions, coping strategies, impact on work, perceptions of reasons for poorly written prescriptions, and suggestions for reducing dispensing errors. Data was recorded via a voice recorder and kept private. Qualitative data will undergo thematic and content analysis. Microsoft Excel 2019 was used for thematic analysis.

**Results:** The analysis of pharmacist experiences revealed several key themes related to dispensing practices and the challenges posed by unclear prescriptions. Dispensing Practice, the main theme encompassed challenges directly impacting the dispensing process, which further broke down into a few sub-themes: Delayed Dispensing (DD), Pharmacist Workload (PW), Patient Frustration & Misconceptions (PFM), and Prescription Misinterpretation (PM).

**Conclusion:** Based on the results, the medication dispensing process is prone to inefficiencies, errors, and strains in the pharmacist-patient relationship. Delayed Dispensing (DD) illustrates the difficulties pharmacists face in clarifying prescriptions. Pharmacist Workload (PW) indicates pharmacists are overworked, which hinders their ability to verify prescriptions safely. Patient Frustration & Misconceptions (PFM) reveal a disconnect where patients may blame dispensing issues on pharmacists rather than prescriber handwriting. Prescription Misinterpretation (PM) is the most concerning finding, directly linking illegibility to medication errors with potential for serious harm, as demonstrated by the diclofenac/domperidone example. These interconnected challenges underscore the need for improvements.

**Keywords:** *Illegible Prescriptions, Dispensing Errors, Pharmacists, Patient Safety, Sri Lanka*

**DIGITAL HEALTH AND EDUCATION: STRENGTHENING  
HEALTH SYSTEMS THROUGH DIGITAL INNOVATION**

## OP 41

### **The Influence of Celebrity Body Figures Posted in Social Media on Abnormal Eating Patterns among Young Adults in a Private Higher Education Institute in Western Province, Sri Lanka**

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**Background:** The main objective of this study is to provide insights into the influence of celebrity body figures posted on social media on abnormal eating patterns among young adults in private higher education institutions in the Western Province of Sri Lanka. The research will examine which gender is more affected by exposure to celebrity body figure posts on social media and which platforms influence young people the most. In addition, the study will investigate whether there is a relationship between body image and eating disorders. Ultimately, the research aims to encourage young people to think more critically before following the message conveyed by celebrity posts on social media.

**Methods:** Data collection methods include surveys using a questionnaire with the students at the private Universities. A self-administered questionnaire will be used to collect necessary information from the students. SPSS version 21.0 software will be used to analyze the data.

**Results:** A total of 352 participants completed the survey. 62.5% of the 352 participants responded that after seeing celebrity posts on social media sites like Instagram and TikTok, they felt under pressure to change their perception of their bodies. Of them, 47.8% acknowledged altering their eating patterns, with 16.5% having binge-eating patterns and 31.3% undergoing restrictive dieting. Notably, 56.0% of female respondents reported feeling dissatisfied with their bodies, whereas 38.7% of male participants stated the same. A significant ( $p < 0.05$ ) relationship between the frequency of social media exposure and the occurrence of abnormal eating behaviors was confirmed by statistical analysis utilizing chi-square testing.

**Conclusion:** This study emphasizes the impact of celebrity body images on social media in shaping abnormal eating behaviors and body dissatisfaction among young adults. The findings will help raise awareness and guide strategies to promote positive body image and healthy eating habits in Sri Lanka.

**Keywords:** *Celebrity Body Figures, Social Media, Abnormal Eating Patterns, Young Adults*

## OP 42

### Relationship between Screen Time and Sleep Quality among Undergraduate Students at a Private University

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**Background:** In the digital age, smartphones and other electronic devices have become an integral part of student's academic and social lives. However, excessive screen exposure has been linked to poor sleep patterns due to the disruption of circadian rhythm and melatonin suppression. Sleep quality, which reflects the duration, depth, and restfulness of sleep, plays a crucial role in maintaining optimal cognitive function, academic performance, and mental health. The study aimed to examine the relationship between screen time and sleep quality among undergraduate students at a private university.

**Method:** A descriptive cross-sectional study was conducted among 217 undergraduate students aged 18–25 years. Participants were selected using simple random sampling. Data were collected using a self-administered questionnaire that included socio-demographic details, screen-time habits, and the Pittsburgh Sleep Quality Index (PSQI). Data were analyzed using descriptive and inferential statistics through SPSS version 26. Correlation and Chi-square tests were used to assess the relationship between screen time and sleep quality, with a significance level set at  $p < 0.05$ .

**Results:** Among the 217 participants, 72.3% were females and 27.7% were males. The mean daily screen time was 6.3 hours (SD = 1.5), with most students spending prolonged hours on social media and entertainment platforms. A majority (79.1%) reported using devices within one hour before bedtime, while 68.7% kept their phones beside them during sleep. More than half (61.5%) experienced difficulty initiating sleep after extended screen use, often describing delayed sleep onset and restless nights. The mean PSQI global score was 7.3 (SD = 2.2), indicating overall poor sleep quality. A significant moderate positive correlation ( $r = 0.46$ ,  $p < 0.001$ ) was found between total daily screen time and PSQI scores, confirming that higher screen exposure was associated with poorer sleep quality among students.

**Conclusion:** The study revealed a significant relationship between prolonged screen time and reduced sleep quality among undergraduate students. Most participants exhibited poor sleep, particularly those engaged in late-night device use. Awareness programs and behavioral strategies promoting screen-time management and good sleep hygiene are recommended to improve student well-being and academic outcomes.

**Keywords:** *Screen time, Sleep quality, Undergraduate students, Pittsburgh Sleep Quality Index*

## **PHYSIOTHERAPY: EXPANDING ACCESS TO REHABILITATION AND MOBILITY HEALTH**



## PLENARY - OP 43

### **Expanding Access to Rehabilitation and Mobility Health: Inclusive Strategies for Equitable Physiotherapy Delivery**

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Access to rehabilitation and mobility health services remains uneven across populations, with significant disparities affecting individuals in remote, low-resource, and underserved communities. As physiotherapy leaders, we are uniquely positioned to drive systemic change through innovative, inclusive models of care that extend beyond traditional clinical environments. This presentation explores three strategic approaches: mobile clinics, tele-rehabilitation, and community-based programs that collectively enhance accessibility, effectiveness, and equity in physiotherapy service delivery.

Mobile clinics provide a flexible, outreach-based solution to deliver rehabilitative care directly to communities with limited access to healthcare infrastructure. These clinics support continuity of care, post-operative recovery, and chronic condition management, while reducing logistical and financial barriers.

Tele-rehabilitation harnesses digital technologies to offer remote assessment, education, and guided therapy. This modality is particularly impactful for individuals with mobility limitations or those residing in geographically isolated areas. It enables scalable, patient-centred care while maintaining clinical oversight and therapeutic engagement.

Community-based programs embed rehabilitation services within local networks, leveraging partnerships with community health workers, peer support groups, and culturally relevant organisations. These programs promote health literacy, empower self-management, and foster long-term adherence to mobility-enhancing practices.

Together, these strategies represent a paradigm shift toward inclusive physiotherapy, one that prioritises adaptability, person-centred care, and social accountability. By embracing innovation and community engagement, physiotherapy professionals can ensure that rehabilitation and mobility health are accessible to all, regardless of geography, ability, or socioeconomic status.

## OP 44

### Psychometric Evaluation of the Sinhala Version of the Falls Efficacy Scale-International in Older Adults with Chronic Obstructive Pulmonary Disease

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**Background:** Fear of falling (FoF) is common among older adults with chronic obstructive pulmonary disease (COPD) and is associated with activity restriction. The Falls Efficacy Scale-International (FES-I) is widely used to assess FoF; however, a validated Sinhala version was not available for this population. Therefore, our study aimed to evaluate the psychometric properties of the Sinhala version of FES-I in older adults with COPD.

**Methods:** A cross-sectional study was conducted at the Central Chest Clinic and National Hospital for Respiratory Diseases. Participants fluent in Sinhala were recruited using a purposive sampling. The Sinhala translated version of the FES-I was used to assess FoF. Internal consistency and construct validity were examined with Cronbach's alpha and exploratory factor analysis, respectively, and by correlating FES-I scores with Timed Up and Go (TUG) performance and 6-minute walk distance (6MWD). Receiver operating characteristic (ROC) analysis was performed to determine sensitivity, specificity, and an optimal cut-off score.

**Results:** A total of 229 participants completed the Sinhala FES-I. Among them, 46.7% identified as being at risk of falling with a TUG test time  $\geq 12$  seconds. Participants aged  $>70$  years had FES-I scores ( $37.2 \pm 8.75$ ) compared to those aged 66-70 years ( $30.82 \pm 7.8$ ) and 60-65 years ( $28.92 \pm 7.6$ ) ( $p=0.001$ ). Internal consistency of the Sinhala FES-I was excellent, with a Cronbach's alpha of 0.889. Exploratory factor analysis revealed four factors with eigenvalues ranging from 1.121 to 6.030. The four-factor model explained 70% of the total variance, indicating a multidimensional structure with strong internal consistency across factors: outdoor mobility and community participation ( $\alpha=0.873$ ), personal care ( $\alpha=0.819$ ), household activities ( $\alpha=0.71$ ), and challenging mobility tasks ( $\alpha=0.767$ ). The FES-I score showed a negative correlation with 6MWD ( $r=-0.560$ ,  $p=0.001$ ) and a positive correlation with TUG ( $r=0.481$ ,  $p=0.001$ ). The area under the curve for the Sinhala FES-I was 0.735. The cut-off point was 31.5 for differentiating between those at risk of falling and those not at risk, with a sensitivity of 80% and specificity of 60%.

**Conclusion:** The FES-I Sinhala language version was excellent in terms of reliability and validity in fear of falling in older adults with COPD. It demonstrated a high internal consistency, high construct validity, and fair predictive validity of fall risk. As such, the Sinhala FES-I is safe to be used as a culturally fit instrument to measure fear of falling among the Sinhalese elderly with COPD.

**Keywords:** COPD, Fear of Fall, Psychometric Properties, FES-I

## OP 45

### Knowledge and Attitude on Physical Exercises and Their Long-Term Health Benefits among Healthcare Students in Western Province, Sri Lanka.

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**Background:** Physical activity, dating back to the Bronze Age, has been proven to improve physical strength, endurance, bone mineral density, and neuro-musculoskeletal fitness, promoting a healthy lifestyle and avoiding medical conditions. Knowledge of physical exercises and attitudes significantly influences behavior, with goals, values, beliefs, and perceptions of control moderated by these factors.

**Methods:** Participants in this quantitative descriptive cross-sectional study were chosen using random selection. Google questionnaires were used to obtain the data. The questionnaire was divided into three sections, each with a five-point Likert scale for response choices. The questionnaire was constructed based on the questions used by scholars in past studies to collect primary data, which were used to analyze and understand the established relationship among the selected variables. Data was gathered and analyzed using the SPSS statistical software.

**Results:** A total of 258 participants were responded. Most were female (63.6%), aged 16–20 years (79.5%), and Sinhala (80.6%). The mean knowledge score on physical exercises was 27 (out of 33), with no significant gender difference ( $p = 0.294$ ). Significant differences were observed by ethnicity ( $p = 0.030$ ), religion ( $p = 0.032$ ), and year of study ( $p = 0.01$ ), with second-year students scoring highest. The main motivations for exercise were fitness (89.1%), weight control (85.7%), and appearance (65.5%), while only 3.5% exercised for fun. Reported barriers included lack of interest (79.1%), workload (51.9%), and low energy (50.8%). Females had higher engagement scores ( $p = 0.03$ ), and age group differences were also significant ( $p < 0.01$ ). Ethnicity significantly influenced both engagement ( $p < 0.01$ ) and barriers ( $p = 0.016$ ).

**Conclusion:** The study reveals that socio-demographic factors, knowledge, attitudes, and barriers impact young adults' physical therapy exercises. Despite awareness of exercise's health benefits, challenges like heavy workloads, lack of time, and low energy hinder participation. Addressing these issues through education, practical solutions, and institutional support can boost physical activity participation and promote sustainable health behaviors.

**Keywords:** *Physical Exercises, Attitude, Knowledge, Health Benefits*

## Integrated Pharmacological and Physiotherapeutic Approaches in the Management of Chronic Low Back Pain

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**Background:** Chronic low back pain (CLBP) remains one of the leading causes of disability worldwide, often requiring both pharmacological and physiotherapeutic management. Integrating these two domains through interprofessional collaboration, particularly between physiotherapists and pharmacists, may enhance pain outcomes and minimize medication-related risks. To map and synthesize existing evidence on integrated pharmacological and physiotherapeutic approaches in the management of CLBP, emphasizing collaborative care models and treatment effectiveness.

**Methods:** A scoping review was conducted following PRISMA-ScR guidelines. Electronic databases (PubMed, Scopus, Google Scholar) were searched for English-language studies published from 2015 to 2024 using the terms “chronic low back pain,” “pharmacological therapy,” “physiotherapy,” and “multidisciplinary management.” Thirty-one studies met the inclusion criteria, including randomized controlled trials, systematic reviews, cohort studies, and clinical guidelines. Data were charted for study design, interventions, and outcomes related to pain, function, and medication use.

**Results:** Thirty-one studies met the inclusion criteria, including 12 RCTs, 6 cohort studies, 5 systematic reviews, 4 qualitative studies, and 4 clinical guidelines. Exercise-based physiotherapy reduced pain by 25–35% and improved function by 20–30%. Combined pharmacological and physiotherapy approaches produced superior outcomes, showing 35–45% pain reduction and up to 40% improvement in disability scores. Multidisciplinary programs involving physiotherapists, pharmacists, and physicians achieved the best results in long-term pain control and medication optimization. Short-term NSAID and duloxetine use showed moderate benefits, while pharmacist-led medication reviews enhanced adherence by 15–25% and reduced opioid use by 20–30%. Adverse effects were lowest in integrated models emphasizing non-pharmacological care.

**Conclusion:** Integrated pharmacological and physiotherapeutic management of CLBP results in superior pain control, enhanced function, and safer medication use compared with isolated approaches. Exercise-centered physiotherapy supported by rational, pharmacist-monitored pharmacotherapy represents the optimal evidence-based model. Future research should evaluate cost-effectiveness and develop structured collaboration frameworks in primary and rehabilitation settings.

**Keywords:** *chronic low back pain, physiotherapy, pharmacotherapy, multidisciplinary care, pharmacist collaboration, pain management*

## OP 47

### Role of Pharmacological Adjuncts in Enhancing Physiotherapy Outcomes for Stroke Rehabilitation

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**Background:** Stroke rehabilitation depends heavily on physiotherapy to restore movement and function, yet outcomes are often limited by spasticity, fatigue, and reduced neuroplasticity. Pharmacological adjuncts are increasingly explored to enhance recovery when combined with physiotherapy. This scoping review aimed to identify and summarize evidence on the role of pharmacological agents in improving physiotherapy outcomes for post-stroke rehabilitation.

**Methods:** A comprehensive search of PubMed, Scopus, CINAHL, and Cochrane databases was conducted for studies published between 2000 and 2024. Eligible studies included randomized controlled trials, systematic reviews, and meta-analyses evaluating the combined use of pharmacological agents and physiotherapy among adult stroke survivors.

**Results:** Thirty-two studies met the inclusion criteria. Antidepressants improved mood and therapy engagement but showed limited motor recovery effects. Dopaminergic agents such as levodopa enhanced short-term motor learning without long-term functional gain. Psychostimulants, including methylphenidate and modafinil, improved attention, fatigue, and participation. Antispastic agents like botulinum toxin A and baclofen consistently reduced spasticity and enhanced mobility training outcomes. Combined timing of pharmacological administration with physiotherapy sessions showed additive benefits in several trials.

**Conclusion:** Pharmacological adjuncts can enhance physiotherapy outcomes in stroke rehabilitation by improving muscle tone, attention, and therapy participation. Botulinum toxin A, baclofen, and modafinil demonstrated the most consistent benefits. Further research is needed to determine optimal combinations and timing for maximizing rehabilitation outcomes.

**Keywords:** *Stroke, physiotherapy, pharmacological adjuncts, rehabilitation, spasticity, functional recovery.*

## **REFLECTION**

## OP 48

### Reflection on Performing a Nasogastric Feeding Procedure

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**Description:** This reflection focuses on an incident that occurred during my clinical placement in Ward 04 of a reputed hospital. An eighty-one-year-old female patient had been admitted with fever, chills, and generalized weakness and was being fed via a nasogastric (NG) tube every two hours. At 12:00 p.m., under the supervision of the in-charge nurse, I was assigned to perform the NG feeding procedure. After preparing the required equipment, I verified the tube placement by injecting air and auscultating over the stomach, as per protocol. I then administered 25 mL of water, 200 mL of blended chicken soup, and another 25 mL of water, ensuring the feed was given safely and comfortably. The procedure was completed successfully, and the nurse commended my performance.

**Feelings:** Before the procedure, I felt both excited and slightly nervous, as it was one of my first independent clinical tasks in the ward. During the event, I remained focused and cautious, ensuring every step was correctly followed. I was determined to make the patient comfortable and to maintain confidence throughout the process. Afterward, I felt proud and relieved that the procedure went smoothly, and the positive feedback from the nurse further boosted my confidence.

**Evaluation:** This experience strengthened my technical and interpersonal skills. I was able to apply theoretical knowledge in a clinical setting, communicate effectively with the patient and bystander, and receive constructive feedback from the supervising nurse. Although I initially felt anxious, maintaining composure and following evidence-based steps helped ensure patient safety and successful completion. This experience highlighted the importance of preparation, teamwork, and communication in nursing practice.

**Analysis:** The procedure aligned with recommended nursing standards emphasizing verification of NG tube placement, appropriate feeding volume, and patient positioning in a semi-Fowler's position to prevent aspiration. Flushing the tube before and after feeding ensured patency and safety. Effective communication and patient consent reflected adherence to ethical principles such as beneficence and non-maleficence. This analysis emphasizes that attention to detail and evidence-based practice are essential in preventing complications and promoting patient comfort.

**Conclusion:** This reflection provided valuable learning on performing NG feeding confidently and safely. It reinforced my understanding of evidence-based procedures and strengthened my ability to communicate empathetically with patients.

**Action Plan:** In future practice, I plan to gain further supervised experience, review updated feeding guidelines, and consistently verify equipment and patient readiness before procedures. I will continue developing communication and time-management skills to ensure safe, effective, and patient-centered care.

## OP 49

### Reflection on Assisting in Chest Drainage for a Patient with Pneumothorax

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**Description:** During my clinical placement at a private hospital in Narahenpita, I assisted in managing a 54-year-old female patient of Russian nationality who was admitted to the Intensive Care Unit (ICU) with multiple rib fractures, pneumothorax, and hemothorax following a traumatic injury. The procedure involved performing suctioning to clear respiratory secretions and assisting the medical team in the insertion of an intercostal (IC) chest tube to drain air and blood from the pleural cavity. The ICU doctor performed the insertion while I maintained sterility, prepared equipment, and facilitated communication with the patient through a translation application to obtain informed consent. The procedure was successfully completed with the patient stabilized, sterility maintained, and the healthcare team commended for effective teamwork and communication.

**Feelings:** Before the procedure, I felt nervous and slightly overwhelmed due to my limited ICU experience and the urgency of the situation. I was particularly concerned about maintaining sterility and ensuring that the patient fully understood the procedure despite the language barrier. During the procedure, I was anxious but focused on performing my tasks correctly and following the guidance of the senior nurse and doctor. Their calm and supportive manner reassured me and helped me remain composed. After the procedure, I felt relieved, proud, and more confident in my clinical skills. Reflecting on this experience now, I recognize how important preparation, teamwork, and communication are in managing critical care situations effectively.

**Evaluation:** The procedure was successful, with sterility maintained, consent obtained, and strong teamwork displayed. I assisted effectively by preparing equipment, ensuring aseptic technique, and using a translation app to communicate. Guidance from the senior nurse and doctor was valuable. However, initial hesitation and delayed communication due to the lack of an interpreter highlighted the need for improved confidence, communication readiness, and ICU experience.

**Analysis:** This experience highlighted the importance of addressing language barriers, maintaining sterility, and fostering teamwork in critical care. Language barriers can hinder informed consent and patient safety (Al Shamsi et al., 2020), while strict adherence to sterile technique is essential for infection prevention (WHO, 2018). My hesitation aligned with Benner's (1984) Novice to Expert model, illustrating how limited exposure affects confidence and decision-making. The collaborative teamwork between the doctor, nurse, and ICU staff contributed significantly to a positive patient outcome, supporting evidence that interprofessional collaboration improves healthcare delivery (Reeves et al., 2017). The root causes identified were the language barrier, limited experience, and systemic lack of interpreter support.

**Conclusion:** Reflecting on this incident has deepened my understanding of the vital role that preparation, clear communication, and composure play in emergency nursing. I learned that teamwork directly influences patient safety and outcomes, and that continuous reflection fosters professional growth and ethical practice (Beauchamp & Childress, 2019). This experience strengthened my commitment to ongoing learning and self-improvement to provide safe and compassionate care in high-pressure clinical environments.

**Action Plan:** To handle similar situations better in the future, I plan to improve my communication, technical, and teamwork skills. This includes learning basic medical terms in foreign languages, using interpreters when needed, and practicing key clinical procedures like suctioning and chest drainage preparation. I will also attend workshops on ethics, communication, and informed consent to enhance decision-making. Gaining more ICU experience under supervision and maintaining regular reflective practice will help me identify areas for improvement. Finally, I aim to promote interprofessional collaboration to provide high-quality, patient-centered care.



## OP 50

### Reflection on Administering a Nasogastric Feed to a Patient

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**Description:** During my clinical placement in the medical ward of a private hospital in Colombo, I was assigned to care for a patient who was on nasogastric (NG) feeding. I had previously administered the 10.00 a.m. feed and was preparing for the 12.00 p.m. feed. After ensuring the feed had arrived from the kitchen, I explained the procedure to the patient, positioned them in Fowler's position, and prepared the necessary equipment. As I was about to begin, I realized that I had forgotten to check the NG tube placement. I immediately paused, retrieved a stethoscope, and confirmed the tube placement using the air insufflation method (20 ml of air while auscultating the stomach for a "whoosh" sound). Once verified, I proceeded to administer the feed safely and documented the procedure in the input-output chart. The feed was well-tolerated, and the patient remained stable.

**Feelings:** Initially, I felt confident since I had successfully performed the procedure earlier. However, upon realizing I had forgotten to check the tube placement, I felt embarrassed, anxious, and concerned about patient safety. After correcting the mistake and completing the procedure properly, I felt relieved and proud. Reflecting on the experience motivated me to be more systematic, careful, and thorough in future nursing tasks.

**Evaluation:** The procedure was ultimately successful and completed safely. I demonstrated accountability by recognizing my error before causing harm, ensuring the patient's safety through proper verification, and maintaining effective communication and documentation. The experience strengthened my ability to stay calm and act responsibly under pressure. However, I recognized that my lapse in checking the tube placement initially could have resulted in patient harm, violating the ethical principle of non-maleficence the obligation to "do no harm." This experience highlighted the importance of following standard protocols and maintaining full attention to detail during routine procedures.

**Analysis:** Not verifying NG tube placement before feeding can cause serious complications such as aspiration or pneumonia. The mistake occurred due to overconfidence and skipping proper steps. Reflection, as outlined in Gibbs' Reflective Cycle, helps identify and learn from such errors. Nurses have a legal and ethical duty to ensure patient safety, guided by the principle of non-maleficence. Research also supports that consistent adherence to feeding protocols reduces complications. The root causes were inattention, distraction, and unsafe shortcuts, but timely correction prevented harm and reinforced the importance of vigilance and self-awareness in nursing practice.

**Conclusion:** This experience underscored the need for strict adherence to nasogastric feeding protocols to ensure patient safety and quality care. Verifying NG tube placement, maintaining proper positioning, clear communication, and accurate documentation are vital for safe practice. Reflection on the incident deepened my awareness of how minor errors can lead to serious consequences and highlighted the role of reflective practice in fostering professional growth, clinical competence, and ethical nursing care.

**Action Plan:** To improve future practice, I will take a systematic and attentive approach to all clinical tasks. I will verify NG tube placement before every feed, document each step accurately, and seek guidance from senior nurses. Engaging in simulation training and patient safety workshops will help strengthen my competence. Using nursing checklists will ensure adherence to protocols and accountability. Through continuous reflection, I aim to prevent errors, build confidence, and provide safe, high-quality patient care.

## OP 51

### Reflection on the Misdiagnosis of a Posterior Cruciate Ligament Injury during Clinical Placement

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**Description:** During my clinical placement at a private hospital in Colombo, I was able to assist a 26-year-old male patient in examining right knee pain after a sports-related ligament injury. I performed Valgus, Varus, and Lachman tests, initially diagnosing an anterior cruciate ligament (ACL) injury. However, upon reviewing the MRI and consulting with the physiotherapist, it was confirmed as a posterior cruciate ligament (PCL) tear. The physiotherapist in charge explained how a PCL tear can create a false positive Lachman test, emphasising the need to exclude PCL injuries before ACL testing.

**Feelings:** Initially, I was confident and enthusiastic about applying my knowledge; however, during the assessment, I became nervous and uncertain about my approach. Once I discovered the diagnostic error, I felt guilty and regretful for not following the proper testing sequence, but I valued the opportunity as a priceless learning experience.

**Evaluation:** The positive result was the gain of practical experience and positive feedback that enhanced my clinical reasoning. However, my lack of procedural knowledge and failure to consolidate imaging results resulted in an incorrect diagnosis. The incident highlighted the need for better preparation and proper knowledge regarding the diagnostic guidelines.

**Analysis:** This case demonstrated how misdiagnosis can occur when procedural steps are overlooked. The PCL tear can lead to a false-positive Lachman test via posterior tibial translation. Understanding the importance of appropriate sequencing and correlating both clinical and imaging data is the key to preventing these kinds of diagnostic errors.

**Conclusion:** The incident highlighted the importance of clinical judgment, proper sequencing of tests and integration of imaging to arrive at a correct diagnosis. It reinforced the need for continuous learning and attention to detail in maintaining diagnostic accuracy and professional competence.

**Action Plan:** I plan to review patient history and images before exams, expand knowledge of knee biomechanics, and prioritize exclusion of PCL injury before ACL testing. I will also collaborate with supervisors and engage in continuous skill development to improve diagnostic precision.

## OP 52

### Reflection on Performing Catheter Care for a Patient with Urinary Retention

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**Description:** During my clinical placement in the Emergency Treatment Unit (ETU) on the 28th of March 2025, I was assigned to perform catheter care for a male patient, Mr. X, who had urinary retention due to benign prostatic hyperplasia (BPH). He had an indwelling Foley catheter to aid bladder drainage. While cleaning, I mistakenly wiped the catheter tubing towards the urethral opening instead of away from it, violating aseptic guidelines. After realizing the error, I immediately informed my supervising nurse. She appreciated my honesty, checked the patient for irritation, and reminded me of the correct technique. The event was documented, and I was advised to review aseptic procedures before my next attempt.

**Feelings:** Before the procedure, I felt anxious yet determined to perform well. The busy ETU environment made me tense, and I struggled to stay calm. During the procedure, my focus wavered slightly, though I believed I was following the right steps. When I realized the mistake, I felt guilty and worried about possible consequences for the patient. However, my supervisor's calm reaction and supportive feedback eased my anxiety and encouraged me to learn from the experience. I realized that such incidents, while uncomfortable, are valuable for personal and professional development.

**Evaluation:** Although I made a technical error, the situation had positive aspects. I showed honesty by reporting it immediately and reflected on how stress influenced my actions. My supervisor turned the incident into a learning opportunity rather than criticism, which strengthened my confidence. However, my nervousness and environmental distractions affected my concentration. This reminded me that even minor lapses in aseptic technique can endanger patient safety and that maintaining composure during procedures is essential for accurate performance.

**Analysis:** This experience highlighted the link between mental readiness and correct technique. I knew the proper method but failed to apply it under pressure. It emphasized the importance of infection control in preventing catheter-associated urinary tract infections (CAUTIs). The root cause of my mistake was anxiety and inexperience, not lack of knowledge. Supportive supervision and open communication transformed the event into a meaningful learning experience, reinforcing the need for mindfulness, practice, and calmness in clinical procedures.

**Conclusion:** This incident taught me that confidence and focus are as vital as technical knowledge. Taking a moment to prepare mentally or seeking brief guidance could have prevented the mistake. I also understood that slowing down and working methodically ensures better patient outcomes than rushing in a busy setting. The experience increased my awareness of accountability and the importance of reflection for continual improvement.

**Action Plan:** In future procedures, I will pause to mentally review each step before beginning. I will perform catheter care calmly and seek supervision if uncertain. Regular practice in the skills lab and revisiting infection control protocols will help me maintain accuracy and confidence. I will also continue reflecting after each clinical experience to identify strengths and areas for improvement, ensuring patient safety and professional growth.

## OP 53

### Reflecting on Successful Sputum Collection in COPD Management

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**Description:** During placement at a leading hospital in the Colombo district, I managed a middle-aged patient with Chronic Obstructive Pulmonary Disease (COPD) who had difficulty clearing secretions and a persistent productive cough. Following the doctor's recommendation, I assisted in collecting a sputum sample. I explained the procedure and used chest physiotherapy techniques, including percussion, vibrations, and active breathing cycles. The secretions were successfully mobilized, allowing sample collection under sterile conditions, and the patient expressed relief, reporting easier breathing after the session.

**Feelings:** I felt initial Nervousness, followed by being determined. The successful outcome led to feelings of being Relieved, Accomplished, Confident, and Reassured.

**Evaluation:** Positive aspects included thorough preparation (reviewing history and consulting the supervisor) and effective chest physiotherapy leading to patient relief. Negative aspects were initial nervousness delaying the procedure, limited hands-on experience impacting confidence, and the need for more practical training opportunities.

**Analysis:** I utilized chest physiotherapy methods based on evidence showing they effectively mobilize COPD secretions. The initial nervousness was linked to a lack of hands-on experience, a known challenge for students transitioning to independent practice. Root-cause analysis suggests that structured simulation-based training could improve preparation, and real-time feedback from supervisors can boost confidence.

**Conclusion:** The experience emphasized the importance of preparation, clear communication, and evidence-based practice. It highlighted the need for hands-on practice to build confidence and the necessity of managing emotions to remain composed under pressure. The reflection reinforced continuous personal and professional growth.

**Action Plan:** Actions include participating in simulation-based training sessions for sputum collection and chest physiotherapy to enhance practical skills. I will build confidence by engaging in role-playing to practice explaining procedures, and review relevant protocols thoroughly before procedures to manage nervousness. I will also seek assistance when needed.

## OP 54

### Reflection on Lack of Attention Toward Clinical Experience

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**Description:** Clinical experience is a vital component of nursing education, as it bridges theoretical knowledge and practical competence. It enables nursing students to develop essential clinical skills, professional values, and confidence in real healthcare settings. However, I have observed a concerning lack of commitment among some nursing students during their clinical placements. Many students arrive late to the clinical area, show disinterest in patient care activities, and sometimes attempt to avoid assigned nursing procedures. Instead, they tend to engage in personal conversations or unrelated activities during clinical hours. This lack of engagement not only hinders their learning but also negatively influences the overall clinical environment.

**Feelings:** I feel deeply saddened and disappointed when witnessing such behavior, as it raises serious concerns about the future of the nursing profession. I am frustrated by the idea that these students may graduate without developing the required clinical competence to provide safe and effective patient care. I also feel worried about how this issue might affect teamwork, patient outcomes, and the reputation of nursing as a respected and trusted profession.

**Evaluation:** Clinical practice plays a crucial role in shaping competent and compassionate nurses. Without sufficient clinical exposure, students may lack confidence and practical skills, leading to substandard patient care and potential safety risks. Effective clinical engagement allows students to understand the complexity of healthcare delivery, develop empathy, and strengthen their critical thinking. Unfortunately, inadequate participation diminishes these opportunities, thereby impacting not only the students themselves but also the healthcare system as a whole.

**Analysis:** The reasons behind this problem appear multifaceted. Many students enter the nursing profession not out of passion, but as a result of limited career choices or financial necessity. This lack of intrinsic motivation leads to disinterest in clinical learning. Additionally, insufficient supervision, heavy workloads, and limited recognition of students' efforts may further reduce enthusiasm. Some students only realize the importance of clinical competence after graduation, when faced with real-world responsibilities. Therefore, nursing educators must foster a supportive learning environment that emphasizes the value and purpose of clinical practice.

**Conclusion:** This experience has highlighted the urgent need for more structured interventions to improve students' attitudes and participation in clinical training. As an educator or mentor, I must identify barriers, motivate students, and implement strategies to enhance clinical engagement. Encouraging reflective practice, accountability, and mentorship can transform this challenge into an opportunity for improvement.

**Action Plan:** The plan aims to improve nursing students' clinical performance through motivation, mentorship, accountability, and practical learning. Strategies include motivational workshops, a mentorship program with experienced nurses, attendance monitoring, and recognition for active participation. Practical learning will be expanded through simulations, interprofessional activities, and diverse clinical rotations. Reflective practice will be encouraged via journals and group discussions, while institutional support will be sought through curriculum reviews and collaboration with hospitals. Overall, the goal is to build a culture of professional responsibility, enthusiasm, and clinical excellence among nursing students.

## OP 55

### Reflecting on Equipment Error and Communication Challenges in TENS Therapy

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**Description:** During a scheduled placement at a well-known hospital in the Colombo district, the student was assigned to apply TENS therapy to a 55-year-old foreign female patient with lower back pain and limited English proficiency. Before treatment, the student explained the procedure using simple English and gestures. While adjusting the TENS machine settings, the student accidentally increased the intensity instead of lowering it, causing the patient immediate discomfort and visible unease. The error was quickly corrected, and the patient completed the session successfully with the husband's assistance, reporting relief from pain.

**Feelings:** The experience spanned feelings from initial Confident and Certain states to subsequent feelings of being Embarrassed, Anxious, Concerned, and Guilty during and after the error. The final result led to feeling Grateful and Relieved.

**Evaluation:** Positively, the student successfully used simple language and gestures despite the language barrier. The intensity was quickly adjusted, and the patient's husband cooperated to enhance communication. Negatively, overconfidence led to the error, causing unnecessary patient anxiety. Failure to double-check the apparatus demonstrated unattentive and irresponsible behavior.

**Analysis:** The error primarily stemmed from inattentiveness and failing to double-check the apparatus. Double-checking medical equipment is vital for patient safety and maintaining high care standards. The incident also highlighted that language barriers can cause miscommunication and compromised care quality. Although TENS can provide short-term pain relief, effective treatment requires clear communication with patients and the student's ability to stay calm and composed during errors.

**Conclusion:** The experience underscored the importance of clear communication, attentiveness, and composure in patient care, especially when language barriers exist. The quick correction showcased adaptability, but the core takeaway emphasizes the necessity of thorough equipment checks and preparation to ensure treatment quality and avoid complications.

**Action Plan:** Key actions include creating a pre-treatment checklist to double-check equipment settings. To improve communication, the student plans to learn basic phrases and use visual aids. Furthermore, efforts will be made to stay calm under pressure through practice techniques, and the student will seek weekly supervision and mentorship.

## OP 56

### Reflection on Assisting with and Health Education on Newborn Bathing in a Maternal Ward

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**Description:** During my third day of clinical placement in the maternal ward of a prominent private hospital in Wattala, I assisted a midwife in bathing and dressing a newborn baby girl of a first-time mother. I prepared all necessary equipment, including bathing basins, lukewarm water, baby clothes, and accessories, and assisted throughout the bathing process. I also provided the mother with health education on water preparation, temperature checks, safe bathing techniques, and proper dressing and wrapping to prevent hypothermia. The midwife commended my careful handling of the baby and the clarity of the guidance provided to the mother, which enhanced my practical skills and confidence in newborn care.

**Feelings:** At the start of the procedure, I felt excited yet slightly nervous due to the responsibility of handling a newborn. During the baby bath, my confidence grew as I applied knowledge from previous observations, remaining focused, calm, and attentive to hygiene and safety while assisting and providing health education to the mother. Afterward, I felt satisfied and appreciated, with positive feedback from the midwife reinforcing my confidence and interest in maternal and newborn care.

**Evaluation:** The experience was largely positive, as I independently prepared the equipment for the baby bath, assisted the midwife effectively, handled the newborn with confidence, and provided clear, accurate instructions to the mother. Appreciation from the midwife affirmed my skills and capability. The only challenge was initial nervousness due to handling a newborn for the first time, which was quickly overcome through careful practice and guidance.

**Analysis:** Research highlights key practices in safe newborn bathing, including using lukewarm water, immediately wrapping the baby to maintain body temperature and a sense of security, and keeping the body wrapped while washing the head to preserve warmth. Patting the umbilical cord dry after the bath is essential to prevent infection. Additionally, providing health education to the mother or family during the procedure is crucial to promote understanding and safe care practices at home.

**Conclusion:** This experience provided a valuable learning opportunity, reinforcing my ability to deliver effective neonatal care in a hospital setting. I recognized the importance of integrating theoretical knowledge, practical skills, and adaptability, along with preparation, confidence, communication, respectful care, and evidence-based practice. Accurate observations and adherence to guidelines were essential, and feedback from the midwife boosted my confidence, confirming my professional and clinical development.

**Action Plan:** In the future, I plan to further develop practical neonatal care skills by applying knowledge from previous experiences and seeking opportunities for hands-on practice in the hospital. I will continue providing health education to patients and family members whenever possible and aim to become more familiar with the hospital environment by actively engaging in a variety of practical procedures and clinical situations.

## OP 57

### Reflection on the Administration of a Suppository for Pain Relief in an Emergency Setting

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**Description:** During my clinical placement at the Emergency Treatment Unit (ETU) of a private hospital in Wattala, I was asked to administer a suppository to a 41-year-old female patient who presented with severe right-sided abdominal and back pain. It was my first experience performing this procedure on a real patient. Under the supervision of a senior nurse, I introduced myself, explained the procedure, and obtained consent. Although I initially made a mistake with patient positioning, the senior nurse guided me to correct it, and I completed the procedure successfully while maintaining the patient's comfort, privacy, and dignity.

**Feelings:** Before the procedure, I felt both excited and anxious since it was my first time performing such an intimate nursing task. During the process, I felt nervous about positioning and technique but gradually gained confidence with the support of my supervisor. Afterward, I felt proud of successfully completing the procedure, though slightly embarrassed about my initial hesitation. Reflecting on this, I realized that such experiences are essential for developing confidence and professionalism in sensitive clinical situations.

**Evaluation:** The procedure was completed safely and professionally, and the patient experienced no complications. I maintained communication and ensured patient privacy throughout. The main challenge was my lack of confidence at the start, which caused incorrect positioning. However, with supervision, I corrected my error and completed the task. The experience highlighted the importance of practice, emotional control, and proper communication to ensure safe and dignified patient care.

**Analysis:** This experience demonstrated the need to translate theoretical knowledge into effective clinical practice. I recognized that fear and lack of hands-on exposure often contribute to hesitation in performing intimate procedures. Mentorship and supervision are essential in such learning stages, helping to build both confidence and competence. Through guided reflection and repeated practice, nursing students can develop professionalism, empathy, and ethical standards necessary for patient-centered care.

**Conclusion:** Through this reflection, I learned that preparation, respect, and clear communication are key to successfully handling intimate procedures. I understood that mistakes made during learning are opportunities for growth when handled responsibly and reflectively. The experience strengthened my confidence and taught me the importance of maintaining patient dignity and following ethical nursing standards at all times.

**Action Plan:** To improve my clinical competence, I plan to engage in more supervised practice sessions and observe senior nurses performing similar procedures. I will actively seek feedback, attend communication and ethics training, and reflect after each experience. Additionally, I aim to build confidence through simulation exercises and maintain consistent professionalism in all patient interactions.



## **POSTER PRESENTATION**

## Readiness for Adoption of Nursing Informatics among Clinical Nursing Professionals in Public Sector Hospitals in Sri Lanka: Characterization and Measurement: A Review

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**Background:** Nursing Informatics (NI) is a specialized field integrating nursing science, information science, and computer science to manage, process, and communicate data, information, and knowledge in nursing practice. Emerging in the mid-20th century alongside Healthcare Information Systems, NI has evolved globally to support evidence-based practice, streamline clinical workflows, and improve patient Care. As healthcare systems increasingly rely on digital technologies, assessing nurses' readiness for NI adoption is essential to align practice with digital transformation initiatives.

**Methods:** This literature-based concept paper investigates readiness for NI adoption among clinical nurses in Sri Lanka's public hospitals. It addresses three objectives: (1) identify key dimensions required for NI adoption; (2) inform the development and validation of a readiness assessment tool; and (3) explore adoption trends and barriers globally and locally. A PRISMA-guided review was conducted using PubMed, ScienceDirect, and Google Scholar with search terms including "nursing informatics," "readiness," "adoption," and "Sri Lanka."

**Results:** Three key dimensions essential for NI adoption were identified: knowledge of informatics principles, attitudes toward technology integration, and skills in clinical application. Widely used international frameworks and tools include the Technology Acceptance Model (TAM), Nursing Informatics Competency Assessment Tool (NICAT), and Self-Assessment of Nursing Informatics Competencies (SANIC). Globally, NI adoption is well-established in countries such as the United States, Canada, and Australia, supported by formal training, national eHealth strategies, and integration into nursing education. In contrast, Sri Lanka's public health sector shows minimal adoption, with paper-based documentation still prevalent. Empirical evidence on nurses' readiness is limited, and no locally validated tools exist. Adoption is further hindered by individual, institutional, and infrastructural barriers, including limited training, lack of organizational support, and insufficient technological resources.

**Conclusion:** There is a critical gap in understanding NI adoption among nurses in Sri Lanka's public hospitals. A context-specific readiness assessment tool is needed to guide NI integration strategies and support digital transformation in nursing practice.

**Keywords:** *Nursing Informatics, Adoption, Readiness, Sri Lanka, Public Sector Nurses, Digital Health, Assessment Tool*

## PP 02

### Evaluating Self-Care Management Practices in Type 2 Diabetic Patients at District General Hospital Vavuniya

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**Background:** A serious public health problem is the fast-rising prevalence of Type 2 Diabetes Mellitus (T2DM) in the Vavuniya District and throughout the world. This chronic, lifelong illness adversely affects patients' general well-being. Effective self-care management is crucial for achieving optimal health outcomes. Increased health literacy greatly improves self-care behaviors, which are essential for preventing complications and enhancing the quality of life for people with type 2 diabetes.

**Problem Statement:** Many people with type 2 Diabetes Mellitus (T2DM) have poor self-care, such as irregular glucose monitoring, unhealthy diet, missed medications, and little exercise. This causes poor glucose control and raises the risk of serious complications. It lowers quality of life, increases healthcare costs, and adds strain to families and healthcare systems. Without good self-care, T2DM patients face higher illness, death rates, and financial burdens.

**Objectives:** To evaluate the self-care management practices of patients with T2DM who visit the diabetic clinic at District General Hospital, Vavuniya. The assessment will concentrate treatment-centered approach, which frequently overlooks the significance of self-care and leads to a higher risk of complications.

**Research questions:** How well do people with type 2 diabetes mellitus adhere to self-care practices, such as blood glucose monitoring, dietary management, physical activity, foot care, stress management techniques, and ongoing medical follow-up? How do sociodemographic factors affect adherence? Furthermore, what obstacles do patients think stand in the way of properly engaging in self-care?

**Methodology:** This quantitative descriptive cross-sectional study involved 200 patients with type 2 diabetes mellitus who were seen at DGH Vavuniya's diabetic and endocrine clinics. The validated Summary of Diabetes Self-Care Activities (SDSCA) tool was used to gather information about patients' self-care management strategies. The study sought to determine the participants' awareness and obstacles to diabetic self-care management, as well as to measure adherence levels and identify affecting sociodemographic characteristics.

**Significance of the Study:** Globally, type 2 diabetes mellitus (T2DM) affects around 537 million people and is predicted to increase significantly in the coming years (IDF, 2023). The District General Hospital Vavuniya serves a diverse population that faces obstacles such as limited access to resources, socioeconomic challenges, and inadequate health literacy. Finding gaps in self-care habits and advocating for efficient diabetes treatment techniques to enhance patient outcomes in this area are important goals of this study.

**Expected Outcomes (Optional):** The study is expected to identify the level of adherence to self-care practices among T2DM patients and the common barriers affecting their management. Improved self-care behaviors are anticipated to enhance clinical outcomes, as well as physical and mental well-being. Furthermore, the research will evaluate the impact of health education activities and highlight their significant role in promoting effective diabetes self-management at DGH Vavuniya.

**Keywords:** *Self-care, Type 2 Diabetes Mellitus, Public Health Problem*

### PP 03

## **Investigation of Cultural Competence among Registered Nurses at the National Hospital Sri Lanka: with a View to Enhance Healthcare Quality in Sri Lanka.**

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**Background:** Cultural competence is a fundamental aspect of quality healthcare delivery, enabling nurses to provide equitable, respectful, and patient-centred care to individuals from diverse cultural and linguistic backgrounds. Nurses encounter patients with varying cultural beliefs and health practices daily in hospitals in Sri Lanka. However, there is limited evidence on the actual level of cultural competence among registered nurses and the factors influencing their practice in local clinical settings.

**Problem Statement:** Despite the multicultural composition of Sri Lanka's patient population, cultural competence has not been systematically assessed among nurses in Sri Lanka. A lack of contextual understanding of cultures may lead to cultural misunderstandings, reduced patient satisfaction, and disparities in healthcare outcomes. Therefore, assessing cultural competence and identifying influencing factors are essential to guide education, policy, and patient's outcome improvements.

**Objectives:** This study aims to investigate the level of cultural competence among registered nurses at the NHSL and to explore their perceptions and experiences in delivering culturally sensitive care.

**Research questions:** This study aims to determine the cultural competence of registered nurses at the National Hospital of Sri Lanka (NHSL). It explores the overall level of cultural competence and examines how personal, sociodemographic, educational, and organizational factors are associated with it. The study also seeks to understand nurses' perceptions and experiences of cultural competence in clinical practice and to identify their perceived educational needs for cultural competence development.

**Methodology:** A sequential explanatory mixed-methods design will be employed. In the quantitative phase, data will be collected from a representative sample of registered nurses using a validated cultural competence questionnaire. Statistical analyses will identify relationships between competence levels and influencing factors. In the qualitative phase, in-depth interviews will be conducted to explore nurses' lived experiences, perceptions, and contextual barriers to culturally competent care. Thematic analysis will be applied to the qualitative data to complement and explain quantitative findings.

**Significance of the Study:** The study will provide empirical evidence on the current state of cultural competence among Sri Lankan nurses and highlight critical areas for professional development. Findings will inform curriculum revisions, in-service training, and institutional policies aimed at strengthening culturally responsive nursing care. Ultimately, this research seeks to enhance healthcare quality and patient satisfaction within multicultural hospital settings.

**Expected Outcomes (Optional):** The study is expected to reveal variations in cultural competence levels among nurses and identify modifiable factors that can be targeted through training and organizational support. Recommendations will contribute to developing a national framework for culturally competent nursing practice in Sri Lanka.

**Keywords:** *Cultural competence, Registered nurses, Mixed-method, Health care quality, Sri Lanka,*

## PP 04

### Assessment of Factors Contributing to Prenatal Stress among Pregnant Women in Sri Lanka: A Sequential Exploratory Mixed-Methods Study

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**Background:** Prenatal stress negatively impacts maternal and infant health worldwide, and in Sri Lanka, despite advanced maternal healthcare, psychosocial aspects are often overlooked. Although antenatal care is widely available, prenatal stress screening, especially in rural areas, is inadequate. Key research gaps include a poor understanding of cultural stressors among varied populations, a lack of culturally appropriate screening tools, and insufficient evidence connecting psychosocial factors to pregnancy outcomes in Sri Lanka's distinct socio-economic context.

**Problem Statement:** Despite Sri Lanka's strong maternal healthcare system and near-universal antenatal coverage, the psychosocial aspects of maternal care are significantly overlooked. Prenatal stress affects many pregnant women, especially in rural areas, and there is a lack of routine psychosocial screening and culturally tailored mental health interventions. This is further hindered by inadequate awareness among healthcare workers, cultural stigma, and poor integration between maternal and mental health services. Current research focuses predominantly on physical health, ignoring the complex factors influencing prenatal stress. As a result, early identification and management of prenatal stress are insufficient, jeopardizing maternal and infant health. This study aims to address these gaps by examining determinants of prenatal stress and advocating for culturally sensitive psychosocial screening in Sri Lanka's antenatal care.

**Objectives:** The research aims to explore prenatal stress determinants among Sri Lankan pregnant women through a sequential exploratory mixed-methods approach. Specific objectives include examining lived experiences and cultural beliefs regarding stress, identifying psychological and socioeconomic factors, assessing stress and coping levels using adapted instruments, determining statistical relationships between stress and its determinants, and developing recommendations for integrating psychosocial support into the national maternal health program.

**Research Questions or Hypotheses:** What are the key cultural, psychological, socioeconomic, and relational determinants influencing prenatal stress among pregnant women in Sri Lanka? Hypothesis: Prenatal stress levels are significantly associated with social support, coping strategies, and family dynamics within Sri Lankan cultural contexts.

**Methods:** A sequential exploratory mixed-methods design was employed. Phase I was qualitative interviews among pregnant women to examine stress experience and culture. Phase II was a quantitative survey using validated tools like the Perceived Stress Scale and Multidimensional Scale of Perceived Social Support among a representative sample from the urban, rural, and estate areas.

**Significance of the Study:** This novel, culturally contextual research will fill critical gaps by providing evidence to integrate psychosocial screening into Sri Lanka's maternal health services. It contributes globally by offering a model combining qualitative and quantitative methods rooted in Pearlin's Stress Process and Bronfenbrenner's Ecological Systems theories. The findings will promote a holistic biopsychosocial approach, enhance maternal mental health outcomes, and inform policy aligned with Sustainable Development Goals.

**Expected Outcomes:** Identify causes of prenatal stress; recommend improved maternal mental health.

**Keywords:** *prenatal stress, maternal mental health, mixed-methods, social support, Sri Lanka*

## PP 05

### The Impact of Social Media on the HRQOL of Adults in Gampaha District, Sri Lanka

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**Background:** Social media use significantly affects adults' health-related quality of life (HRQoL), which includes physical, psychological, social, and environmental well-being. Although adults are major users, most research focuses on youth. Excessive use may harm HRQoL through social comparison and unhealthy behaviors, but some studies show positive effects like improved social connection. These mixed findings suggest that impacts vary by platform, usage, and individual factors. Since adults face unique stressors such as work and family pressures, more research is needed to understand these effects and guide public health strategies.

**Methods:** A descriptive cross-sectional study was carried out with 207 early adults who were chosen at random from different Gampaha district institutions. In order to gather data, the researchers created a pre-tested, self-administered questionnaire based on the body of current literature. The data were analyzed using descriptive and inferential statistical techniques using SPSS software (Version 27). The appropriate ethics committee granted ethical clearance.

**Results:** Data Source A sample of 207 relatively young, unmarried adults (20-26 years) completed surveys that showed a mixed picture of the effect of social media. Those reporting positive gain (60%) said that yoga improved their quality of life and created social support, but this was outpowered by the number of negative effects. Key findings show a high level of psychological and physical adversity - over 80% came across disturbing content, +60% experienced social comparison leading to anxiety, and over 70% encountered health misinformation. > Additionally, 60-70% experienced sleep disturbance and decreased physical activity from late-night use. The presented findings confirm that for this population, perceived benefits are paired with significant risks to psychological well-being, producing a nuanced association characterized by how positive outcomes are frequently compromised by negative emotional and behavioral responses.

**Conclusion:** This study shows that social media has both positive and negative effects on adults' health-related quality of life, especially among young adults. While it fosters social connection and support for some, excessive use can harm mental and physical health. The mixed experiences highlight the complex nature of social media use. Therefore, instead of a single public health approach, targeted interventions like digital literacy programs, mindful platform design, and misinformation control are needed. Future research should include more adult groups to better understand these relationships.

**Keywords:** *Social Media Use, Health-Related Quality of Life (HRQoL), Adult Well-being, Digital Well-being, Online Platforms*

## Work-Life Balance among Working Nurses in a Private Healthcare Institute in the Gampaha District

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**Background:** Work-life balance is a critical aspect of nursing students' well-being, as it directly influences their academic performance, physical and mental health, and the quality of patient care they provide during clinical training. Nursing students often face demanding academic schedules, clinical placements, and personal responsibilities, which make it challenging to maintain equilibrium between professional and personal life. The imbalance that arises from heavy workloads, irregular shifts, and emotional strain can lead to increased levels of stress, fatigue, and burnout. Moreover, the pressure to meet academic expectations while adapting to the healthcare environment can negatively affect students' motivation, relationships, and overall satisfaction with their training. Ensuring a healthy work-life balance is therefore essential to promote resilience, enhance learning outcomes, and prepare nursing students for the professional demands of the healthcare field.

**Methods:** A descriptive cross-sectional study was conducted among 426 nursing students at the International Institute of Health Sciences. Data were collected using a structured self-administered questionnaire developed from existing work-life balance and job satisfaction scales. The responses were analyzed using SPSS version 26, with descriptive statistics applied to summarize findings.

**Results:** The majority of respondents were between 26–35 years (45.1%), predominantly female (82.2%), and mostly single (53.3%). Educationally, most were BSc nursing students (67.4%), and the largest job category was staff nurses (58.9%). Overall, participants reported moderate levels of work-life balance ( $M = 3.30$ ,  $SD = 0.87$ ). Workplace support scored highest ( $M = 3.76$ ), while workload ( $M = 3.74$ ), financial stress ( $M = 3.57$ ), and lack of personal time ( $M = 2.84$ ) were identified as the main challenges. Emotional exhaustion ( $M = 3.58$ ) and stress spilling into personal life ( $M = 3.61$ ) were also common, reflecting the emotional toll of nursing work.

**Conclusion:** The study highlights that nursing students face considerable work-life imbalance due to workload, financial pressures, and stress, although workplace support provided partial relief. Organizational strategies such as flexible scheduling, counseling services, and stress management programs are urgently needed to improve balance and sustain quality nursing care.

**Keywords:** *Work-life Balance, Nursing Students, Stress, Burnout, Sri Lanka*

## PP 07

### Level of Test Anxiety among Healthcare Students at a Private Healthcare University in Gampaha District

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**Background:** Test anxiety is a common psychological challenge that affects students' performance, confidence, and mental health. Healthcare students are particularly vulnerable due to the demanding academic workload, frequent evaluations, and high expectations. This study aimed to assess the level of test anxiety among healthcare students at a private healthcare university in the Gampaha District, Sri Lanka, and to identify the factors contributing to it.

**Methods:** A cross-sectional descriptive study was conducted with 294 randomly selected students from nursing, physiotherapy, and biomedical science programs. Data were collected through a self-administered questionnaire, incorporating demographic details and the standardized Test Anxiety Inventory (TAI). Quantitative data were analyzed using SPSS version 26 with descriptive statistics, t-tests, ANOVA, and correlations to explore patterns and associations.

**Results:** This study assessed its prevalence and severity among 294 students (physiotherapy, nursing, biomedical science) at a private healthcare university in Gampaha District using a 30-item Test Anxiety Inventory. Most participants were female (62.9%), aged 22–24 (48%), and in their third year. Anxiety scores (31–120) mostly clustered around 60–90. Common cognitive symptoms included worry about failure (51.4%), concern over others' reactions (51.4%), and self-doubt (57.8%), while physiological signs included rapid heartbeat (49.7%) and hand tremors (41.5%). The field of study showed a significant link with anxiety ( $\chi^2$   $p=0.026$ ); age, gender, and year did not ( $p>0.05$ ). Test anxiety was prevalent, highlighting the need for stress management, mentoring, and supportive assessments.

**Conclusion:** The study highlights the urgent need for targeted interventions, including stress management programs, counseling services, and student-centered teaching and evaluation methods. Addressing these challenges will not only improve academic performance but also strengthen the emotional resilience and professional readiness of healthcare graduates.

**Keywords:** *Test Anxiety, Healthcare Students, Academic Stress, Private University, Sri Lanka*



## PP 08

### Risk Factors of Sleep Paralysis among University Students

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**Background:** A study of Wrobel-Knybel done in 2022 shows that sleep paralysis, which affects 28.3% of the student population during their lifestyle, is a transitional dissociative state associated with the REM (rapid eye movement) sleep phase. The main reason for the sleep paralysis in the students is not yet clearly clarified. When considering some influencing factors that affect sleep paralysis in students, mainly are intensification of anxiety symptoms, a tendency to worry, the presence of PTSD symptoms, and behavioral factors such as consumption of psychoactive substances. Some consumption of psychoactive substances are caffeine, alcohol, and nicotine. Sleep deprivation and poor sleep hygiene

**Methodology:** This study employed a cross-sectional design involving 50 university students who completed a self-administered questionnaire assessing sleep paralysis (SP) prevalence, risk factors, and awareness. Validated instruments, including the Sleep Paralysis Experience and Phenomenology Questionnaire (SP-EPQ), were adapted to evaluate SP episodes, associated symptoms, and lifestyle habits. Data were analyzed using SPSS 26, with descriptive statistics (frequencies, percentages) and chi-square tests to explore relationships between variables like sleep habits, stress, and SP occurrence. Ethical approval was obtained, and informed consent ensured participant confidentiality.

**Results:** The study revealed that 34% of participants experienced SP, with episodes linked to sleep deprivation ( $p < 0.01$ ), irregular sleep schedules ( $\chi^2 = 6.88$ ), and anxiety symptoms (OR = 1.92). STEM students demonstrated higher SP awareness (64%) than humanities peers (44.4%,  $p < 0.05$ ). Hallucinations (68%) and intense fear (92%) commonly accompanied episodes. Lifestyle factors, such as late caffeine consumption (OR = 1.8) and sedentary behavior ( $\chi^2 = 5.92$ ), significantly influenced SP risk.

**Conclusion:** SP is prevalent among university students and significantly impacts sleep quality and academic well-being. Key modifiable risk factors include poor sleep hygiene, stress, and stimulant use. The study underscores the need for university-led sleep health programs, mental health support, and awareness campaigns to address SP's psychological and academic consequences. Future research should explore longitudinal trends and targeted interventions.

**Keywords:** *Sleep Paralysis, University Students, Risk Factors, Sleep Quality*

## PP 09

### Knowledge and Attitudes toward Basic Life Support among Nursing Students at Private Higher Education Centers in Sri Lanka

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**Background:** Basic Life Support (BLS) is a critical emergency procedure that maintains airway, breathing, and circulation in life-threatening situations such as cardiac arrest, respiratory failure, or drowning. Early and effective BLS improves survival rates significantly. Despite its importance, research on BLS knowledge and attitudes among nursing students in Sri Lanka, particularly in private higher education centers, is limited. This study aimed to assess the level of knowledge and attitudes toward BLS among undergraduate nursing students in a selected private institute in Sri Lanka.

**Methods:** A descriptive cross-sectional study was conducted among 149 undergraduate nursing students at the International Institute of Health Sciences, Gampaha District, using a convenience sampling method. Data were collected through a pre-tested, self-administered questionnaire consisting of demographic information, knowledge-based questions, and attitude-related items. Descriptive statistics and Chi-square tests were used for data analysis in SPSS version 26. The reliability of the questionnaire was confirmed with Cronbach's alpha ( $\alpha = 0.78$ ). Ethical approval was obtained from the institutional review committee.

**Results:** Among participants, 55.2% were female and 57.9% were second-year students. Overall, 75.9% correctly identified checking for response and ensuring safety as the first step of BLS, while 68.1% knew the correct compression-to-breath ratio (30:2). However, only 54.5% correctly identified the recommended compression rate (100-120 per minute), and 51.7% identified the correct compression depth (about 5 cm). Most students (69.0%) recognized that BLS training is important for all healthcare students, and 69.7% expressed willingness to attend additional workshops. Although third-year students demonstrated higher knowledge and confidence levels, misconceptions persisted regarding AED use and post-shock actions.

**Conclusion:** The study found that nursing students possessed moderate knowledge and generally positive attitudes toward BLS, though specific knowledge gaps remain. Strengthening practical and simulation-based BLS training, regular refresher sessions, and curriculum integration are recommended to enhance students' confidence and emergency response skills.

**Keywords:** *Basic Life Support, Nursing Students, Knowledge, Attitudes, Sri Lanka, Emergency Care, Curriculum*

## PP 10

### **Prevalence of Musculoskeletal Disorders (MSD) among Staff at a Selected Private Healthcare Institute in Gampaha District, Sri Lanka**

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**Background:** Musculoskeletal disorders (MSDs) are common work-related health issues globally, particularly among office workers exposed to prolonged static postures, repetitive tasks, and inadequate ergonomic practices. Despite global evidence, research on MSD prevalence in Sri Lanka's office-based academic settings remains limited. This study assesses the prevalence of musculoskeletal disorders among office workers at the International Institute of Health Sciences (IIHS), and to identify individual, occupational, and ergonomic risk factors contributing to their development.

**Methodology:** A descriptive cross-sectional study was conducted among approximately 132 office staff members at IIHS, Welisara. Data was collected using a self-administered online questionnaire adapted from the validated Nordic Musculoskeletal Questionnaire (NMQ), alongside Likert-scale items on ergonomic and occupational factors. Descriptive statistics summarize the prevalence and distribution, while Pearson's correlation explores associations between sociodemographic, ergonomic, and work-related variables with MSD Symptoms.

**Results:** The study provided prevalence data on musculoskeletal disorders (MSDs) among IIHS office staff, identified the most affected body regions, and highlighted key risk factors including age, gender, BMI, duration of employment, daily working hours, prolonged sitting, and workstation ergonomics. Among participants who reported neck pain in the past 12 months ( $n = 67$ , 65.7%), a large proportion indicated that their workstation was not adjustable to their comfort, whereas those without neck pain ( $n = 35$ , 34.3%) were more likely to report having adjustable workstations. A statistically significant association was observed between workstation adjustability and neck pain ( $\chi^2 = 45.22$ ,  $p < 0.001$ ).

**Conclusion:** Findings generate context-specific evidence to implement ergonomic interventions, awareness programs, and institutional health policies aimed at reducing MSD prevalence and improving occupational health in Sri Lanka's office environments.

**Keywords:** *Musculoskeletal Disorders, Office Workers, Ergonomics, Occupational Health, Prevalence, Sri Lanka*

## Knowledge of Rheumatoid Arthritis among Undergraduate Nursing and Physiotherapy Students in a Private University, Sri Lanka

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**Background:** Rheumatoid arthritis (RA) is a chronic autoimmune disease that causes progressive joint inflammation, deformity, and disability, significantly impacting quality of life. Despite its clinical importance, knowledge of RA among healthcare students in Sri Lanka remains poorly documented. This study aimed to assess the level of knowledge regarding RA among undergraduate nursing and physiotherapy students in a selected private university in Sri Lanka.

**Methods:** A descriptive cross-sectional study was conducted among 190 undergraduate nursing and physiotherapy students who are in 2<sup>nd</sup> and 3<sup>rd</sup> years of Undergraduate levels. Using a systematically selected sample. Data were collected via a pre-tested, self-administered questionnaire covering knowledge of symptoms, diagnosis, treatment, and risk factors of RA. Data analysis was performed using descriptive statistics in SPSS version 26. Reliability was confirmed through Cronbach's alpha ( $\alpha = 0.82$ ). Ethical clearance was obtained from the institutional review board.

**Results:** This study investigated the knowledge of RA, focusing on Nursing and Physiotherapy students, mainly comparing the streams of study and undergraduate years. A total of 190 students participated (133 nursing, 57 physiotherapy), with 96% response rate. Overall knowledge of rheumatoid arthritis (RA) was moderate. Nursing students demonstrated higher knowledge scores (65.4%) compared to physiotherapy students (49.1%). Second-year students generally performed better than third-year students, especially in identifying common symptoms (74.2% vs. 62.9%). Regarding pathophysiology, nursing students showed a stronger understanding (49.6%) than physiotherapy students (42.1%). However, across both groups, knowledge of diagnostic investigations was limited ( $\approx 45\%$ ), and understanding of treatment and management was poor, with fewer than 40% answering correctly. Findings indicate moderate overall knowledge with gaps in diagnosis and pharmacological management.

**Conclusion:** The study revealed that undergraduate healthcare students possess only partial knowledge of RA, highlighting the need to strengthen rheumatology content in nursing and physiotherapy curricula. Integrating case-based learning and clinical exposure could improve students' understanding of autoimmune diseases and enhance their competence in early detection and management.

**Keywords:** *Rheumatoid Arthritis, Healthcare Students, Knowledge, Sri Lanka*

## Associations between Symptoms of Attention-Deficit Hyperactivity Disorder and Life Satisfaction in Healthcare Students at A Selected University in Sri Lanka

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**Background:** Attention-Deficit Hyperactivity Disorder (ADHD) is a prevalent neurodevelopmental condition often persisting into adulthood, affecting concentration, emotional regulation, and social functioning. Healthcare students are particularly vulnerable to the negative impact of ADHD symptoms due to heavy academic workloads, clinical responsibilities, and cultural stigma surrounding mental health. This study aimed to assess the association between ADHD symptoms and life satisfaction among healthcare students in Sri Lanka.

**Methods:** A cross-sectional study was conducted at the International Institute of Health Sciences (IIHS), Sri Lanka. Using stratified random sampling, 239 students from Nursing, Physiotherapy, and Biomedical Science programs were recruited. Data were collected using the Adult ADHD Self-Report Scale (ASRS-v1.1) to measure ADHD symptoms and the Satisfaction with Life Scale (SWLS) to assess life satisfaction. A structured online questionnaire was distributed via Google Forms, and statistical analyses were performed using SPSS version 26, applying descriptive statistics, Pearson's correlation, and regression analysis.

**Results:** Out of 239 invited students, 115 completed the survey (response rate 48.1%). The mean ADHD symptom score was 33.52 (SD = 6.99), with 28.6% of participants scoring above the clinical threshold for high symptomatology. The mean SWLS score was 19.71 (SD = 7.14), indicating moderate life satisfaction overall. A significant inverse relationship was found between ADHD symptoms and life satisfaction, with higher inattention ( $r = -0.42$ ,  $p = 0.002$ ) and hyperactivity ( $r = -0.39$ ,  $p = 0.004$ ) scores associated with lower life satisfaction. Students with less clinical experience and those lacking mental health support services reported greater challenges. These findings align with international literature, highlighting that ADHD symptoms reduce academic resilience, increase stress, and negatively affect well-being.

**Conclusion:** The study demonstrates that ADHD symptoms significantly and negatively influence life satisfaction among healthcare students in Sri Lanka. Early screening, tailored interventions, academic accommodations, and accessible counseling services are urgently needed to improve student well-being and academic success. The results underscore the importance of destigmatizing ADHD in higher education and providing comprehensive institutional support.

**Keywords:** ADHD, Life Satisfaction, Healthcare Students, ASRS-v1.1, SWLS, Sri Lanka

## PP 13

### Knowledge and Practice Related to Nutrition among Healthcare Students

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**Background:** Healthcare students represent the future workforce responsible for promoting public health, making their own nutritional well-being vital. Despite academic exposure to nutrition, irregular eating patterns, stress, peer influence, and financial barriers may undermine their health. This study aimed to assess the nutritional status, dietary patterns, lifestyle factors, and nutrition knowledge among healthcare students at the International Institute of Health Sciences (IIHS), Sri Lanka.

**Methods:** A cross-sectional survey was conducted among 152 students from nursing, biomedical sciences, and physiotherapy programs. A self-administered questionnaire assessed demographics, dietary habits, physical activity, sleep, stress, and nutrition knowledge. Body Mass Index (BMI) was calculated from self-reported height and weight. Data were analyzed using descriptive statistics, chi-square tests, and regression analysis.

**Results:** Nutrition knowledge was suboptimal, with 68.4% reporting “Poor” or “Fair” understanding. Nearly half (47.4%) consumed fewer than three meals daily, and 70.4% reported fast-food consumption. Only 18.4% met the recommended fruit and vegetable intake. About 32.2% slept less than five hours per night, and 28.3% engaged in minimal physical activity ( $\leq 1$  day/week). Financial constraints (28.9%) and peer influence (18.4%) significantly shaped dietary choices, with 25.7% reporting health conditions affecting nutrition. Strong associations emerged between poor nutrition knowledge and unhealthy dietary behaviors.

**Conclusion:** The study revealed considerable gaps in nutrition knowledge and unhealthy lifestyle practices among healthcare students. Academic demands, stress, financial limitations, and peer influence exacerbate these challenges. Institutional interventions such as curriculum strengthening, affordable campus-based meal programs, and wellness initiatives are urgently needed to promote healthier habits and prepare students to serve as credible role models for future patients.

**Keywords:** *Nutritional Status, Healthcare Students, Dietary Habits, Academic Stress, Nutrition Knowledge*

## PP 14

### Relationship between Stress and Coping Strategies among Students in a Private University

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**Background:** Stress among university students is a growing global concern, particularly among healthcare undergraduates who face demanding academic and clinical workloads. High stress levels can adversely affect students' psychological well-being, academic performance, and professional growth. Coping strategies play a key role in managing stress effectively. The main objective of this study was to assess the relationship between stress levels and coping strategies among students in a private university in Sri Lanka.

**Method:** A descriptive cross-sectional study was conducted among 222 students enrolled in general programs at the International Institute of Health Sciences (IIHS), Gampaha District. Data were collected using a pre-tested, self-administered questionnaire consisting of the Perceived Stress Scale (PSS) and the Brief COPE Inventory. The data were entered and analyzed using SPSS version 25, employing descriptive statistics such as frequency and percentage to identify stress levels and commonly used coping strategies.

**Results:** Of the total participants, 71.2% were female, and 57.7% studied Nursing. The results of the PSS indicated that most students experienced moderate levels of stress, with the majority reporting that they "sometimes" or "fairly often" felt unable to manage important tasks in daily life. The most frequently adopted adaptive coping strategies included acceptance (75.2%), planning and organizing tasks (70.3%), positive self-talk (74.3%), and seeking social support (36% daily). However, maladaptive behaviors such as avoidance (65.8%), overeating or increased caffeine intake (about 60%), and low professional help-seeking (24.3%) were also observed. The findings suggest that while many students engage in positive coping behaviors, avoidant and emotion-focused responses remain common.

**Conclusion:** The study concludes that students experience moderate stress levels and employ both adaptive and avoidant coping strategies. Strengthening stress management programs, counseling services, and health education within universities is recommended to promote healthier coping mechanisms and enhance student well-being.

**Keywords:** *Stress, Coping strategies, Healthcare Undergraduates, Private University, Sri Lanka*

## PP 15

### Knowledge and Practice Regarding the Use of Personal Protective Equipment (PPE) among Healthcare Students at a Private Institute in Sri Lanka

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**Background:** The study examined the issue of healthcare students at a private institution in Sri Lanka using personal protective equipment (PPE) inconsistently and with little expertise. It sought to evaluate their knowledge and practices of PPE use, pinpoint knowledge gaps, and provide instructional methods to improve infection control skills.

**Method:** 80 first-year nursing students at the International Institute of Health Sciences took part in a cross-sectional descriptive study using a validated self-administered questionnaire. The data was analysed using descriptive statistics. The results showed good theoretical comprehension but poor practical adherence, highlighting the need for more thorough clinical supervision and continuous, hands-on PPE instruction.

**Results:** A total of 108 students participated in the study, achieving a response rate of 83.3%. Most were females (75.6%) aged 20–23 years. Findings showed generally good knowledge and practices regarding personal protective equipment (PPE). About 88.9% correctly identified PPE components, and 93.3% emphasized the importance of hand hygiene. Training attendance was 72.2%, and 88.9% reported regular PPE use. The majority used surgical masks (91.1%) and gloves (93.3%), while 68.9% used N95 masks and 61.1% performed fit testing. However, consistent use of gowns (47.8%) and eye protection (53.3%) was lower. Most respondents practiced proper donning (88.9%), doffing (85.5%), and maintained hand hygiene (96.7%). Additionally, 73.3% had read WHO, CDC, or national PPE guidelines. Overall, students showed strong awareness and compliance with infection control measures, though improvements are needed in consistent use of all PPE components and adherence to international safety guidelines to ensure optimal protection in clinical settings.

**Conclusion:** The study concluded that while nursing students demonstrated good knowledge and awareness of PPE, gaps remain in consistent practical application, particularly in gown and eye protection use. Strengthening hands-on training, supervision, and adherence to international guidelines is essential to enhance infection control competence and safety.

**Keywords:** *Personal Protective Equipment (PPE), Nursing Student, Infection Control, Knowledge and Practice, Clinical training.*



**A Study on Job Satisfaction of Nurses in the Field of Psychiatry with Special Reference to the National Institute of Mental Health, Sri Lanka**

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**Background:** In many countries, the majority of the national health workforce is made up of nurses. Psychiatric nursing is one of the essential components in general nursing, but in a global context, psychiatric nursing is somewhat different from other fields of general nursing. They play a major role in health care delivery and direct the organization toward success. Previous studies report that psychiatric nurses are more prone to have less job satisfaction.

**Methods:** The purpose of this study is to analyze the job satisfaction of psychiatric nurses, with special reference to the National Institute of Mental Health (NIMH), Sri Lanka. The sample consisted of 258 employees selected from different psychiatric units of the hospital. The Minnesota Satisfaction Questionnaire with a five-point Likert scale was used to collect primary data. Extrinsic and intrinsic factors of job satisfaction have been analyzed in the study. Extrinsic factors such as compensation, coworkers, supervision, and working conditions were used, while intrinsic factors such as advancement, recognition, responsibility, and work content were also used to conduct the study. The research design used by the researcher was an explanatory (causal) research design. SPSS software version 20.0 was used to analyze the collected data using descriptive and inferential statistics such as frequencies, percentages, cross tabulations, means, standard deviations, correlation, multiple regression, independent t-tests, and one-way ANOVA.

**Results:** Among 258 nursing officers (87.7% female), reliability was acceptable ( $\alpha = .71-.87$ ). Mean job satisfaction was moderate ( $M = 3.34$ ,  $SD = 0.52$ ); supervision scored highest ( $M = 3.92$ ) and pay lowest ( $M = 2.83$ ). Intrinsic ( $r = .33$ ,  $p < .001$ ) and extrinsic ( $r = .33$ ,  $p < .001$ ) factors correlated positively with satisfaction, with working conditions strongest ( $r = .46$ ). Regression was significant,  $F(7, 250) = 11.89$ ,  $p < .001$ ,  $R^2 = .25$ ; working conditions ( $\beta = .44$ ,  $p < .001$ ) and recognition ( $\beta = .17$ ,  $p = .005$ ) predicted satisfaction, coworkers had a small negative effect ( $\beta = -.13$ ,  $p = .027$ ). Gender and age effects were nonsignificant.

**Conclusion:** Based on the findings, the researcher recommends that NIMH/Ministry of Health revise its recruitment, promotion, training, and work condition guidelines and policies. Employee demographic diversity should also be considered when creating human resource-related policies. Finally, the potential for future research has been identified at the end of the study.

**Key Words:** *Job Satisfaction, Psychiatric Nursing, Extrinsic Factors, Intrinsic Factors*

**Access the awareness and knowledge on breast cancer and practices on breast self-examination among the healthcare students in Colombo**

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**Background:** Breast cancer (BC) is the most frequently diagnosed cancer in women globally and the most common cancer in women in Sri Lanka, where incidence is increasing. Early detection and treatment are crucial for improving survival rates, and Breast Self-Examination (BSE) is considered a low-cost, high-quality screening tool. As the future workforce, healthcare students' knowledge, attitudes, and practices significantly impact public health outcomes. The general objective was to assess the awareness, knowledge, and practices related to BC and BSE among healthcare students in Colombo.

**Method:** A descriptive cross-sectional study design was carried out among healthcare students enrolled in higher education institutions (private and government sectors) within the Colombo District. Convenient sampling was used to select the participants. Quantitative data were collected using a structured, self-administered questionnaire. A total of 105 participants were included in the final data analysis. Data were analyzed using descriptive statistics (frequencies and percentages) and inferential statistics, specifically correlation analysis, performed using the SPSS software version 26.

**Results:** A total of 105 healthcare students participated, with most from Nursing (47.6%), Biomedical Sciences (20%), and Physiotherapy (19%). The majority were female (75.2%) and aged 21–24 years (54.3%). Overall, 92.4% were aware of breast cancer, and 68.6% had heard about breast self-examination (BSE). Commonly identified risk factors included family history (84.8%), past breast lumps (78.1%), and late menopause (74.3%), while awareness of early menarche and multiparity was low. The most recognized warning signs were breast lumps (80%) and breast pain (67.6%). Only 46.7% practiced BSE, with lack of proper technique (53.3%) and shyness (33.3%) as main barriers. The internet (65.7%) and lectures (19%) were key information sources. A significant positive correlation was found between academic discipline and BSE awareness ( $r = 0.201$ ,  $p = 0.04$ ) and between BSE awareness and practice ( $r = 0.339$ ,  $p < 0.01$ ).

**Conclusion:** The study concluded that awareness of BC is high among healthcare students in Colombo, but specific knowledge gaps regarding risk factors and low regular BSE practice persist. Educational interventions should be implemented to address these deficiencies, improve comprehensive knowledge, and enhance the regularity and accuracy of BSE practices among these future healthcare professionals.

**Keywords:** *Breast Cancer, Awareness, Knowledge, Healthcare Students, Breast Self-examination*

## Factors Influencing Perceived Stress among Nursing Students in a Private Nursing Institute in Sri Lanka

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**Background:** High levels of stress are experienced by nursing students as a result of clinical, academic, and financial demands. Their future clinical competency, emotional health, and academic success might all be adversely affected by stress. Finding the main causes of stress perception among Sri Lankan nursing students is essential to creating interventions that promote their well-being. The objective of this research is to evaluate the perceived stress levels of nursing students at the International Institute of Health Sciences (IIHS) and investigate the influence of academic, clinical, financial, and sociodemographic factors on stress levels.

**Methodology:** 205 nursing students at IIHS participated in a descriptive cross-sectional study. A straightforward random sample technique was used to choose the participants. The Perceived Stress Scale (PSS-10) and extra items about clinical training, academic workload, and financial status were included in a self-administered questionnaire used to gather data. Using descriptive and inferential statistics like ANOVA and Pearson's correlation, statistical analysis was carried out using SPSS 26.

**Results:** Moderate stress was indicated by 43.4% of students, while high stress was recorded by the majority (52.7%). Primary stressors were clinical rotations (37.1% rated them as moderately stressful, while 29.8% rated them as extremely stressful), academic workload (65.4% rated them as unmanageable), and financial issues (35.1% rated financial restrictions as a substantial stressor). Financial instability, professional practice obligations, and an increased workload in school were all linked to higher stress levels.

**Conclusion:** The results emphasize the necessity of focused interventions to assist nursing students in efficiently managing stress, including financial aid programs, stress management training, and academic support programs. Policies that lower stress levels and improve students' mental health and academic performance should be put in place by educational institutions.

**Keywords:** *Perceived Stress, Nursing Students, Academic Stress, Clinical Workload, Financial Constraints, Mental Well-being*

## PP 19

### Awareness on Dietary Habits and Nutrition among Teenagers in A Selected Sunday School in Gampaha District, Sri Lanka

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**Background:** Adolescence is a critical period of physical and cognitive development. Optimal nutrition during this phase of life is essential for good health throughout an individual's life and to prevent future diseases. However, adolescent dietary habits have changed toward unhealthy dietary patterns due to social, environmental, and economic influences. This study aimed to assess dietary practices, nutritional awareness, and the factors that influence food choices among adolescents who participate in St. Anne's Sunday School, Miriswatta, Gampaha District, Sri Lanka.

**Method:** A descriptive, cross-sectional study was carried out among 88 teenagers aged 13–19 years attending St. Anne's Sunday School, Miriswatta, Gampaha District, Sri Lanka. Data collection was through a pretested self-administered questionnaire available in English, Sinhala, and Tamil. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were analyzed using IBM SPSS Statistics Version 28. Reliability was ensured through Cronbach's Alpha ( $\geq 0.7$ ), and content and construct validity were established through expert review and factor analysis. Ethical clearance for the study was obtained from the Ethics Review Committee of the International Institute of Health Sciences.

**Results:** The majority of participants were females (53.4%), whereas 59.1% resided in rural areas. Most consumed  $\geq 3$  meals per day, 97.7%, and frequently snacked, 87.5%. However, 86.4% ate out more than twice per week. Nutritional awareness regarding hydration was moderate to high, at 63.6%, while for the effects of sugary foods, it was 52.3%. Yet, there are significant knowledge gaps about the basic structure of nutrients such as proteins, fats, and vitamins and the health risks of fast foods. Vegetable consumption was average, with 53.4% consuming them at most meals, and there was a high frequency of sugary snack and beverage consumption in excess of 70%. School programs were the main source of nutrition knowledge, whereas family and social media had less influence.

**Conclusion:** Teenagers have shown a moderate level of nutritional knowledge, but do not apply it in their daily eating. Identification of persistent gaps in knowledge and unhealthy snacking indicates the requirement for focused educational interventions aimed at developing balanced diets and limiting fast-food and added sugar intake among adolescents in Sri Lanka.

**Keywords:** *Nutritional Awareness, Teenagers, Dietary Habits, Sri Lanka, Health Education*

## Knowledge, Attitude, and Practice towards Simulation-Based Learning among Nursing Students in Sri Lanka

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**Background:** Simulation-based learning (SBL) has become a pivotal tool in medical and nursing education, offering realistic, risk-free environments that enhance students' knowledge, skills, and attitudes while ensuring patient safety. By creating engaging, interactive, and adaptable learning experiences, virtual simulations have transformed educational methodologies in healthcare training. This study aims to explore the knowledge, attitudes, and practices of nursing students at the International Institute of Health Sciences (IIHS), Sri Lanka, regarding SBL. The primary objective of this study was to assess the knowledge, attitudes, and practices of nursing students at IIHS related to simulation-based learning.

**Methodology:** A descriptive cross-sectional study was conducted among IIHS nursing students. A simple random sampling method was used to select participants. Data was collected through a self-administered questionnaire consisting of demographic details and sections on knowledge, attitudes, and practices regarding SBL. Statistical analysis, including descriptive methods, was performed using SPSS software. Ethical clearance was obtained, and participant confidentiality was ensured throughout the research process.

**Results:** The study assessed the knowledge, attitudes, and practices of simulation-based learning among 401 nursing students at the International Institute of Health Sciences (IIHS), with an 89.11% response rate. Most participants 64.2% were in the 21-24 age group, and the majority were female 69.8% and Sinhalese 76.4%. A large portion 66.6% correctly identified simulation-based learning as an educational tool for real-world scenarios, though some 12.7% misunderstood it as fitness training. The attitudes towards simulation-based learning were generally positive, with 71.9% agreeing that it enhances practical skills and problem-solving abilities. However, practice showed mixed engagement, with only 5.8% regularly participating in simulation activities, and 50.4% occasionally doing so. Many expressed that there is room for improvement in the current simulation-based learning opportunities at IIHS.

**Conclusion:** While nursing students at IIHS show positive attitudes and a reasonable level of knowledge about SBL, the lack of access to regular simulation opportunities appears to limit their practice and engagement. These findings suggest a need for enhanced simulation resources and more frequent practice opportunities to improve student confidence and skill proficiency in clinical settings

**Keywords:** *Simulation-based Learning, Nursing Education, Student Knowledge, Student Attitudes, Nursing Practices, Virtual Simulation, Sri Lanka, IIHS*

## PP 21

### Perception of Fast-Food vs Home-Cooked Meal among Healthcare University Students

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**Background:** In recent years, the fast-food industry has increasingly targeted modern consumers, thereby increasing the risk of health issues across all age groups. Globalization has made processed foods widely available, and their popularity stems from affordability, convenience, and quick service. However, these come with poor nutrition, high calories, and a greater risk of chronic diseases. In contrast, homemade meals made from fresh ingredients offer better nutrition, support disease prevention, and promote a healthy weight. Understanding dietary health requires examining both food preferences and health beliefs. This study aims to investigate the food choices and health perceptions of students enrolled in health-related academic programs.

**Methodology:** A cross-sectional study was conducted using stratified sampling, with 278 students selected based on Morgan's Table. Data were collected through a structured questionnaire covering demographics, dietary habits, lifestyle, and food attitudes. The survey included closed-ended and Likert-scale questions. Data were analyzed in SPSS version 26 using descriptive and inferential statistics to identify significant relationships.

**Results:** Despite the health concerns associated with fast food, the study's analysis of the dietary patterns of healthcare university students showed that they mostly eat home-cooked meals. A total of 30.3% of men and 69.7% of women took part in the study. The average perception score for females was slightly higher 39.06 than for males 38.53. Fast food consumption is still common, though, because it's affordable, convenient, and easily accessible. Meal patterns were also impacted by environmental effects, lifestyle factors, and environmental factors. Finally, 114 participants, or 38.0%, selected none of the above, indicating that a substantial portion of respondents did not identify any of the listed health issues as a concern.

**Conclusion:** This study examines the eating habits and food views of university students in health-related fields, focusing on their intake of fast food and homemade meals. Although homemade food is known to be healthier, fast food remains popular because it is cheap, easy to find, and saves time. Universities can help encourage better eating habits by creating programs that educate and motivate students to choose healthier foods.

**Keywords:** *Nutritional Awareness, Teenagers, Dietary Habits, Sri Lanka, Health Education*

## Stress Levels and Coping Mechanisms among University Students during Exams at a Leading Private University in Negombo

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**Background:** Academic stress is a common experience among university students, especially during examination periods, which often involve high expectations and time pressures. Such stress can impact not only students' mental health but also their academic performance and overall well-being. Coping strategies play a crucial role in how students manage these pressures, influencing their ability to adapt effectively and maintain emotional balance during challenging academic situations. The primary objective of this study is to assess the stress levels and coping mechanisms among undergraduate students at a private university during examinations.

**Methods:** A quantitative cross-sectional survey was conducted with 101 undergraduate students in a leading private university. Data was collected using a self-administered questionnaire. Stress was measured using the Perceived Stress Scale (PSS-10), and coping strategies were assessed using the Brief COPE inventory, categorized into problem-focused, emotion-focused, and avoidant coping. The collected data were analyzed using SPSS, descriptive statistics, and binned for categorical interpretation.

**Results:** a total of 101 students participated from nursing, biomedical science, and physiotherapy courses. The mean age of participants was 21.21 years (SD = 2.22), with females comprising 61.4% and nursing students with 51.5% of the sample. Most students experienced moderate stress (90.1%), with a mean PSS-10 score of 20.85 (SD = 4.14), with smaller proportions reporting high (7.9%) and low stress (2%). Emotion-focused coping was the most commonly employed strategy (mean = 27.90, SD = 4.65), followed by avoidant (mean = 24.81, SD = 5.52) and problem-focused coping (mean = 15.73, SD = 3.39). Moderate use was most prevalent across all coping strategies, though some students demonstrated high reliance on avoidant coping. Chi-square analyses suggested trends where higher stress was linked to greater avoidant coping and lower problem-focused coping, though these associations were not statistically significant ( $p > 0.05$ ). Emotion-focused coping appeared largely independent of stress levels.

**Conclusion:** Undergraduate students predominantly experienced moderate stress during examinations and relied most on emotion-focused coping. The findings highlight the importance of stress management interventions and the promotion of problem-focused coping strategies to support student well-being and academic performance.

**Keywords:** *Academic Stress, Perceived Stress Scale, Coping Mechanisms, Brief COPE, Undergraduate Students*

## PP 23

### Knowledge, Attitude, and Practice about Dental and Oral Health among Students in Private Universities in Gampaha District, Sri Lanka

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**Background:** Oral health is essential for overall well-being, yet misconceptions persist, affecting dental care practices. This study investigates attitudes, knowledge, and behaviors toward oral health to identify areas for improvement. The study aimed to assess participants' awareness, attitudes, and misconceptions regarding oral health, focusing on the importance of oral hygiene, regular checkups, self-care, and the intergenerational impact of oral health.

**Methodology:** A cross-sectional survey was conducted with a structured questionnaire to gather responses from a sample population. The questions addressed the importance of oral health, the role of self-care, regular dental checkups, molar care, and maternal influence on children's oral health. The data were analyzed using descriptive statistics to assess overall knowledge and identify gaps in understanding.

**Results:** The majority of participants 80.5% strongly valued oral health, with 86% acknowledging the need for regular checkups. However, 1.5% expressed uncertainty or disagreed with its necessity. Most respondents 97.5% rejected the notion that dental health is predetermined at birth, and over 90% recognized the importance of molar care. While personal responsibility in oral hygiene was widely accepted, there was confusion about the maternal influence on children's oral health, with 55.5% either neutral or disagreeing. While 33.0% of participants agreed that a mother's oral health affects her children's dental health, a significant portion 40.0% disagreed, and 15.5% strongly disagreed. Additionally, 11.5% remained neutral on the subject. These results suggest that there is some confusion or lack of understanding about the intergenerational impact of oral health, particularly in terms of how mothers' oral hygiene habits, diet, and health behaviors can influence their children's oral health.

**Conclusion:** While participants demonstrated strong awareness of oral hygiene, regular checkups, and self-care, misconceptions remain regarding the intergenerational impact of oral health. Education programs are recommended to address these gaps and further enhance community oral health practices.

**Keywords:** *University Students, Oral Health, Gampaha District, Sri Lanka, Awareness*



## Assessing the Relationship between Social Support and Motivation among Students in a Selected Private University in Sri Lanka

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**Background:** Social support and motivation are key factors influencing students' academic success and well-being. While social support provides emotional, informational, and practical assistance, motivation drives learning and achievement. University students, especially in private institutions, often face stress, financial pressures, and adjustment challenges that can reduce motivation. This study examines the relationship between social support and motivation among students in a selected private university in Sri Lanka.

**Method:** A descriptive cross-sectional study was conducted at the International Institute of Health Sciences (IIHS), Gampaha District, among 217 nursing, physiotherapy, and biomedical science students selected via probability sampling using Morgan's table. Data were collected through a self-administered questionnaire including the MSPSS and SchMOT scales. Analysis was performed with SPSS v25 using descriptive and inferential statistics ( $p < 0.05$ , 95% CI). Ethical approval was obtained, and informed consent was provided by all participants.

**Results:** A total of 216 students participated in the study, achieving a 100% valid response rate. Most were female (68.1%), with 30.1% male and 1.9% preferring not to disclose gender, and nearly half (49.6%) were aged 21–22 years, with ages ranging from 16 to 33. First-year students comprised 49.1% of the sample, followed by second-year (38.9%) and third-year students (12%), while Nursing had the highest programme representation (50%), followed by Biomedical Science (25.5%) and Physiotherapy (24.5%). Findings from the Multidimensional Scale of Perceived Social Support (MSPSS) indicated high levels of social and emotional support from family, friends, and significant others, with many strongly agreeing that they have a special person for comfort and that their family provides help. Similarly, the General School Motivation Scale (SchMOT) showed high academic motivation, with students valuing good grades and believing learning leads to good job opportunities. Overall, the results reflect a student population that is both well-supported and highly motivated academically.

**Conclusion:** This study examines how social support from peers, family, and academic institutions influences university students' motivation. It explores how these sources of support affect students' engagement, emotional well-being, and academic performance. The findings aim to provide insights for universities, educators, and policymakers to strengthen support systems, enhance motivation, and promote academic success and personal development.

**Keywords:** *Social Support, Motivation, University Students, Private Universities, Sri Lanka*

## Factors Affecting Needle Prick Injury among Student Nurses in the College of Nursing, Kandy

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**Background:** Needlestick injuries (NSIs) are a significant occupational risk for healthcare workers, particularly nursing students who are often exposed to clinical environments during their training. These injuries pose a serious threat as they can lead to the transmission of bloodborne diseases such as Hepatitis B, Hepatitis C, and HIV. The College of Nursing, Kandy, is no exception, where student nurses frequently engage in practical clinical placements. Although needle prick injuries are well-documented globally, their prevalence and contributing factors among nursing students in Sri Lanka remain underexplored.

**Methods:** This study employs a descriptive cross-sectional design to gather data from 150 nursing students at the College of Nursing, Kandy. Stratified random sampling was used to select participants across different years of study to ensure a representative sample. Data were collected using a structured questionnaire that included questions on demographics, self-reported history of needle stick injuries, knowledge of safety protocols, and practices regarding needle handling and disposal. In addition, the study assessed environmental and organizational factors contributing to the risk of NSIs, such as overcrowding, supervision levels, and availability of personal protective equipment (PPE). Data analysis was conducted using descriptive statistics and inferential methods via SPSS version 26.

**Results:** The findings revealed that approximately 40% of the student nurses reported experiencing at least one needle stick injury during their clinical training. The most common causes of these injuries included the recapping of needles, hurried procedures, and improper disposal of sharps. A significant knowledge gap was observed among the students, with many lacking awareness of proper safety protocols and post-exposure management. Environmental factors such as overcrowded clinical settings, lack of adequate supervision, and insufficient availability of PPE were also identified as contributing to the high incidence of NSIs among the students.

**Conclusion:** The study concludes that needle stick injuries are a prevalent and significant issue among nursing students at the College of Nursing, Kandy. The high incidence of these injuries highlights the urgent need for improved training programs that focus on safety protocols, proper

needle handling, and post-exposure management. Furthermore, clinical environments should be optimized to reduce overcrowding and improve supervision and PPE availability. Future research should focus on developing and testing intervention strategies to mitigate the risk of NSIs and enhance the overall safety of student nurses in clinical practice. These findings may inform policy recommendations aimed at enhancing the safety standards for nursing students in Sri Lanka and beyond.

**Keywords:** *Needlestick Injury, Nursing Students, Safety Protocols, Bloodborne Diseases, Kandy, Clinical Training, Preventive Measures*

## PP 26

### **Tendency in Reading Books among Nurses in Leisure Time among Staff Nurses in Teaching Hospital, Anuradhapura**

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**Background:** People who read regularly have shown a positive impact on productivity and creativity (Nora inverses 2015) increase empathy (Carnegie-Mellon 2013) and increase vocabulary in the otherwise nursing is a more stressful career (Beta green wood 2001) study revealed that reading reduce stress by 68% compared to listening music 61% and taking to walk 42% (Lewis 2018). There is no research done about the tendency to read books among nurses. Therefore, this study was conducted to examine the tendency of reading books among staff nurses. The general objective of this study is to examine the tendency of reading books in leisure time among staff nurses in the Teaching Hospital, Anuradhapura. According to this study, there were described habits of reading books in leisure time among Nurses.

**Methodology:** This study was conducted with a quantitative approach. Methodology is the systematic, theoretical analysis of the methods applied to a field to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Typically, it encompasses concepts such as paradigm, theoretical model, phases, and quantitative and qualitative techniques. In research methodology, authors expect to discuss the research approach and design, strengths, and weaknesses relating to the study. It also included a rationale for the selection of the research approach and design. The study approach is quantitative, with a tendency to read books in leisure time among staff nurses. Ethical approval was obtained from the Ethical Review Committee in Rajarata University in Sri Lanka. A self-administered questionnaire was distributed among 200 nurses in the teaching hospital, Anuradhapura. Data was entered into Microsoft Excel sheets and analysed.

**Results:** The Study revealed that most nurses waste their time watching TV and listening to music, but most nurses do not read. The study revealed that most nurses read for relaxation rather than studying. The study revealed that working conditions mainly affected reading habits rather than social and economic problems. Other results revealed that the need for information and enjoyment motivated them rather than the need for a job.

**Conclusions:** Nurses complain of no time to read, but the study revealed that they spend much time watching TV and listening to music. Nursing managers need to be aware of creating good working conditions. Nursing leaders need to be aware that nurses are interested in newspapers, therefore publishing newspapers. A lot of nurses want a good library.

**Keywords:** *Reading Books, Leisure Time, Staff Nurses*

## PP 27

### Childhood Immunization Attitude and Knowledge among Nursing Students

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**Background:** Childhood immunization plays a major role in providing defense against infectious diseases and thereby eradicating them from the community. Although these vaccines are provided free of charge by the government, their acceptance or refusal for one's own child depends on the parents' or legal guardian's decision. In the current context, widespread misinformation has fostered skepticism about vaccine safety and necessity, complicating public health communication. Serving as a vital link between the healthcare system and the public, nurses counter misconceptions and address health concerns, including those related to immunization, through evidence-based guidance. Nursing students the future public health advocates may directly influence future societal vaccination rates; thus, evaluating their knowledge and attitudes is essential to identify and address potential gaps. Accordingly, this study aimed to assess the levels of knowledge and attitudes regarding childhood immunization among nursing students in a selected private university in the Western Province, Sri Lanka.

**Methods:** The study utilized a cross-sectional design with a convenience, non-probability sampling method. The data was collected by a self-administered online questionnaire, which consisted of three major sections: socio-demographic information, knowledge levels, and attitude levels. Statistical analysis was done using the SPSS 26 package.

**Results:** The 112 respondents involved in this study were young adults (17 to 25 years of age) representing ten different academic batches of the selected university. Out of a possible score of 50 for each domain, the mean knowledge score was 24.07 (48.1%), while the mean attitude score was 24.38 (48.8%). Spearman's rank-order correlation indicated a strong positive relationship between knowledge and attitude scores ( $r_s = 0.716$ ,  $p < 0.001$ ). Notably, 40.2% of participants agreed that their education on vaccines was insufficient, 75.9% believed that their academic curriculum should include more content on vaccination, and 75% agreed that nursing students should receive specialized training in vaccinology.

**Conclusion:** Based on the mean scores and defined cutoffs (low (0–32%), moderate (34–66%), and high (68–100%)), it is concluded that moderate levels of knowledge and attitude exist among this population. However, the majority's acknowledgment regarding the need for further vaccination education highlights their awareness of a knowledge gap in the current academic curriculum. Therefore, enhancing immunization-related education and training within the nursing curriculum is essential to strengthen both knowledge and attitudes in future nurses.

**Keywords:** *Childhood immunization, Nursing students, Knowledge, Attitude*

## The Relationship between Socioeconomic Status and Sleep Patterns among Students in a Selected Private University, Gampaha District

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**Background:** Sleep patterns are crucial for health and well-being, and socioeconomic status significantly impacts lifestyle behaviors. Lower SES is linked to higher sleep issues due to stress, financial constraints, and limited resource access. University students who balance academics with work and financial pressures face unique difficulties that may affect sleep quality and duration. Identifying differences in SES and sleep patterns is important to improve learning and overall health.

**Method:** The research examined sleep patterns across socioeconomic levels by administering structured questionnaires to randomly selected 100 participants in the 18-26 age range who underwent analysis using Chi-square tests on SPSS version 26.

**Results:** The study analyzed 100 participants aged 18–26 (mean age: 22 years, SD = 1.5). The majority were female (71%), Sinhalese (88%), and single (96%). Socioeconomic data revealed 49% of the population had a diploma or certificate, and 80% were students. Sleep patterns showed that 40% slept 5-6 hours on weekends, with 53% taking 15-30 minutes to fall asleep. Poor or fair sleep quality was rated by 61%, and 74% experienced daytime sleepiness. Chi-square tests revealed no significant relationships between socioeconomic factors and sleep patterns ( $p > 0.05$ ). These findings underscore the need for targeted interventions to improve sleep quality and well-being.

**Conclusion:** While SES did not show a significant direct relationship with sleep patterns, the high prevalence of sleep disturbances highlights the need for targeted interventions addressing behavioral and environmental factors. Universities should implement programs promoting sleep hygiene and stress management to enhance student health and academic performance.

**Keywords:** *Socioeconomic Status, Sleep Patterns, University Students, Sleep Quality, Behavioral Factors*

## PP 29

### Case Study: Integrating Exome Sequencing and Prenatal Testing to Guide Reproductive Decision-Making in a Consanguineous Couple

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**Background:** Consanguinity increases the risk of autosomal recessive disorders due to the higher likelihood of shared pathogenic variants. Genetic counseling and advanced molecular testing play a critical role in risk assessment and reproductive management in such couples.

**Methods:** A consanguineous couple with an adverse reproductive history was evaluated. Their first pregnancy, affected with chondrodysplasia punctata, was terminated. Post-termination genetic investigations, including chromosomal microarray (CMA) and whole exome sequencing (WES) of the fetus, revealed no pathogenic variants. For the subsequent pregnancy, couple-based WES was performed to identify potential carrier status. Prenatal diagnostic testing by amniocentesis was carried out in the ongoing pregnancy.

**Results:** Couple WES revealed both partners to be heterozygous carriers for a likely pathogenic variant in the *SMPD1* gene associated with Niemann-Pick disease, conferring a 25% recurrence risk. Amniocentesis and targeted testing of the fetus demonstrated an unaffected genotype. This finding provided reassurance to the couple and guided ongoing pregnancy management. The case underscores the value of couple-based genomic testing in consanguineous pairs, which can reveal carrier states not identified in isolated fetal analyses, and thereby enable informed reproductive decision-making.

**Conclusion:** Comprehensive genetic evaluation in consanguineous couples is essential for accurate risk assessment and prenatal management. Early identification of shared carrier status supports timely counseling, appropriate prenatal testing, and reassurance for at-risk families.

**Key Words:** *Consanguinity, Niemann-Pick Disease, Whole Exome Sequencing, Prenatal Diagnosis, Genetic Counseling.*

## Non-Invasive Brain Stimulation Combined with Exercise: Synergistic Neuroplasticity in Parkinson's Disease: A Comprehensive Review

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**Background:** Parkinson's disease (PD), a progressive neurodegenerative illness, is characterized by both motor and non-motor impairments brought on by the death of dopaminergic neurons. Since medications cannot stop the evolution of a disease, non-pharmacological therapies that encourage neuroplasticity are gaining popularity. The therapeutic benefits and mechanisms of combining exercise and non-invasive brain stimulation (NIBS) in individuals with Parkinson's disease are examined in this review.

**Methods:** A complete literature search was conducted using numerous electronic databases, including PubMed, Scopus and Google Scholar, to include articles published up to April 2025. Appropriate search phrases were used in various combinations. Articles not in English or lacking full-text access were excluded.

**Results:** Exercise and NIBS together seem to have more positive effects than either treatment alone. Improvements in gait, balance, motor function, and executive function have been documented in clinical trials. According to neurobiological research, co-application promotes dopaminergic pathways, improves cortico-striatal connections, and increases BDNF expression. However, individual responsiveness, exercise patterns, session time, and stimulation parameters all affect how successful these results are.

**Conclusion:** Evidence suggests that exercise and NIBS work together to improve neurorehabilitation in Parkinson's disease, possibly speeding up healing and neuroplasticity. However, the necessity for standardized procedures and individualized therapies is highlighted by protocol variances, small sample sizes, and a lack of long-term data. Future studies should examine the best time, dosage, and long-term advantages. All things considered, NIBS plus exercise seems to hold promise for enhancing quality of life and delaying the functional decline of Parkinson's disease. Overall, by utilizing synergistic plasticity mechanisms, NIBS and exercise together offer a viable non-invasive method to enhance neurorehabilitation in Parkinson's disease. To comprehend long-term consequences and enhance methods, more research is required.

**Keywords:** *Neuroplasticity, Parkinson's Disease, Non-Invasive Brain Stimulation*

## PP 31

### Evaluation of Correct and Improper Swabbing Techniques on Microbial Sample Integrity

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**Background:** Accurate microbial sampling via swabbing is essential for both diagnostics and environmental monitoring in laboratories. Prior empirical studies have shown that improper swabbing techniques, such as dry swabbing, can reduce microbial recovery by as much as 30–40%, underscoring the need for standardized procedural adherence. The objective of this study is to compare microbial recovery between proper and improper swabbing techniques on common laboratory surfaces, and to underscore the importance of following CLSI-recommended guidelines.

**Methods:** Four swab samples were collected from commonly touched surfaces at a biomedical laboratory: two from canteen tables and two from door handles. For each surface, one swab was taken following CLS guidelines (proper swabbing with rotation and uniform pressure), while the second was taken with deliberate deviations (improper swabbing with partial contact and inconsistent strokes). All swabs were cultured on nutrient agar and incubated at 37 °C for 24 hours. Colony morphology and counts were recorded.

**Results:** Proper swabbing consistently yielded higher CFU counts than improper swabbing. On canteen tables, proper swabbing recovered an average of  $32 \pm 5$  CFU compared to  $18 \pm 4$  CFU with improper swabbing. Door handle samples showed similar trends, with  $28 \pm 6$  CFU for proper swabbing versus  $15 \pm 3$  CFU for improper swabbing. When considering all four samples together, proper swabbing recovered approximately 1.8-fold more colonies overall. Statistical analysis using a paired comparison gave a single p-value = 0.02, indicating that the difference between proper and improper swabbing was significant. These results support prior findings that non-standardized swabbing underestimates microbial recovery.

**Conclusion:** Proper swabbing, as per CLSI guidelines, significantly improves bacterial recovery from environmental surfaces. Failure to follow standardized methods can lead to substantial underestimation of microbial load, with implications for infection control, laboratory quality assurance, and public health surveillance.

**Keywords:** *Swabbing Techniques, Microbial Recovery, Nutrient Agar, CLSI Guidelines, Laboratory Surfaces*



## PP 32

### Association between Sleep Habits and Behavioral Problems in Early Adulthood in Gampaha District, Sri Lanka

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**Background** - Sleep plays a vital role in physical, cognitive, and emotional well-being. Early adulthood (18–24 years) is a critical stage marked by academic, occupational, and social demands that commonly disrupt sleep. Poor sleep habits have been associated with mood disturbances, stress, reduced concentration, and lower productivity. This study aimed to examine the association between sleep habits and behavioral problems among early adults in the Gampaha district, Sri Lanka.

**Methods** - A descriptive cross-sectional study was conducted among 173 early adults aged 18–24 years from educational institutions in the Gampaha district, selected through purposive sampling. Data were collected using a pre-tested, self-administered questionnaire assessing socio-demographics, sleep patterns, and behavioral indicators. Descriptive statistics and Chi-square tests were performed using SPSS version 27. Ethical clearance was obtained before data collection. The use of purposive sampling and institutional-based recruitment limits generalizability of findings to the broader young adult population.

**Results** - Of the participants, 53.8% were female, and the most common age was 23 years. Only 37.5% regularly slept 7–9 hours, while 41.6% reported sleep-related problems such as difficulty initiating or maintaining sleep. Although 89% were aware of the link between sleep and behavior, only 27.7% attempted to adopt healthier sleep habits. No significant association was observed between sleep habits and socio-demographic factors ( $p > 0.05$ ). However, environmental factors showed a significant impact on sleep habits and behavioral outcomes ( $p < 0.05$ ).

**Conclusion** - The study demonstrates a noteworthy association between poor sleep habits and behavioral challenges among early adults. Despite high awareness, proactive sleep-improving behaviors remain low, highlighting the need for targeted interventions. A key strength of this study is its focus on a critical but underexplored age group in the Sri Lankan context. Implementing sleep-hygiene awareness campaigns, stress-management programs, and campus-based mental-health support initiatives may help improve sleep quality and psychological well-being among young adults.

**Keywords** - *Sleep habits, Early adulthood, Behavioral problems, Sri Lanka, Gampaha district*

## Determinants of Work-Life Balance among Nurses Working at the National Institute of Mental Health, Sri Lanka

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**Background:** Work-life balance (WLB) is a crucial determinant of nurses' well-being and directly affects retention, job satisfaction, and patient care quality. Nurses at the National Institute of Mental Health (NIMH), Sri Lanka, face unique stressors such as high workload, stigma, and family responsibilities, which may negatively influence their WLB. This study aimed to identify the determinants of work-life balance among nurses at NIMH, with special emphasis on demographic factors, peer support, family constraints, and workload.

**Methods:** A descriptive cross-sectional study was conducted among 196 nurses working at was selected by using simple random sampling NIMH. Data were collected using a structured, self-administered questionnaire and analyzed using SPSS version 25. Descriptive statistics summarized demographic and occupational characteristics. Regression analysis was performed to identify predictors of work-life balance.

**Results:** Overall, 48% of nurses reported satisfaction with their work-life balance, 27% were dissatisfied, and 25% expressed high dissatisfaction. Age and experience were associated with WLB, with nurses aged 41–50 years reporting higher dissatisfaction. Salary scale significantly influenced satisfaction: those earning between LKR 31,000–41,000 reported moderate satisfaction, while those in the LKR 41,000–50,000 range showed marked dissatisfaction. Nurses earning above LKR 50,000 reported higher satisfaction. Job designation also mattered, with primary-level nurses reporting the greatest dissatisfaction. Regression analysis identified peer support, family constraints, and workload as significant predictors of WLB, while demographic factors were not statistically significant. The model explained 34.3% of the variance in WLB.

**Conclusion:** Nurses at NIMH face considerable challenges in achieving a satisfactory work-life balance, influenced mainly by workload, family constraints, and peer support. Targeted organizational strategies such as flexible scheduling, enhanced peer support systems, and workload management are recommended to improve WLB, enhance job satisfaction, and reduce turnover. Strengthening these determinants will contribute to retaining experienced nursing staff and ensuring better patient care outcomes.

**Keywords:** *Work-life Balance, Nurses, National Institute of Mental Health, Sri Lanka, Job Satisfaction, Workload, Peer Support, Family Constraints*

## Patient Satisfaction with the Healthcare Services at the Cardiothoracic Clinic of General Hospital, Sri Jayawardenepura, Sri Lanka

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**Background:** Patient satisfaction is a critical indicator of healthcare quality and effectiveness. This study aimed to assess the level of satisfaction with healthcare services among patients attending the cardiothoracic clinic of Sri Jayawardenepura General Hospital, Sri Lanka. Patient satisfaction is a widely recognized measure of the quality and effectiveness of healthcare delivery, reflecting both the technical and interpersonal aspects of care. It is not only an important outcome in itself but also a key determinant of treatment adherence, continuity of care, and overall health outcomes. Globally, healthcare systems are placing increasing emphasis on patient-centered care, where the needs, expectations, and experiences of patients are prioritized in service delivery. In specialized settings such as cardiothoracic clinics, patient satisfaction becomes even more critical due to the complexity of conditions managed, the need for ongoing follow-up, and the high level of trust required between patients and healthcare providers.

**Methods:** A descriptive cross-sectional study was conducted among 80 randomly selected patients. Data were collected using a pre-tested self-administered questionnaire covering socio-demographic characteristics and satisfaction dimensions. Descriptive statistics and chi-square tests were applied for data analysis using SPSS.

**Results:** The mean age of participants was  $59.35 \pm 8.45$  years, and most were male (71.3%) and employed (55%). Two-thirds of participants expressed overall satisfaction with the healthcare services. While 78.8% reported clinic hours as convenient, dissatisfaction was noted regarding long waiting times and difficulty accessing specialists (46.3%). A significant relationship was found between gender and general satisfaction. These findings highlight that while patients are moderately satisfied overall, service gaps remain.

**Conclusion:** The study concludes that overall patient satisfaction at the cardiothoracic clinic was moderate, with notable concerns about waiting time and specialist accessibility. Addressing these service gaps may enhance patient experience and healthcare quality. Further research is recommended to explore additional moderating factors influencing satisfaction.

**Keywords:** *Patient Satisfaction, Healthcare Services, Cardiothoracic Clinic, Sri Lanka*

## The Association between Acne and Stress among Female Healthcare Students in a Selected University in Gampaha District, Sri Lanka

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**Background:** Acne is a common skin condition triggered by hormonal fluctuations and psychological stress. Psychological stress has been identified as a significant contributing factor, particularly among individuals, especially among female healthcare students who are exposed to academic and clinical pressures, as well as the hormonal changes. Although the association between acne and stress is well established, there is limited research exploring this relationship specifically within the healthcare student population. This study aimed to identify the association between acne and stress among female healthcare students in a selected private university in Sri Lanka.

**Method:** A descriptive cross-sectional study was conducted with 337 female healthcare students (n=337) at various educational levels from the International Institute of Health Sciences (IIHS), Sri Lanka. Participants were selected using a convenience sampling method to ensure representative coverage of the population. Data were collected using a self-administered structured questionnaire that included socio-demographic data, acne severity, stress levels and lifestyle factors. A 5-point Likert scale was used to assess the stress level among healthcare students. Data analysis was performed using IBM SPSS Statistics version 27, applying descriptive statistics, frequency distributions. Acne severity was assessed using the Global Acne Grading System (GAGS), while stress levels were measured using the Perceived Stress Scale (PSS).

**Results:** Total Respondents were N = 337 (100%) students in the healthcare sector. The respondents N= 316(93.8%), were mainly single and their education was satisfactory, as N =298 (88.4%) had a diploma and N=39(11.6%) had a bachelor's degree. The highest facial region where subjects were affected by acne was the chin, N=93 (27.6%), whereas a moderate severity of acne was reported by N=101 (30.0%). Breakouts related to the menstrual cycle were reported in N=182 (54.0%), and N=154 (45.7%) of the women had symptoms related to hormones. According to the perception, stress mainly affects their acne by N=200(59.34 %).

**Conclusion:** Acne in healthcare students was found to be correlated with changes in hormones, psychological stress, and menstrual cycle, with the chin as the predominant affected area. Prevailing acne severity and perceived stress were moderately reported by most of the study population. The findings highlight the need for awareness and targeted interventions addressing stress management and hormonal influences to effectively reduce acne among female healthcare students.

**Keywords:** *Acne, Stress, Female Healthcare Students, Hormonal Factors, Acne Severity, Sri Lanka*

## Sleep Quality and Quality of Life among Patients with Chronic Kidney Disease in the North Central Province, Sri Lanka

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**Background:** Chronic kidney disease (CKD) is a growing public health concern in Sri Lanka, significantly impacting patients' physical, psychological, and social well-being. Sleep quality and quality of life (QOL) are critical indicators of health outcomes in this population. This study aimed to assess the relationship between sleep quality, QOL, and physical activity among CKD patients.

**Methods:** A descriptive cross-sectional study was conducted among 236 purposively selected patients receiving inpatient and outpatient CKD care in the North Central Province of Sri Lanka. Data were collected using a pre-tested sociodemographic questionnaire, the Pittsburgh Sleep Quality Index (PSQI), and the International Physical Activity Questionnaire (IPAQ). Statistical analysis included Chi-square tests, one-way ANOVA, t-tests, and Pearson correlation using SPSS version 26

**Results:** The majority of participants were male (56.7%) and married (79.2%). Most respondents (85.6%) reported a moderate QOL, while 12.3% reported high and 2.1% low QOL. Sleep quality was poor among 69.1% of participants, with an average sleep duration of 5- 7 hours. Significant associations were found between QOL and marital status ( $\chi^2 = 12.67$ ,  $p < 0.001$ ), employment status ( $\chi^2 = 8.55$ ,  $p = 0.036$ ), and CKD treatment status ( $\chi^2 = 18.72$ ,  $p < 0.001$ ). Participants who underwent kidney transplant reported higher QOL scores (mean = 72.4) compared to those under medical treatment (mean = 66.8,  $p = 0.002$ ) and dialysis (mean = 62.1,  $p < 0.001$ ). Sleep quality was significantly associated with gender ( $\chi^2 = 4.76$ ,  $p = 0.029$ ), marital status ( $\chi^2 = 9.21$ ,  $p = 0.027$ ), education ( $\chi^2 = 8.15$ ,  $p = 0.043$ ), and CKD treatment status ( $\chi^2 = 15.89$ ,  $p < 0.001$ ). A moderate positive correlation was observed between physical activity and QOL ( $r = 0.32$ ,  $p < 0.001$ ), while a significant negative correlation was found between sleep quality and QOL ( $r = -0.45$ ,  $p < 0.001$ ).

**Conclusion:** Most CKD patients in the study exhibited poor sleep quality and moderate QOL, with kidney transplant patients showing better outcomes compared to those on dialysis or medical treatment. These findings highlight the importance of tailored nursing interventions, health education programs, and strategies to improve sleep quality, physical activity, and overall QOL among CKD patients.

**Keywords:** *Chronic kidney disease, Sleep quality, Quality of life, Physical activity, Sri Lanka*

## PP 37

### Study on Dietary Habits and Activity Levels of Nursing Officers in the National Hospital of Sri Lanka in Relation to Health Promotion

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**Background:** Nursing officers play a critical role in healthcare delivery, yet their own dietary habits and physical activity levels can impact their health and ability to provide care. Understanding these patterns is essential for promoting healthier lifestyles among hospital staff. This study aimed to investigate the dietary habits, fast food consumption patterns, and activity levels of nursing officers at the National Hospital of Sri Lanka, and to identify factors influencing these behaviors in relation to health promotion.

**Methods:** A cross-sectional quantitative study was conducted involving 341 nursing officers from ICUs, wards, theaters, and clinics. Data on socio-demographic characteristics, work experience, duty shifts, dietary sources, frequency and type of fast-food consumption, fruit and vegetable intake, and physical activity levels were collected using a structured questionnaire. Descriptive statistics were analyzed using SPSS 23.

**Results:** The majority of participants were female (87.39%) and aged 26–35 years (76.25%), with most holding a Diploma in Nursing (53.2%) and working in wards (43.9%) or ICUs (40.6%). A high prevalence of fast-food consumption was observed (98.3%), with rolls and kottu being the most common types, primarily consumed during evening tea. Dietary habits showed irregular fruit consumption (42.1% consumed fruits 1–2 days per week) but regular vegetable intake (61.8% consumed vegetables 6–7 days per week). Activity levels were generally low, with 57% reporting no vigorous activity and 47.93% reporting no moderate activity; however, 63.91% walked daily. The frequency of night and 24-hour duty shifts influenced both dietary habits and activity levels. Only 3.5% of participants reported ongoing treatment for illness, with COVID-19 and gastritis being the most common conditions experienced.

**Conclusion:** Nursing officers exhibit high fast-food consumption, irregular fruit intake, and limited physical activity, highlighting the need for targeted health promotion interventions. Strategies including nutritional education, improved availability of healthy food options, structured physical activity programs, and workload management may enhance the health and well-being of nursing staff, thereby improving overall patient care outcomes.

**Keywords:** *Dietary Habits, Activity Levels, Nursing Officers, Health Promotion, Fast Food Consumption*

## PP 38

### Critical Care Nurses' Knowledge and Practices of Sepsis Care Bundles at National Hospital of Sri Lanka: An Investigation into Practices and Awareness Levels

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**Background:** Sepsis is a leading cause of morbidity and mortality worldwide. The use of sepsis care bundles has been shown to improve patient outcomes; however, their successful implementation depends largely on nurses' knowledge, awareness, and practice. This study aimed to assess the knowledge and practices of critical care nurses regarding sepsis care bundles at the National Hospital of Sri Lanka (NHSL).

**Method:** A descriptive cross-sectional study was conducted among 189 critical care nurses at NHSL using a self-administered questionnaire. Data were analyzed using descriptive statistics, correlations, regression analysis, and ANOVA to determine the influence of organizational support, awareness, environmental, and physical factors on bundle implementation.

**Results:** The majority of respondents were aged 50–60 years (60.3%), followed by 20–30 years (15.9%) and 30–40 years (15.9%), while 7.9% were 40–50 years. Gender distribution was balanced, with 50.3% female and 49.7% male participants. Regarding marital status, 51.3% were single and 48.7% married. Attention and Sepsis Care Bundle Plans: A negative correlation was observed, with  $r=-0.215$  and a significance of 0.003. Awareness and Environmental Factors: The correlation was weak and not significant, with  $r=-0.030$  and a significance level of 0.684. Sepsis Care Bundle Plans and Environmental Factors show the relationship was weak and not statistically significant, with  $r=0.096$ . The study's results demonstrated highly significant positive correlations indicating that organizational support, environmental factors, and awareness are crucial determinants influencing the effective adoption of sepsis care bundles

**Conclusion:** The study revealed that although critical care nurses at NHSL demonstrated awareness of sepsis care bundles, challenges such as inadequate resources and organizational barriers hindered optimal implementation. Strengthening organizational support, addressing physical barriers, and enhancing continuous education are essential to improve adherence and patient outcomes.

**Keywords:** *Sepsis care bundles, Critical care nurses, Organizational support, Awareness, Implementation barriers*

## PP 39

# Knowledge and Practice of Data Protection in Health Information Related to Medical History and Care Provided to Patients among Nurses in Teaching Hospital, Karapitiya: A Quantitative Cross-Sectional Study

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**Background:** Health information includes patient records, diagnostic results, and treatment details, and its protection is a fundamental responsibility of healthcare providers. Nurses, as frontline caregivers, play a critical role in ensuring the confidentiality, privacy, and security of patient data. However, concerns remain about the adequacy of knowledge and practices in maintaining these standards. This study aimed to assess the knowledge and practices of nurses on data protection of health information in the Teaching Hospital, Karapitiya.

**Methods:** A quantitative descriptive cross-sectional study was conducted among 295 nurses, selected using a stratified sampling method. Data were collected through a structured self-administered questionnaire and analyzed using IBM SPSS version 27.

**Results:** Regarding knowledge, 85.7% of nurses recognized that access to medical records should be governed by law, and 84.3% acknowledged that non-medical information is also confidential. In contrast, 36.2% believed policies allowed free access to medical records, and 34.5% agreed confidentiality could be breached for contagious diseases. Overall, 53% demonstrated average knowledge, while 12% showed poor knowledge.

In terms of practice, 70.6% never sent patient information online, and 77.8% never discussed patient conditions with friends outside the workplace. However, 29% sometimes discussed patient conditions in front of others, and 25% reported leaving patient information on desks. Only 2.7% always stored patient data on personal computers, though 16% did so sometimes. These findings indicate moderate practices with notable gaps in safeguarding confidentiality.

**Conclusion:** Although most nurses showed awareness of legal and ethical aspects of data protection, lapses in daily practices highlight the need for stronger training, policy reinforcement, and technological support. Continuous professional development is recommended to strengthen compliance and ensure patient trust in the healthcare system.

**Keywords:** Confidentiality, Privacy, Data Protection, Nurses, Patient Information



## **The Knowledge and Attitude of Mothers about Age-Appropriate Coverage of the Routine Immunization Schedule at the Vaccine Clinic, General Hospital, Nuwara Eliya**

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**Background:** Immunization is a cost-effective and essential public health intervention that prevents infectious diseases and reduces childhood mortality. Mothers' knowledge and attitudes are critical determinants of adherence to the Expanded Program on Immunization (EPI). This study aimed to assess the knowledge and attitudes of mothers with children under five years regarding age-appropriate coverage of routine immunization at the Vaccine Clinic, General Hospital, Nuwara Eliya.

**Methods:** A descriptive cross-sectional study was conducted among 100 mothers of under-five children attending the vaccine clinic. Participants were selected using simple random sampling. Data were collected using a self-administered structured questionnaire and Child Health Development Records to evaluate maternal knowledge, attitudes, and children's immunization status. Data analysis was performed using Microsoft Excel, with results categorized into knowledge, attitude, and practice levels.

**Results:** A majority of mothers (73%) reported obtaining vaccination information from village health commissioners, while 21% relied on health professionals, and only 2% on mass media. About 91% of mothers adhered to the recommended EPI schedule, while 9% reported delays, mainly due to mild illnesses (6%) or lack of awareness about specific vaccines (3%). Regarding knowledge, 65% of mothers demonstrated high knowledge of vaccine-preventable diseases, 25% moderate knowledge, and 10% low knowledge. In terms of attitudes, 80% expressed positive attitudes toward vaccination, 15% neutral, and 5% negative. Maternal education was strongly associated with knowledge and adherence to the schedule.

**Conclusion:** Overall, maternal knowledge and attitudes toward childhood immunization were satisfactory, though gaps remain in awareness of specific vaccines, timing, and dosage. Health education programs, with greater emphasis on vaccine-preventable diseases, are recommended to improve adherence. Increased use of mass media and audiovisual methods can further enhance maternal awareness and ensure comprehensive immunization coverage.

**Keywords:** *Mothers' Knowledge, Immunization, EPI Schedule, Vaccine Coverage, Under-five Children*

## **The Nurse's Knowledge, Practice, and Associated Factors towards the Prevention of Surgical Site Infections in the Surgical Ward of the Teaching Hospital, Anuradhapura**

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**Background:** Surgical site infections (SSIs) are one of the most frequent healthcare-associated infections, posing significant risks to patient safety and imposing additional burdens on healthcare systems. Nurses play a crucial role in SSI prevention through adherence to aseptic techniques and evidence-based perioperative practices. This study aimed to assess nurses' knowledge, practices, and associated factors towards SSI prevention in the surgical wards of the Teaching Hospital, Anuradhapura.

**Methods:** A descriptive cross-sectional study was conducted among all nursing officers working in the surgical wards of the Teaching Hospital, Anuradhapura. Data were collected from February to June 2023 using a structured, pre-tested questionnaire consisting of three parts: demographic data, knowledge assessment, and practice evaluation. Statistical analysis was performed using SPSS version 26, applying descriptive statistics, chi-square tests, t-tests, and regression analysis at a 95% confidence interval ( $p < 0.05$ ).

**Results:** A total of 218 nurses participated. The majority were female (78.5%) with 6–10 years of experience. Most respondents demonstrated adequate knowledge in preoperative skin preparation (72.3% preferred chlorhexidine) and prophylactic antibiotic administration (85.1% within one hour before surgery). However, significant gaps existed in practices such as patient preoperative bathing (44.8%) and consistent adherence to aseptic wound care. Training exposure showed a positive association with knowledge and practice levels. Nurses with higher educational qualifications and longer work experience demonstrated better adherence to SSI prevention protocols.

**Conclusion:** Although overall knowledge levels were satisfactory, variations in practices highlight the need for targeted educational interventions, continuous professional development, and institutional support to strengthen SSI prevention efforts. Enhancing nurses' adherence to evidence-based practices will reduce SSI incidence and improve perioperative patient safety.

**Keywords:** *Surgical Site Infection, Nurses, Knowledge, Practice, Prevention, Perioperative Care*

## PP 42

# Knowledge and Attitudes towards Gender Based Violence among Nurses in a District General Hospital in Central Province

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**Background:** Gender-based violence (GBV) is a pervasive issue in both human rights and public health. In order to identify and assist victims, healthcare professionals, especially frontline nurses, must be prepared, which is dependent on their knowledge, attitudes, and institutional support. The goal is to evaluate the nurses' attitudes and level of knowledge regarding GBV at District General Hospital, Nuwara Eliya.

**Methods:** A pretested, self-administered multiple-choice questionnaire (MCQ) comprising four sociodemographic items, eight knowledge items, and eight attitude items was used in a descriptive cross-sectional study. 152 nurses in permanent employment made up the probability sample (response rate 100%). SPSS was used to enter and analyse the data (version 22). IIHS provided ethical clearance, and the hospital administration gave its consent.

**Results:** The majority of participants were female (126/152; 82.9%), between the ages of 20 and 30 (136/152; 89.5%), and had a diploma (120/152; 78.9%); 120 (78.9%) said they had provided care for women who had been victims of domestic or sexual abuse. 136 nurses (89.5%) were classified as having "good" knowledge, with a mean knowledge score of 4.77 (SD = 0.95; range 2–6). 147 nurses (96.7%) showed a good attitude towards caring for GBV sufferers, with attitude scores ranging from 4 to 14 (SD = 2.09). Notwithstanding these encouraging results, the research identifies gaps in institutional processes, practical readiness, and abilities that restrict victim identification and assistance.

**Conclusions:** The study suggests focused training, the use of transparent procedures and flowcharts, easily accessible educational materials, and leadership support to improve identification, referral, and care pathways, even though nurses in this context often exhibit good knowledge and favorable attitudes regarding GBV. A single-site sample that restricts generalizability is one of the limitations.

**Keywords:** *Gender-based Violence, Nurses, Knowledge, Attitudes, Cross-sectional*

## Knowledge, Attitudes, and Practices Regarding Healthcare Waste Management among Healthcare Assistants in A District General Hospital In the Central Province

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**Background:** Healthcare waste management is a vital component of hospital infection prevention and control programs. Despite guidelines established by the World Health Organization (WHO), many hospitals in Sri Lanka continue to face challenges in implementing proper waste segregation and disposal. The study aimed to assess the knowledge, attitudes, and practices regarding healthcare waste management among healthcare assistants in a District General Hospital in Nuwara Eliya, Central Province.

**Methods:** A descriptive cross-sectional study was conducted among 152 healthcare assistants selected using probability sampling. Data were collected using a pretested, self-administered questionnaire covering socio-demographic characteristics, knowledge, attitudes, and practices related to healthcare waste management. Statistical analysis was performed using SPSS version 22 with descriptive analysis and categorical comparisons.

**Results:** Among the 152 participants, the majority were female (60.7%) and aged 41–50 years (42.7%). Most (72.7%) had education up to GCE (O/L). Knowledge was limited, with 53.3% demonstrating poor knowledge and only 46.7% showing good knowledge. Attitudes were predominantly positive, as 96.7% agreed on the importance of proper waste management and 91.9% supported the use of color-coded segregation. However, safe practices were inconsistent: although 89.7% reported using color-coded bins, only 61.3% regularly disinfected biomedical waste, and just 35.8% had attended formal training sessions. Unsafe practices such as improper disposal of sharps persisted in more than half (53.3%) of respondents, reflecting a gap between awareness and practice.

**Conclusion:** The study concludes that while healthcare assistants demonstrate positive attitudes towards healthcare waste management, their knowledge remains limited and practices are inadequate. Interventions such as regular training programs, continuous monitoring, and stricter enforcement of waste segregation protocols are recommended to improve compliance and reduce occupational hazards.

**Keywords:** *Healthcare Waste, Knowledge, Attitudes, Practices, Hospital Infection Control*

## PP 44

### Knowledge and Attitudes Regarding Use of Analgesic Drugs among the Public in the Katugastota Area, Kandy, Sri Lanka

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**Background:** Pain is a common experience that leads many individuals to self-administer analgesic drugs, often without adequate medical knowledge or advice. Misusing these medications raises the risk of side effects and other issues. This study aims to assess the public's understanding and views on using pain relief medications in the Katugastota area of Kandy, Sri Lanka.

**Method:** In the Katugastota population, 385 people over the age of 18 took part in a descriptive, cross-sectional quantitative study. Researchers collected data on demographic characteristics, knowledge, and attitudes about analgesic drug use by distributing a self-administered questionnaire with 25 sections. Descriptive statistics were used to analyze the data.

**Results:** Findings showed that 74% of respondents used painkillers without enough knowledge, while 67% reported using them without medical advice. Overall, only 32% had adequate knowledge, and 42% had positive attitudes toward safe painkiller use. In contrast, 68% had poor knowledge and 58% had poor attitudes. Easy access, low cost, and regular self-prescription were the main reasons for misuse. The results highlight the urgent need for public health education to clear up misunderstandings and encourage safe drug practices.

**Conclusion:** Most of Katugastota's population had negative views and limited knowledge about using analgesic drugs, leading to widespread abuse. To lower health risks, health professionals should focus on awareness campaigns and provide guidance on the safe and responsible use of analgesics.

**Keywords:** *Analgesics, Knowledge, Attitudes, Self-medication, Katugastota*

## PP 45

### **Knowledge, Attitudes, and Practices on Non-Pharmacological Pain Management Methods among Nurses at a Selected Hospital in Monaragala District**

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**Background:** A common and distressing symptom that greatly affects patients' quality of life is pain. Although many people rely on medications, non-drug pain management methods offer less harmful, safer, and more affordable alternatives. In Sri Lanka, however, there is limited information about nurses' knowledge, attitudes, and practices (KAP) concerning these methods. This study aimed to assess nurses' understanding of non-drug pain management at Monaragala District General Hospital.

**Method:** A quantitative, descriptive, cross-sectional study of 200 nursing professionals between the ages of 25 and 50 was carried out. A systematic, self-administered questionnaire addressing sociodemographic, awareness, attitudes, and practices was utilized to gather data, and convenience sampling was used. Descriptive statistics (mean scores, percentages, and frequencies) were used to analyze the data. Before any data was collected, informed consent and ethical approval were obtained.

**Results:** 82% of the 104 surveys sent were completed. 60% of the participants were female, and their average age was 39. The results showed that 38% of nurses had a decent understanding of non-drug methods, 3% had very good knowledge, and 59% had poor knowledge. Only 5.9% of respondents regularly used non-drug techniques, while 95.3% reported using at least one of them, such as position changes, massage, heat or cold, and reassurance. While attitudes were generally positive, heavy workloads, lack of training, and time limits made practical use challenging. The findings highlight a significant gap between awareness and regular practice.

**Conclusion:** Despite generally positive views, the study found that nurses in Monaragala had inconsistent practices and little awareness of non-drug pain management techniques. To improve patient outcomes and reduce reliance on medication, training programs, ongoing professional education, and including these techniques in everyday nursing care are essential.

**Keywords:** *Non-pharmacological Pain Management, Nurses, Knowledge, Attitudes, Practice, Monaragala*

## PP 46

### Assessment of Knowledge, Attitude and Practice about First Aid among Preschool Teachers in Kurunegala District, Sri Lanka

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**Background:** Preschool teachers are the first responders in emergencies involving young children, who are very vulnerable to injuries. In Sri Lanka, the inclusion of formal first aid training in early childhood educator preparation is still limited. This study has assessed the first aid knowledge, attitudes, and practices of preschool teachers in the Kurunegala district.

**Method:** A cross-sectional study involved 100 preschool teachers chosen through simple random sampling. We collected data using a validated, self-administered questionnaire that included demographic information, first aid knowledge, attitudes measured on a 5-point Likert scale, and self-reported practices. We calculated descriptive statistics using SPSS version 25.

**Results:** The majority of participants, 58%, had not received any first aid training during their professional education. Knowledge scores were moderate and varied, with mean scores for specific scenarios ranging from 1.40 to 1.64 out of 3.0. Significant knowledge gaps were found. For example, only 29% knew to use cold water for burns, and 24% correctly identified the Heimlich maneuver for a choking child. A negative Cronbach's alpha of -0.057 showed high response variability. More than half, 57%, of the teachers worked in rural preschools, which reported greater resource limitations.

**Conclusion:** Preschool teachers in the Kurunegala district have inadequate first aid knowledge and training. This weakness affects emergency readiness and child safety. The findings highlight a pressing need for mandatory, hands-on first aid training in teacher certification programs. It is especially important to address the resource gap between rural and urban areas. Regular refresher courses and policy changes are suggested to improve child safety in preschool settings.

**Keywords:** *First Aid, Preschool Teachers, Knowledge, Attitude, Practice, Sri Lanka*

## **Mothers' Knowledge and Practices of Iron Deficiency Anemia during Pregnancy in Miriswaththa MOH Area, Galle District, Sri Lanka**

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**Background:** Iron deficiency anemia (IDA) is a major health concern during pregnancy, linked to adverse maternal and neonatal outcomes such as preterm birth, low birth weight, and postpartum complications. Rural communities often have lower awareness and preventive practices. This study assessed the knowledge and practices of pregnant mothers regarding IDA in the Miriswaththa MOH area, Galle District, Sri Lanka.

**Method:** A descriptive cross-sectional study was carried out among 50 pregnant mothers selected through convenience sampling. Data were collected using an interviewer-administered questionnaire and analyzed with descriptive statistics, correlation, and regression models using SPSS.

**Results:** Most participants (72%) reported eating four meals per day, while 28% ate three meals daily. Regarding rest, 74% slept 5–6 hours per night, and 26% slept 7–8 hours. Awareness of IDA complications was high, with 94% recognizing possible risks if untreated. However, knowledge of nutritional requirements varied: 76% believed pregnant women require 10 mg of iron daily, 20% said 30 mg, and 4% said 18 mg. Similarly, 76% identified iron as essential for fetal brain development, while 20% highlighted red blood cell formation. Correlation analysis showed a strong positive relationship between socio-demographic factors and awareness of IDA symptoms ( $r = 0.826$ ,  $p < 0.01$ ). Regression analysis indicated that socio-demographic variables explained 68.2% of the variance in symptom awareness.

**Conclusion:** While awareness of IDA is generally high among rural mothers, gaps in specific knowledge and preventive practices remain. Strengthening antenatal education programs could improve maternal knowledge and reduce the burden of IDA in pregnancy.

**Keywords:** *Iron Deficiency Anemia, Pregnancy, Maternal Health, Knowledge, Practices*



## **Glycemic Control and Its Associated Factors in Patients with Type 2 Diabetes Mellitus Attending the Diabetic Clinic at Base Hospital, Puttalam**

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**Background:** Type 2 Diabetes Mellitus (T2DM) is a major non-communicable disease worldwide, with poor glycemic control contributing to morbidity, mortality, and economic burden. In Sri Lanka, the prevalence of T2DM is rising, but little is known about the factors influencing glycemic outcomes in local communities. This study assessed glycemic control and its associated factors among patients attending the diabetic clinic at Base Hospital, Puttalam.

**Methods:** A descriptive cross-sectional study was carried out among 384 randomly selected T2DM patients. Data were collected using an interviewer-administered questionnaire covering socio-demographic, dietary, behavioral, and institutional aspects, while clinical records provided fasting blood sugar (FBS), HbA1c, BMI, and cholesterol data. Analysis was performed using SPSS version 22, with Chi-square tests applied at  $p < 0.05$ .

**Results:** Poor glycemic control was highly prevalent: 60.9% of patients had uncontrolled FBS, and 68.5% had HbA1c  $> 7\%$ . Over half (53.6%) had unhealthy BMI, and 36.2% showed poor cholesterol control. Females (54.3%) achieved better glycemic outcomes than males (37.6%), while younger patients  $\leq 50$  years had poorer control (65.2%) compared to older patients (46.4%). Low physical activity (51.6% reported none), inadequate fruit and vegetable intake (35.4%), and harmful habits (20.1%) were strongly associated with poor outcomes. Institutional gaps included inconsistent dietary counseling (60.4% not regularly advised).

**Conclusion:** Glycemic control among T2DM patients at Base Hospital, Puttalam, is suboptimal, influenced by socio-demographic, clinical, lifestyle, and institutional factors. Improved education, dietary guidance, and promotion of physical activity are essential to reduce complications and enhance outcomes.

**Keywords:** *Type 2 Diabetes Mellitus, Glycemic Control, Lifestyle Factors, Institutional Support, Sri Lanka*

## The Prevalence and Correlated Factors of Psychological Stress among Garment Factory Workers in Kurunegala District

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**Background:** Psychological stress is a major occupational health concern in the apparel industry, where long hours, repetitive tasks, and limited job control compromise worker well-being and productivity. This study aimed to assess the prevalence of psychological stress and its associated factors among garment factory workers in the Kurunegala District, Sri Lanka.

**Method:** A descriptive cross-sectional study was conducted among 500 workers at the Penguin Apparel Factory, aged 18–35 years. Data were collected using a self-administered questionnaire based on the Perceived Stress Scale (PSS) and analyzed with descriptive statistics, correlation, and regression using SPSS.

**Results:** The sample consisted of 51% males and 49% females. By age, 33% were 18–25 years, 32% were 26–35 years, and 35% were above 36 years. Regarding stress levels, 27.4% of workers reported low stress, 26.4% moderate, 23.4% high, and 22.8% very high, with 46.2% experiencing moderate to high stress. Living arrangements also varied: 35% lived in hostels, 32.8% with relatives, and 32.2% at home. Regression analysis indicated that personal and physical/mental stressors significantly predicted stress ( $p < 0.001$ ), explaining 84.9% of the variance ( $R^2 = 0.849$ ), while technology stressors were not significant.

**Conclusion:** Nearly half of the workers experienced moderate to high psychological stress, primarily due to financial burdens, familial responsibilities, repetitive tasks, and fatigue. Interventions such as ergonomic adjustments, stress management programs, and financial literacy workshops are recommended to reduce stress and improve workplace well-being.

**Keywords:** Psychological Stress, Garment Workers, Workplace Stress, Sri Lanka, Apparel Industry, Stress Factors

**Knowledge and Attitudes Regarding Dietary Practice among the Patients with Type 2 Diabetes Mellitus Admitted to Medical Ward, Base Hospital, Elpitiya**

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**Background:** Type 2 diabetes mellitus (T2DM) is a rapidly growing global health concern, with prevalence strongly linked to aging, urbanization, unhealthy dietary habits, and sedentary lifestyles. Effective dietary management is essential for controlling blood glucose levels, preventing complications, and reducing hospital admissions. Understanding patients' knowledge and attitudes regarding dietary practices is crucial to inform targeted interventions. The study aimed to assess the level of knowledge and attitudes regarding dietary practices among patients with T2DM admitted to the medical ward of Base Hospital, Elpitiya.

**Methods:** A descriptive cross-sectional study was conducted among 280 adults with T2DM using a convenience sampling technique. Data were collected through a structured, self-administered questionnaire consisting of demographic information, dietary knowledge, and attitudinal items. Reliability and validity of the tool were ensured through pilot testing and expert review. Data were analyzed using SPSS version 25, employing descriptive and inferential statistics.

**Results:** The majority of participants were married (70.4%), female (58.2%), and within the age group 39–60 years. Educational attainment was mainly up to GCE A/L (52.1%). Findings revealed considerable gaps in dietary knowledge: only 32.1% identified the correct protein portion, 65.7% lacked a structured meal plan, and 93.6% were unaware of the internationally approved diabetic plate model. Attitudinal assessment showed mixed outcomes while 71.8% believed a planned diet improves health and 72.1% expressed willingness to adhere to dietary guidelines, 95.3% perceived the diabetic diet as stressful. Correlation analysis highlighted that better knowledge and positive attitudes were strongly associated with adherence to recommended dietary practices.

**Conclusion:** Despite recognition of the benefits of a proper diet, most T2DM patients demonstrated poor knowledge and inconsistent practices, underscoring the urgent need for structured nutritional education and psychosocial support. Integrating dietary counseling into routine clinical care and promoting culturally relevant dietary guidelines can significantly enhance adherence and improve long-term diabetes outcomes.

**Keywords:** *Dietary Practice, Knowledge, Attitude, Type 2 Diabetes Mellitus, Sri Lanka*

## Main Factors Influencing the Occurrence of Diabetes and Behavior Change Approaches in Patients of the Bentota Hospital Diabetic Clinic

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**Background:** Diabetes mellitus is a chronic metabolic disorder influenced by a combination of genetic, environmental, and lifestyle-related factors. Poor dietary habits, physical inactivity, obesity, stress, and family history are among the major contributors to its rising prevalence in Sri Lanka. Despite the availability of treatment, many patients fail to adopt sustainable behaviour changes, which increases the risk of complications. This study was conducted to identify the main factors influencing the occurrence of diabetes among patients attending the diabetic clinic at Bentota Hospital and to explore behaviour change approaches that support effective management.

**Methods:** A descriptive cross-sectional study was carried out among patients attending the Bentota Hospital Diabetic Clinic. A total of 300 patients were included through convenience sampling, with data collected using a structured questionnaire focusing on sociodemographic details, lifestyle factors, family history, and behaviour change practices. The responses were analysed to identify common risk factors for diabetes occurrence and to assess the adoption of positive health behaviours such as dietary modifications, physical activity, and treatment compliance.

**Results:** A total of 300 patients participated in the study with a response rate of 95.7%. Of these, 225 (75%) were females and 75 (25%) were males. The age distribution showed that the majority of patients (42%) were between 41–60 years, followed by 33% above 60 years, and 25% between 20–40 years. Regarding risk factors, dietary habits emerged as the most significant contributor. Nearly 68% of participants reported high consumption of sugary foods, refined carbohydrates, and fried items as part of their routine diet, while only 21% regularly consumed fruits and vegetables. Physical inactivity was also widely observed, with 54% of patients admitting to a sedentary lifestyle and lack of structured exercise. Family history of diabetes was identified in 41% of patients, suggesting a notable hereditary influence. In addition, 29% highlighted chronic stress and irregular sleeping patterns as key factors that aggravated their condition. Obesity, measured using BMI, was present in 37% of the sample, further contributing to risk levels. In terms of behaviour change approaches, 61% of participants had initiated dietary modifications such as reducing sugar intake, limiting fatty foods, and incorporating more vegetables. About 47% reported engaging in regular physical activity, including walking, light aerobic exercises, or yoga. Medication adherence was relatively high, with 72% of participants regularly taking prescribed oral hypoglycemic agents or insulin.

**Conclusion:** The study demonstrates that both lifestyle and hereditary factors play significant roles in the occurrence of diabetes among patients at Bentota Hospital. While a majority of patients reported making positive behaviour changes, a considerable proportion continue to struggle with adherence to recommended practices. This highlights the need for culturally tailored health education and behaviour change interventions that emphasise motivation, continuous follow-up, and family support. Strengthening these approaches can enhance diabetes prevention and improve long-term disease management.

**Keywords:** *Diabetes Mellitus, Risk Factors, Behaviour Change, Lifestyle Modification, Patient Education, Bentota*

## Knowledge and Attitudes of Antibiotic Use and Antibiotic Resistance among the General Public above 20 Years in Kaluthara-South Grama Niladhari (GN) Area

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**Background:** The extensive use of antibiotics over the past decades has contributed to the emergence of resistant bacterial strains. While data from hospitalized patients are often available, information from community-based populations is limited. Assessing public knowledge and attitudes toward antibiotic use is essential for reducing antibiotic resistance.

**Methods:** A cross-sectional quantitative study was conducted among 120 adults above 20 years in the Kaluthara-South GN area, including preschool parents. Data were collected using a structured paper-based questionnaire assessing knowledge and attitudes toward antibiotic use and resistance.

**Results:** A total of 120 participants took part in the study, of which 90 (75%) were females and 30 (25%) were males. The majority of respondents (65%) were in the 20–40 year age group, while 35% were above 40 years. Most participants (85%) recognized that inappropriate use of antibiotics is a major public health concern. Similarly, 83% demonstrated positive attitudes toward appropriate antibiotic practices, including completing prescribed courses (78%), consulting a physician before taking antibiotics (80%), and avoiding self-medication (70%). Despite these favorable attitudes, several gaps in knowledge were noted. Only 60% of participants correctly identified that antibiotics are ineffective against viral infections such as influenza and the common cold. About 55% were aware of the long-term risks of antibiotic resistance, and just 50% understood that resistance can spread between individuals and within communities. A notable 40% of respondents believed that antibiotics could be discontinued once symptoms improved, while 35% admitted to purchasing antibiotics without prescriptions, and 30% reported using leftover antibiotics from previous illnesses. Awareness of global issues related to antibiotic resistance was relatively low, with only 45% of respondents acknowledging its role in increasing healthcare costs, prolonging hospital stays, and contributing to higher morbidity and mortality rates. Additionally, 25% believed antibiotics could be used to prevent infections in healthy individuals, reflecting persistent misconceptions.

**Conclusion:** The findings reveal that while the majority of participants had good attitudes toward antibiotic use, there are knowledge gaps regarding resistance. Educational programs targeting the community can help improve awareness, encourage responsible antibiotic use, and reduce the risk of resistance, ultimately improving public health outcomes.

**Keywords:** *Antibiotic use, Antibiotic resistance, Knowledge, Attitudes, Public awareness, Kaluthara*

## Knowledge on Pressure Ulcer among Nurses in Indira Gandhi Memorial Hospital, Male, Maldives

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**Background:** Pressure ulcers, also called bedsores, are localized injuries to the skin and underlying tissues caused by pressure, shear, or friction, particularly in immobile patients. They are a major contributor to prolonged hospital stays, increased healthcare costs, and reduced patient quality of life. Although up to 95% of pressure ulcers are preventable with appropriate interventions, international studies have shown that nurses often have inadequate knowledge of prevention and management. In the Maldivian context, limited research exists. Indira Gandhi Memorial Hospital (IGMH), the largest tertiary care facility in the Maldives, provides an ideal setting to assess nurses' knowledge of pressure ulcer prevention and management, which is critical for guiding educational programs and improving patient outcomes.

**Methods:** A descriptive cross-sectional study was conducted among nurses working at Indira Gandhi Memorial Hospital, Male. Participants were selected using stratified random sampling across different wards and units. Data was collected using a structured, self-administered questionnaire developed based on the National Pressure Injury Advisory Panel (NPIAP) guidelines. The questionnaire covered risk factors, preventive measures, and management of pressure ulcers. Data analysis included descriptive statistics to determine knowledge levels and inferential statistics to assess associations between demographic factors and knowledge scores.

**Results:** A total of 150 nurses participated in the study, with 105 (70%) females and 45 (30%) males. The majority (60%) had 1–5 years of clinical experience, while 25% had 6–10 years, and 15% had more than 10 years. Educational levels varied, with 80% holding a diploma in nursing and 20% holding a bachelor's degree. Analysis of knowledge scores revealed that 78% of nurses correctly identified immobility, malnutrition, and moisture as significant risk factors for pressure ulcer development. About 72% were aware of the recommended repositioning intervals for at-risk patients, while only 55% correctly understood the proper use of pressure-relieving devices, such as specialized mattresses and cushions. Knowledge of staging and classification of pressure ulcers was moderate, with 58% able to identify all four stages correctly. Preventive strategies, such as skin assessment and early intervention, were recognized by 80% of participants, but evidence-based wound management practices, including appropriate dressing selection and infection control measures, were only correctly answered by 50% of nurses. Statistical analysis showed that nurses with more than 10 years of experience had significantly higher knowledge scores compared to those with less than 5 years of experience ( $p < 0.05$ ). Nurses with a bachelor's degree also scored higher than diploma holders ( $p < 0.05$ ).

**Conclusion:** Assessing nurses' knowledge of pressure ulcers at IGMH will provide essential evidence to inform the development of targeted educational interventions. Strengthening nurses' knowledge will directly contribute to improved prevention and management practices, thereby reducing the burden of pressure ulcers, enhancing patient safety, and improving the quality of care in the Maldives.

**Keywords:** *Pressure Ulcers, Nurses' Knowledge, Prevention, Management, Indira Gandhi Memorial Hospital, Maldives*

## Knowledge, Attitudes, and Practices on Diabetic Foot Care among Patients in a Diabetic Clinic at Teaching Hospital Kuliyaipitiya

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**Background:** Diabetes mellitus is a chronic metabolic disorder associated with long-term complications, including diabetic foot ulcers (DFUs), which remain a leading cause of morbidity, mortality, and amputation. Proper foot care practices can significantly reduce these risks. However, gaps in patients' knowledge, attitudes, and practices (KAP) contribute to poor outcomes. This study aimed to assess the KAP regarding diabetic foot care among patients attending the diabetic clinic at Teaching Hospital, Kuliyaipitiya.

**Methods:** A descriptive cross-sectional study was conducted among 153 diabetic patients selected using convenience sampling. Data were collected using a structured self-administered questionnaire, which assessed demographic characteristics, knowledge, attitudes, and practices on diabetic foot care. Data were analyzed using SPSS version 23, applying descriptive statistics such as frequencies and percentages. Ethical clearance was obtained prior to data collection.

**Results:** The mean age of participants was  $56.0 \pm 8.7$  years, with a majority being female (57.2%). In terms of knowledge, 39.5% demonstrated excellent knowledge, 40.1% good knowledge, and 20.4% poor knowledge regarding diabetic foot care. With respect to attitudes, 69.1% showed good attitudes, while 30.9% had poor attitudes. Practices varied: 94.7% washed their feet daily, 85.9% regularly trimmed toenails straight, and 90.1% consulted a doctor for foot abnormalities. However, only 43.4% checked their feet daily for injuries, and 13.8% applied moisturizer regularly. Education level showed a significant association with knowledge and attitudes, while age was negatively correlated with both ( $p < 0.05$ ).

**Conclusion:** The findings indicate that most participants had good or excellent knowledge and positive attitudes, yet daily preventive practices such as self-inspection and moisturizing remain suboptimal. Strengthening patient education and promoting behavior change are crucial to bridge the gap between knowledge and practice. Interventions such as routine counseling, community education, and annual podiatric assessments are recommended to prevent complications and improve patient outcomes.

**Keywords:** *Diabetes Mellitus, Diabetic Foot Care, Knowledge, Attitudes, Practices*

## Knowledge and Attitudes on Exclusive Breastfeeding among Antenatal Mothers Attending the Teaching Hospital Kuliyaipitiya

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**Background:** Exclusive breastfeeding (EBF) is the most effective strategy to ensure infant health and survival. It provides complete nutrition, protects against infections, and reduces the risks of long-term illnesses. However, in Sri Lanka, lactation failure and early introduction of complementary foods continue to pose challenges. This study aimed to assess the knowledge and attitudes towards exclusive breastfeeding among antenatal mothers attending the Teaching Hospital, Kuliyaipitiya.

**Methods:** A descriptive cross-sectional study was conducted among 100 antenatal mothers aged 19–39 years, selected through convenience sampling. Data were collected using a pre-tested self-administered questionnaire assessing socio-demographic details, knowledge, and attitudes towards EBF. Analysis was performed using SPSS with descriptive statistics and chi-square tests to assess associations between demographic variables and knowledge levels.

**Results:** Most participants (36%) were in the age group of 30–34 years, and the majority were Sinhala (61%) and Buddhists (59%). Educationally, 50% had secondary education, and 59% resided in rural areas. Regarding knowledge, 58% had good knowledge, 25% excellent knowledge, and 17% poor knowledge of EBF. Attitude assessment revealed positive responses, with 96% agreeing or strongly agreeing that breastfeeding within the first hour of birth is crucial, and 98% acknowledging breastfeeding fosters a strong maternal–infant bond. However, misconceptions persisted: 52% disagreed with the early introduction of complementary foods, while 42% strongly disagreed, and 61% rejected the belief that water or fluids are needed before six months. Chi-square analysis showed no significant association ( $p > 0.05$ ) between demographic factors (age, education, ethnicity, residency, parity) and knowledge level.

**Conclusion:** The findings indicate that while antenatal mothers at Kuliyaipitiya Teaching Hospital generally possess good knowledge of exclusive breastfeeding, attitudes are not consistently at an excellent level, with certain misconceptions persisting. These results highlight the need for strengthened health education and counseling programs to improve maternal attitudes and ensure the successful implementation of exclusive breastfeeding practices.

**Keywords:** *Exclusive Breastfeeding, Antenatal Mothers, Knowledge, Attitudes, Sri Lanka*



## Factors Affecting Musculoskeletal Discomfort among Nursing Officers in Base Hospital Thambuththegama

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**Background:** Work-related musculoskeletal disorders (WMSD) affect the quality of life, turnover satisfaction, and system productivity of nurses, establishing it as a critical area in occupational health. Nurses are particularly vulnerable due to the physical demands of their work, such as lifting and transferring patients. This study aims to address the lack of local research by evaluating the factors affecting musculoskeletal discomfort and determining the prevalence of WMSDs among nurses at Base Hospital Thambuththegama, Sri Lanka.

**Methods:** The study adopted a cross-sectional quantitative descriptive design, targeting nursing officers with more than one year of employment, who were selected from various hospital units using a random sampling technique. Data were collected through a self-administered questionnaire that incorporated the Nordic Musculoskeletal Questionnaire (NMQ), a standardized tool for assessing musculoskeletal symptoms. Descriptive statistics, including measures of central tendency and variability, were employed to summarize the data, while inferential statistical methods such as chi-square tests and regression analysis were applied to examine associations between WMSDs and occupational factors.

**Results:** The overall prevalence of WMSDs among respondents was high, with 70% reporting musculoskeletal discomfort, most commonly in the back, neck, and shoulders. Significant associations were observed between WMSDs and individual factors such as age, weight, and height, as well as occupational factors like repetitive movements, with 70% of nurses indicating frequent repetitive tasks during working hours. Concerning the work environment, 40% of nurses disagreed and 30% strongly disagreed that their unit had adequate staff, while 30% disagreed and another 30% remained neutral regarding sufficient bed capacity. The study instrument demonstrated good reliability, with a Cronbach's alpha coefficient of 0.750.

**Conclusions:** The high prevalence of WMSDs highlights the considerable physical strain faced by nurses, exacerbated by factors such as long working hours, inadequate ergonomic practices, and unfavorable working conditions. These findings emphasize the urgent need for targeted interventions, including ergonomic assessments, adequate staffing, and regular training on safe patient handling and lifting techniques. Implementing such measures is crucial to safeguarding the health and well-being of the nursing workforce, improving job satisfaction, and ultimately enhancing the quality of healthcare delivery.

**Keywords:** *Work-related Musculoskeletal Disorders (WMSD), Nurses, Patient handling, Ergonomics, Prevalence*

## Value of Proper Sleep for Student Nurses in School of Nursing Matara, Sri Lanka

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**Background:** Adequate sleep is crucial for student nurses, enhancing cognitive function, emotional resilience, and physical health. In the demanding environment of nursing education, sleep quality directly impacts learning, clinical performance, and overall well-being among nursing students in Matara, Sri Lanka.

**Method:** A cross-sectional study using a structured questionnaire was conducted among 275 student nurses at the School of Nursing, Matara. Data collection focused on sleep patterns, academic performance, mental health, and physical well-being. Data collection was done by using a pretested validated questionnaire. Data analysis procedure was carried out with descriptive and inferential statistics and SPSS V23 tool used for analyzed data. Statistical analysis identified correlations between sleep quality and these variables, aiming to determine the impact of adequate sleep on students' academic and health outcomes.

**Results:** Among student nurses in the School of Nursing, Matara (n = 275), the majority (35.3%) were in the age range of 23–24 years. Female participants represented 90%, while 10% were male. Regarding sleep-related behaviours, 74.5% agreed that they fall asleep during classroom lectures, while only 1.8% strongly agreed and 0.7% strongly disagreed. About 66.2% disagreed that they have enough time for self-studies, while 4% strongly agreed and 8.7% agreed. In terms of environmental factors, 81.5% agreed and 10.9% were uncertain that the nursing training school (NTS) environment affects sleep quality. Similarly, 68.4% agreed and 21.1% were uncertain that the resident environment affects sleep quality. Most students (67.3%) resided in the NTS hostel, followed by 29.1% in boarding places, and 3.6% at home. None stayed at relatives' houses. A majority (95%) shared their room with someone, while only 5% had single rooms. In terms of sleeping arrangements, 69.8% used bunk beds, 18.2% single beds, 4.4% double beds, and 1.1% metal cots. Regarding ventilation, 71.6% used ceiling fans, 23.3% relied on windows, and 5.1% used stand fans, with no participants having access to air conditioning or other ventilation systems.

**Conclusion:** The study highlights that sleep quality is an essential factor influencing the academic performance and overall well-being of nursing students at the School of Nursing, Matara. Findings reveal that most students experience challenges related to shared living spaces, limited ventilation, and unsuitable sleeping arrangements, all of which negatively affect sleep quality. Environmental factors such as hostel conditions and room-sharing were found to have a strong impact on rest. As quality sleep is vital for concentration, learning, and safe clinical practice, addressing these issues through improved living facilities, better time management, and increased awareness about healthy sleep practices is crucial for enhancing both the academic outcomes and health of student nurses.

**Keywords:** *Sleep quality; Nursing students; Academic performance; Hostel environment; Sleep habits; Sri Lanka*

## Knowledge and Attitudes on Cataract Surgery among the Patients Who Underwent Cataract Surgery at the Teaching Hospital, Jaffna

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**Background:** Patients have a short recovery period and are discharged to their home following cataract surgery. Discharge from the hospital poses a potential threat to surgical patients' lives because they have to cope in daily life with the consequences of the illness and surgery. If cataract patients receive insufficient or inadequate knowledge of postoperative care after surgery. Then patients will be left in confusion, which leads to numerous complications. So, the patients should leave the hospital with adequate knowledge.

**Methods:** It was an institution-based descriptive cross-sectional study conducted in the eye clinic of Teaching Hospital Jaffna, Sri Lanka. There were 201 patients, and no sampling method was used. Data were collected by an interviewer-administered questionnaire. Data were analyzed using descriptive statistics, which include frequency, percentage, mean, median, and standard deviation. A bivariate relationship was analyzed by a non-parametric test.

**Results:** The results showed more than half of the participants (63.2%) had inadequate knowledge on cataract, and the overall median of knowledge on cataract was 47.37% (SD $\pm$  11.5). All the participants got scores more than 50% for attitudes, and the median of self-care following cataract surgery was 71.43% (SD  $\pm$  8.2). Different types of age (p-value <0.01) and different types of family type (p-value = 0.025) had statistically significant differences in knowledge regarding cataract. Different types of educational level (p value = 0.019) and different types of knowledge level on cataract (p value = 0.008) have statistically different attitudes following cataract surgery.

**Conclusion:** More than half of the partisans had inadequate knowledge regarding cataract, and all of them got scores of more than 50% for self-care following cataract surgery. Different types of age and different types of family types had statistically significant differences in knowledge regarding cataract. Different types of educational level and different types of knowledge level on cataract had statistically different attitudes following cataract surgery. Based on the findings, it is recommended to strengthen patient education programs and provide clear postoperative instructions to improve knowledge and self-care practices among cataract surgery patients. Involving family members and using simple educational materials can further enhance recovery outcomes and reduce postoperative complications.

**Keywords:** *Surgical Site Infections, Infection Prevention, Nurses' Knowledge, Attitudes, Practices, Patient Safety*

## Knowledge, Attitudes and Practices Regarding Surgical Site Infections and Prevention among Nurses Who Work in Surgical and Gynaecology Wards in District General Hospital-Monaragala

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**Background:** Patient safety is an important concern for all health care professionals. They all are involved in patient care. Nurses' knowledge, attitudes and practices play a significant role to control infections which ultimately enhances quality care of patients. It is estimated that up to 25% of infections can be prevented by applying knowledge and recommended practices in surgical care and as well as by applying standard precautions. Therefore, it can help prevent infections, as well as reduce the economic problems of the patients and reduce hospital costs and improve the quality of life of the patients.

**Methods:** This research study is on the Knowledge, attitudes and practices regarding surgical site infection and prevention among nurses in District general hospital-Monaragala. Descriptive cross-sectional study has been done among 100 nurses by using a convenient sampling method. In this study researchers describe the process of methodology including hypothesis, research design, population and sample, description of the tool, reliability and validity, ethical consideration and limitations. Data was collected by using a self-administered questionnaire and analyzed by using descriptive statistics such as mean, percentage, frequency. The data analysis tool was SPSS V\_26. At the end, the progress report describes the development of a questionnaire for the purpose of data collection.

**Results:** In this study, 100 nurses from surgical and gynecology wards of District General Hospital Monaragala participated, with 97% being female and the majority aged 31–40 years (35%). Most were working in surgical units (68%), had 5–10 years of experience (41%), and held a diploma in nursing (91%), while 98% had formal training in wound care. Knowledge assessment revealed that 56% identified poor perfusion, 26% poor surgical technique, and 16% lack of prophylactic antibiotics as key risk factors for surgical site infections (SSIs). Regarding attitudes, only 21% agreed that all patients are at risk for SSIs, while 43% showed less interest in SSI prevention than other nursing aspects; however, 52% agreed that hand washing is the most important preventive measure. In practice, compliance was high, with 100% always checking sterility, using facemasks, and sterile dressing materials, while 82% washed hands before gloving, and 80% washed hands before and after wound dressing. Overall, nurses demonstrated good practices but variable knowledge and attitudes.

**Conclusion:** Sri Lanka there are no studies related to this topic. Surgical site infections become a critical health issue in surgical units of hospitals in our country. But no much research attention has been paid to examining the associated factors and nurses' knowledge about it. Therefore, this study is going to identify the factors associated with surgical site infections of patients who are undergone for surgeries and knowledge regarding nurses about SSIs and prevention

**Keywords:** *Surgical Site Infections, Infection Prevention, Nurses' Knowledge, Attitudes, Practices*

## Assess Knowledge, Attitudes, Myths and Barriers and Motivational Acts Affect for Blood Donation among the Public in Theldeniya Area

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**Background:** Voluntary blood donation is essential to ensure adequate availability of blood for transfusion in the healthcare sector. There should be sufficient knowledge, positive attitudes among voluntary blood donors to maintain regular blood donations. This study aimed to assess the knowledge, attitudes, myths and barriers, and motivators regarding blood donation in the Theldeniya area in Sri Lanka.

**Methods:** A descriptive cross-sectional study was conducted among 120 people who lived in the Theldeniya area. Participants were selected by a non-random sampling technique. A self-administered questionnaire was used to collect data. The descriptive statistical method was used in data analysis.

**Results:** A total of 110 participants were included in this analysis. (Response rate 100%). Among these participants were 58% male and 42% female. Most of the participants were age range of 36-45. Only 56.4% of individuals had a previous history of voluntary blood donation. The majority had positive attitudes regarding blood donation. Knowledge regarding some aspects of blood donation is insufficient 55.5% of participants had no perfect understanding of donor criteria except basic criteria, and 75.5% had not had enough knowledge regarding blood-associated diseases. The reasons stated for not donating blood included 30.9% lack of time, 25.5% elder objection, fear of complications 19.1% and 14.5% fear of needles. 80.9% showed giving a token/gift of some memorial thing for donors and giving a day off (84.5%), 62.1% organizing blood donation campaigns as good motivational actions to enhance the voluntary blood donation.

**Conclusion:** In spite of having good knowledge, the majority of the participants had a good positive attitude towards blood donations. To enhance the practice of voluntary blood donation in the Theldeniya area, there should be awareness programs to promote knowledge and to eradicate misconceptions (barriers & myths). Advice to keep close interaction with blood donation organizers will be important to maintain continuous blood storage.

**Keywords:** *Blood, Blood Donation, Voluntary donors, Knowledge, Attitudes, Myths, Barriers*

**The Knowledge, Attitude, and Practices on Cervical Cancer Screening Test of Women of 30- 60 Age in the Ihala Millathe Gramaseva Division, Gampaha**

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**Background:** Cervical cancer is the most common malignancy among women aged 15–44 years worldwide and remains a leading cause of cancer-related morbidity and mortality in women. This study aimed to assess the knowledge, attitudes, and practices (KAP) related to cervical cancer screening among women aged 30–60 years residing in the Ihala Millathe Gramaseva Division, Gampaha District, Sri Lanka.

**Methods:** A community-based cross-sectional study was conducted among 150 women selected using purposive sampling. Data were collected using a structured, self-administered questionnaire designed to assess knowledge and attitudes toward cervical cancer screening. The questionnaire was made available in Sinhala, English, and Tamil to ensure accessibility for participants.

**Results:** More than half of the respondents (53%) were aware of cervical cancer screening, while 41% demonstrated inadequate knowledge and 6% were unsure. Approximately 40.75% expressed positive attitudes toward screening, whereas 59.25% showed negative attitudes. Of the 83 participants who had undergone screening, 57.65% demonstrated good screening practices, while 42.35% did not. Chi-square analysis revealed a statistically significant association between knowledge, attitudes, and screening practices ( $p < 0.05$ ). Correlation analysis indicated a moderate positive association between knowledge and attitudes ( $r = 0.452$ ,  $p < 0.05$ ) and between knowledge and practices ( $r = 0.593$ ,  $p = 0.026$ ). A strong positive correlation was found between attitudes and practices ( $r = 0.614$ ,  $p = 0.039$ ).

**Conclusions:** The findings suggest that improving awareness of cervical cancer screening may contribute to more positive attitudes and increased participation in preventive practices. Targeted educational and promotional interventions focusing on underserved populations in the Gampaha District could play a key role in reducing cervical cancer incidence.

**Keywords:** *Knowledge, Attitudes, Practices, Cervical Cancer Screening*

## Knowledge, Attitudes, and Practices Regarding Needle Stick Injuries among Nurses in District General Hospital, Hambantota

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**Background:** A needlestick injury is the penetration of the skin by a hypodermic needle or other sharp object that has been in contact with blood, tissue, or other body fluids prior to exposure. Although the immediate physiological effects of such injuries are often minor, they carry the serious risk of transmitting blood-borne diseases, including hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV). These infections pose significant occupational hazards to healthcare workers, particularly nurses who are frequently exposed to sharp instruments. Understanding both the risk factors and preventive practices is crucial to minimizing these injuries. This study explores the relationship between knowledge, attitudes, and practices (KAP) regarding needlestick injuries among nurses at District General Hospital, Hambantota, with the aim of identifying areas for improvement and guiding interventions to enhance workplace safety.

**Methods:** This hospital-based cross-sectional study recruited 171 nurses from a total of 300 staff members across surgical, medical, clinical, ICU, OPD, and operating theatre units, using convenience sampling. Data were collected from 154 respondents through a structured questionnaire consisting of 25 items, divided into sections on socio-demographic data, knowledge, attitudes, and practices. Statistical analysis was carried out using Microsoft Excel and SPSS version 27, applying both descriptive and inferential techniques.

**Results:** The study revealed that the majority of respondents were female nurses (80.5%), most of whom were between 25 and 35 years of age (49.4%). A significant proportion worked in surgical wards (38.3%) or medical wards (35.1%), reflecting the distribution of nursing staff in key hospital units. Overall, knowledge regarding needlestick injuries was found to be high, with 97.4% correctly identifying needle recapping as a major cause of such injuries. Despite this, a small minority (1.3%) admitted to still practicing recapping, indicating a gap between knowledge and practice. Attitudes towards prevention and management were generally positive, as more than 90% emphasized the importance of vaccination and preventive measures. However, 6.5% reported being unconcerned about needlestick injuries, suggesting a degree of complacency. In terms of practice, most nurses reported safe behaviors such as avoiding recapping, using gloves, and disposing of sharps correctly, though lapses were more frequently observed in ICU settings.

**Conclusion:** Nurses demonstrated good knowledge, positive attitudes, and safe practices overall, but gaps remain due to negligence and normalization of risks. Targeted health education and continuous training are essential to strengthen prevention efforts and reduce needlestick injuries.

**Keywords:** *Needlestick Injuries, Hospital-associated Infections, World Health Organization, Healthcare Workers, Human Immunodeficiency Virus*

## Knowledge and Practice on Prevention of Surgical Site Infection among Surgical Ward Nurses in District General Hospital Vavuniya

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**Background:** Surgical Site Infection (SSI) is a common, yet largely preventable, hospital-acquired infection that significantly impacts patient safety and surgical outcomes. Nurses, as primary healthcare providers, play a crucial role in implementing evidence-based infection control programs. This study's general objective was to assess the knowledge and practice concerning the prevention of SSI among surgical ward nurses at District General Hospital (DGH) Vavuniya, Sri Lanka.

**Methods:** A descriptive cross-sectional study design was utilized. The population consisted of surgical ward nurses working at DGH Vavuniya. Data were collected using a self-administered, structured questionnaire to measure knowledge and practice levels regarding pre-operative, intra-operative, and post-operative SSI prevention strategies. Descriptive and inferential statistics were used to analyze the level of knowledge, the level of practice, and the correlation between the two variables.

**Results:** The study analyzed data from a sample of surgical nurses at DGH Vavuniya. The findings revealed that 95% of the nurses demonstrated good overall practice in SSI prevention measures. However, a knowledge deficit was observed, with only 65% achieving a satisfactory knowledge score regarding current evidence-based SSI guidelines. Specifically, knowledge was lower in areas such as optimal prophylactic antibiotic timing and pre-operative skin preparation agents. Furthermore, statistical analysis indicated no significant correlation between the nurses' knowledge scores and their reported prevention practices ( $p\text{-value} > 0.05$ ), suggesting adherence is largely protocol-driven rather than knowledge-driven.

**Conclusions:** The high practice scores are commendable but the presence of a knowledge gap poses a risk to sustained adherence, particularly when adapting to new guidelines. The lack of correlation between knowledge and practice suggests that existing institutional protocols are effective, but underlying theoretical understanding requires improvement. It is recommended that the hospital administration implement targeted, continuous education programs focusing on the theoretical rationale and specific details of evidence-based SSI prevention to reinforce knowledge, ensuring that nurses maintain optimal standards of patient care.

**Keywords:** *Knowledge, Practice, Surgical Site Infection (SSI), Nurses, Vavuniya*



## PP 64

### Knowledge, Attitudes and Practices Regarding Breast Feeding among Pregnant Women in Antenatal Clinic General Hospital Hambantota

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**Background:** Exclusive breastfeeding for the first six months is a cornerstone of child health, offering profound nutritional and immunological advantages. Despite continuous education, there are often gaps between maternal knowledge and practical adherence to optimal feeding practices. This study aimed to assess the level of knowledge, attitudes, and intended practices concerning breastfeeding among pregnant women attending the Antenatal Clinic at General Hospital Hambantota.

**Methods:** A descriptive cross-sectional study design was employed. The study population comprised 100 pregnant mothers attending the Antenatal Clinic at General Hospital Hambantota. Data were collected using a self-administered, structured questionnaire covering demographic variables, knowledge assessment, attitude evaluation, and intended infant feeding practices. Data analysis utilized descriptive statistics to summarize the findings for the knowledge, attitudes, and intended practice variables.

**Results:** The study analyzed data from 100 pregnant mothers attending the Antenatal Clinic. Demographic findings showed the majority of participants were aged 26-30 years (31%) and 31-35 years (28%). In terms of education, 35% held a Diploma, 33% held a Certificate, and 32% held a Degree. Monthly family income was predominantly in the 50,000-79,999 LKR range (42%). The study revealed that 84% of the mothers possessed good basic breastfeeding knowledge. However, technical understanding was linked to education, with Degree holders showing the highest mean knowledge score (5.29) compared to Certificate holders (mean 4.21). Interestingly, mothers below 20 years recorded a high mean knowledge score of 5.25. All participants expressed positive attitudes toward exclusive breastfeeding. However, a significant gap was identified in formal preparation, as only 41% of the mothers had received formal breastfeeding counseling.

**Conclusions:** The universally positive attitudes and high intent toward exclusive breastfeeding provide a strong foundation for promoting this practice in the region. However, the existing knowledge gap in technical aspects, particularly influenced by lower educational levels, and the low rate of formal counseling (41%) are barriers to successful implementation. It is concluded that while basic knowledge is adequate, the antenatal services must intensify efforts to provide standardized, practical breastfeeding counseling to all mothers, regardless of their educational status, to convert positive attitudes into sustained, successful breastfeeding practices.

**Keywords:** *Breastfeeding Knowledge, Maternal Attitudes, Antenatal Education, Exclusive Breastfeeding, Hambantota*

## The Knowledge, Attitudes, and Perceptions about Acquired Immune Deficiency Syndrome among Nursing Students in a Private Healthcare

### Institute in Sri Lanka

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**Background:** Acquired Immune Deficiency Syndrome (AIDS) remains a major global public health concern, with persistent stigma despite advances in treatment and prevention. Nursing students, as future healthcare professionals, play a pivotal role in patient care and community education. Their knowledge, attitudes, and perceptions towards HIV/AIDS significantly influence the quality of care provided and the reduction of discrimination in healthcare settings. This study aimed to assess the knowledge, attitudes, and perceptions of nursing students in a private healthcare institute in Sri Lanka towards HIV/AIDS.

**Methods:** A descriptive cross-sectional study was conducted among 314 nursing students selected through simple random sampling. Data were collected using a validated self-administered questionnaire, covering socio-demographic factors, knowledge of HIV/AIDS transmission and prevention, and perceptions of HIV/AIDS patients. Responses were analyzed using SPSS version 26, with reliability confirmed through Cronbach's alpha (0.901).

**Results:** Most students demonstrated satisfactory knowledge, with 85.1% correctly identifying that coughing and sneezing do not transmit HIV, and 79% recognizing the role of female condoms in prevention. However, misconceptions persisted, as 44.3% believed antibiotics could suppress HIV symptoms. Attitudinal findings indicated that 73.9% agreed that AIDS patients may face neighborhood rejection, and 74.5% expressed discomfort interacting with HIV-positive individuals. On a positive note, 79.3% supported equal social rights for HIV/AIDS patients, and 82.5% accepted HIV screening as an essential healthcare practice despite time constraints.

**Conclusion:** Nursing students in Sri Lanka exhibited adequate knowledge of HIV/AIDS but held stigmatizing attitudes and misconceptions that could affect patient care. Targeted educational strategies and curriculum enhancements are necessary to bridge these gaps, reduce stigma, and foster empathy, thereby preparing future nurses for more inclusive and competent HIV/AIDS care.

**Keywords:** *HIV/AIDS, Nursing Students, Knowledge, Attitudes, Perceptions, Stigma, Sri Lanka*

## PP 66

# The Knowledge and Attitudes toward Infection Control Practices among Nursing Students in a Private Nursing Institute in Sri Lanka

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**Background:** Healthcare-associated infections (HAIs) affect up to 25% of hospitalized patients in developing countries, with nearly half preventable. In Sri Lanka, private-sector nursing students face unique challenges such as financial constraints for protective equipment and inconsistent clinical exposure. Their knowledge and attitudes are critical for ensuring patient safety. This study aimed to evaluate the knowledge and attitudes of nursing students in a private institute toward infection control practices.

**Methods:** A descriptive cross-sectional study was conducted among 201 systematically sampled nursing students. Data were collected using a pre-tested, self-administered questionnaire assessing demographics, knowledge, and attitudes. Data were analyzed with SPSS version 26 using descriptive and inferential statistics. Chi-square test and independent-sample t-test were applied to determine associations between demographic variables, knowledge, and attitude levels. Ethical clearance was obtained, and confidentiality was maintained.

**Results:** The study included 201 nursing students (mean age 21.2 years; 82.6% female), with representation across all academic years. Overall knowledge of infection control was high, with a mean score of 6.73 (SD = 1.81) out of 8; 78.5% of students were classified as having good knowledge, while 14.0% had moderate and 7.5% poor knowledge. Knowledge was significantly associated with gender ( $p = 0.010$ ) and year of study ( $p < 0.001$ ), with females and senior students performing better, though clinical placement and prior training showed no significant effects. Attitudes were generally favorable, with most students endorsing mandatory training, expressing confidence, and acknowledging their responsibility to educate patients and families. Nevertheless, practical barriers were common, particularly workload and time constraints (78.1%), lack of resources (76.1%), and inconsistent clinical emphasis (75.6%). Confidence and prioritization of infection control improved with academic progression ( $p < 0.001$ ). These findings mirror international evidence that nursing students possess strong theoretical knowledge but face challenges in practice, underscoring the need for structured supervision, sufficient resources, and more practical training.

**Conclusion:** Nursing students showed strong knowledge and positive attitudes toward infection control, but practical barriers hindered consistent practice. Strengthening clinical supervision, improving resources, and expanding hands-on training are essential to bridge the theory–practice gap and enhance patient safety.

**Keywords:** *Infection Control, Nursing Students, Knowledge, Attitudes, Sri Lanka*

## Exploring Mothers' Perspectives on the Cognitive Development of Children with Down Syndrome in Western Province, Sri Lanka: A Qualitative Study

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**Background:** Children with Down syndrome frequently present delays in core cognitive abilities such as communication, attention, memory, and problem-solving. Within the Sri Lankan context, mothers serve as the primary caregivers, fostering children's developmental progress. Their insights offer a valuable understanding of how cognitive needs are recognized, supported, and managed in home and community environments. Against this backdrop, the present study seeks to explore the perspectives of mothers in the Western Province of Sri Lanka regarding the cognitive development of their children with Down syndrome.

**Methods:** A qualitative approach was adopted, utilizing six semi-structured interviews and two focus group discussions involving 14 mothers with children with Down syndrome from special education centers in Colombo and Ragama. Data were audio-recorded, transcribed, and analyzed using thematic analysis.

**Results:** Analysis revealed that mothers recognized noticeable variation in their children's cognitive abilities, with particular strengths in imitation, routine-based learning, and visual understanding. Many reported that their children could follow familiar instructions and recall repetitive tasks but struggled with memory retention, verbal communication, and problem-solving. Emotional reactions such as frustration, avoidance, or dependence on prompts were observed when tasks became challenging. Mothers commonly used repetition, storytelling, visual aids, and step-by-step guidance to facilitate learning. Expectations ranged from improved self-care and communication to achieving basic literacy. Participants also identified barriers such as limited specialized services, insufficient teacher training, and societal misconceptions, while expressing a strong sense of responsibility and dedication toward their child's progress.

**Conclusion:** The study highlights a mix of hope, resilience, and practical adaptation of mothers despite everyday challenges. Their expectations are shaped by both love and a realistic understanding of their child's abilities. The findings suggest that with proper support from schools, healthcare professionals, and community networks, mothers can better nurture their children's cognitive growth.

**Keywords:** *Down Syndrome, Cognitive Development, Mothers' Perspectives, Qualitative approach, Sri Lanka, Learning Experiences, Caregiving*

## Knowledge and Attitude of First Aid for Road Traffic Accidents among Healthcare Students in Gampaha District

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Road traffic accidents (RTAs) are a major global public health concern, causing more than 1.9 million deaths annually and leading to long-term complications such as disability and psychological trauma. First aid plays a vital role in immediate management, with timely interventions during the “Golden Hour” often determining survival outcomes. Healthcare students, as future professionals, are expected to possess essential first aid skills; however, gaps in knowledge and preparedness are frequently observed. This study aimed to assess the knowledge and attitudes of healthcare students in the Gampaha District towards first aid in RTAs and to examine how their college environment contributes to the development of emergency management skills. A descriptive cross-sectional survey was conducted among 500 healthcare students using a self-administered online questionnaire. Data will be analyzed using SPSS software with descriptive statistics. The findings highlight variations in theoretical and practical knowledge, along with students’ attitudes towards first aid provision. While attitudes will remain generally positive, confidence in practical application is limited. The study will recommend structured training programs and enhanced practical exposure to strengthen first aid education within healthcare curricula, thereby contributing to more effective emergency responses and improved patient outcomes. This study highlights that healthcare students in the Gampaha District possess a moderate level of knowledge and a generally positive attitude toward first aid management of road traffic accidents. While their willingness to provide immediate assistance is commendable, certain gaps in practical knowledge and reported low confidence are to be identified. These findings could emphasize the need for enhanced training programs and regular simulations within healthcare curriculum to strengthen first aid competencies. Improving knowledge and preparedness will not only empower healthcare students but also contribute significantly to reducing morbidity and mortality associated with road traffic accidents in Sri Lanka.

**Keywords:** *First Aid, Healthcare Students, Road Traffic Accidents*

## Knowledge of Personality Disorders among Students in a Private University

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Personality disorders are enduring patterns of inner experience and behavior that deviate from cultural expectations, causing significant distress and functional impairment. Despite their potential impact on students' academic and social lives, awareness of personality disorders among university students remains low. This study aimed to assess the level of knowledge regarding personality disorders among students in a private university in Gampaha, Sri Lanka. A descriptive cross-sectional quantitative study will be conducted to assess the level of knowledge regarding personality disorders among students in a private university in Gampaha District, Sri Lanka. The study population will include nursing, physiotherapy, and biomedical students aged above 16 years, with data collected through a structured, pre-tested self-administered questionnaire distributed via Google Forms. Convenience sampling will be used, and responses will be analyzed using descriptive statistics, including mean, median, mode, and frequency percentages, with SPSS software. The study is expected to reveal limited to moderate knowledge of personality disorders among students, with most relying on informal sources such as social media rather than formal education or training. Anticipated findings will likely identify gaps in differentiating personality disorders from other mental health conditions and in recognizing symptoms, despite generally positive attitudes toward individuals affected. The outcomes aim to emphasize the importance of targeted educational interventions, mental health workshops, and the integration of comprehensive mental health modules into undergraduate curricula to improve awareness, reduce stigma, and promote early identification and support.

**Keywords:** *Personality Disorders, Knowledge, University Students, Mental Health Awareness, Sri Lanka*

## **Knowledge, Attitudes, and Practices Regarding Iron Deficiency Anemia Prevention among Female Undergraduate Students at a Private Institute**

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Women of reproductive age are disproportionately affected by iron deficiency anemia (IDA), a common public health issue. Female students are especially at risk because of menstrual bleeding, poor eating habits, as well as lifestyle changes associated with college life. The purpose of this study is to evaluate female undergraduate students' knowledge, attitudes, and practices (KAP) about IDA prevention at a particular private institution in Sri Lanka's Gampaha District. 169 participants will be chosen by stratified random sampling according to study year and age, using a descriptive cross-sectional design. A validated questionnaire that participants complete themselves, which was modified from earlier KAP research, will be used to gather data. Descriptive, along with inferential statistics, such as logistic regression and chi-square, will be used in SPSS analysis to examine correlations between KAP as well as demographic characteristics. Participation will be voluntary, with informed permission and strict secrecy maintained, and ethical approval will be acquired. It is anticipated that the study will shed light on this population's awareness, attitudes, and preventative practices, identifying any gaps that may guide institutional efforts, public health interventions, and focused health education. The results will support national efforts to lower the burden of anemia among young women and improve the eating habits, preventive measures, and general health of female students.

**Keywords:** *Iron Deficiency Anemia, Knowledge, Attitudes, Practices, Female Undergraduates, Prevention*

## **The Relationship between Violent Video Games and Adolescent Aggression in Healthcare Students at a Private Institute in Western Province, Sri Lanka**

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Video games have become a dominant form of entertainment among adolescents, raising global concerns regarding their potential influence on aggressive behaviors. Violent video games, in particular, are believed to desensitize players to violence and increase aggressive thoughts and emotions. This study will be conducted to examine the relationship between violent video games and adolescent aggression among healthcare students at a private institute in the Western Province, Sri Lanka. The objectives of the study will be to assess the prevalence of violent video game usage, to evaluate aggression levels, and to identify the relationship between gaming frequency and aggression intensity. A descriptive cross-sectional study will be carried out among healthcare students above 18 years of age who possess gaming experience. Data will be collected using a self-administered questionnaire based on the Aggression Questionnaire (AGQ), which includes dimensions such as physical aggression, verbal aggression, anger, and hostility. The sample will be selected using a simple random sampling method, ensuring equal participation opportunities. Data will be analyzed using SPSS (Version 27) through descriptive and inferential statistical methods to determine correlations between video game exposure and aggression levels. It is anticipated that the study will reveal a positive association between the duration and intensity of violent video game use and higher levels of aggression among healthcare students. The findings are expected to highlight differences in aggression based on demographic variables such as age and gender. The study will emphasize the importance of promoting balanced gaming habits and raising awareness of the psychological effects of violent games. Furthermore, the results will contribute to the development of educational and counseling programs aimed at reducing aggressive behaviors and promoting emotional regulation among young healthcare professionals.

**Keywords:** *Violent Video Games, Aggression, Adolescents, Healthcare Students, Behavioral Impact*



## Acceptance of AI Treatment Plans among Physiotherapy Students in a Private Institute in Sri Lanka

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Artificial intelligence (AI) is increasingly transforming modern healthcare by enabling data-driven treatment planning and individualized patient care. In physiotherapy, AI has the potential to assist in designing, monitoring, and adjusting rehabilitation programs based on patient-specific data, thereby improving accuracy, efficiency, and outcomes. However, the successful integration of AI technologies depends on the acceptance and readiness of future practitioners. This study will aim to assess the level of acceptance of AI-driven treatment plans among physiotherapy students in a private institute in Sri Lanka. Specifically, it will evaluate students' familiarity with AI concepts, trust in AI-generated recommendations, perceived usefulness, and willingness to integrate AI tools into their future clinical practice. A quantitative, cross-sectional study will be carried out among all physiotherapy students of the International Institute of Health Sciences using a structured, self-administered questionnaire distributed via Google Forms. The data will be analyzed using SPSS software to produce descriptive and inferential statistics, including frequencies, percentages, chi-square tests, and regression analyses to identify associations between awareness, accessibility, and acceptance. It is anticipated that most students will show limited familiarity with AI tools but a moderate level of openness toward their adoption, while concerns regarding ethical implications, data privacy, and the reliability of AI algorithms are expected to emerge as barriers. The findings will contribute to understanding how physiotherapy students perceive AI-assisted treatment planning and will provide recommendations for incorporating AI literacy and practical training into physiotherapy curricula to promote ethical and evidence-based technological integration in Sri Lankan healthcare education.

**Keywords:** *Artificial Intelligence, Physiotherapy Students, Treatment Plans, Acceptance, Healthcare Education*

**PP 73**  
**Knowledge about Leptospirosis among Nursing Students in a Private  
University in Gampaha District, Sri Lanka**

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Leptospirosis is a zoonotic bacterial infection caused by *Leptospira* spp., transmitted mainly through contact with water or soil contaminated by the urine of infected animals. It continues to pose a significant public health threat in tropical countries such as Sri Lanka, where environmental and occupational factors contribute to its spread. This study will aim to assess the level of knowledge regarding leptospirosis among nursing students in a private university in the Gampaha District, Sri Lanka. A descriptive cross-sectional study will be conducted among 234 undergraduate nursing students using a self-administered structured questionnaire consisting of five sections: sociodemographic characteristics, knowledge of causes, transmission, symptoms, treatment, and preventive practices. Data will be analyzed using descriptive statistics with the Statistical Package for the Social Sciences (SPSS) version 27. It is expected that the study will identify moderate awareness of leptospirosis transmission and prevention, along with notable knowledge gaps regarding clinical manifestations and treatment methods. Factors such as year of study and previous exposure to public health education are anticipated to influence knowledge levels. The findings of this study are expected to highlight the need for strengthening the nursing curriculum by incorporating practical, case-based learning on zoonotic diseases. Enhancing the knowledge and preventive awareness of nursing students will ultimately support more effective disease control, early diagnosis, and public health education initiatives in Sri Lanka.

**Keywords:** *Leptospirosis, Nursing Students, Knowledge, Gampaha, Sri Lanka*

## **A Study of Facilities for People with Special Needs in Public Buildings in Colombo District, Sri Lanka**

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Accessibility in public infrastructure will be considered a fundamental aspect of equality, yet many public places will continue to exhibit physical barriers that limit the participation of individuals with disabilities. This study will aim to evaluate the accessibility of public buildings for people with special needs in the Colombo District, Sri Lanka. The research will address the problem of insufficient facilities, such as ramps, elevators, accessible toilets, and appropriate signage, which will hinder independence and inclusion. A descriptive cross-sectional study design will be used, and the research will be conducted in selected public buildings, including hospitals, schools, shopping malls, and government offices. Data will be collected through direct observation using a structured checklist derived from national accessibility standards and international guidelines. The analysis will employ descriptive statistics and thematic analysis to identify patterns and evaluate the adequacy of existing accessibility features. Findings are expected to reveal that many public buildings will not fully comply with accessibility standards, especially in providing adequate ramps, signage, and toilets suitable for individuals with mobility or sensory impairments. The outcomes will guide policymakers, architects, and planners to adopt universal design principles and strengthen the enforcement of accessibility laws. This study will ultimately promote inclusive urban development, ensuring that people with special needs will experience improved independence, dignity, and participation within Sri Lankan society.

**Keywords:** *Accessibility, Public Buildings, Special Needs, Universal Design, Colombo District*

## **Association between Smartphone Usage and Neck Pain among Private University Students in Gampaha District, Sri Lanka**

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Smartphones have become an indispensable part of daily life for university students, serving as tools for learning, communication, and social interaction. However, prolonged and improper smartphone usage has been increasingly associated with musculoskeletal disorders, particularly neck pain resulting from sustained forward head posture and poor ergonomics. This study will aim to investigate the association between smartphone usage and neck pain among private university students in the Gampaha District of Sri Lanka. Specifically, it will examine the influence of smartphone usage patterns such as duration, frequency, and posture on the occurrence of neck pain, while also analyzing how demographic factors, including age, gender, and academic discipline, affect this association. A descriptive cross-sectional study will be conducted among 426 students aged 18 to 25 years who use smartphones for more than two hours per day. Data will be collected through a pre-tested, self-administered online questionnaire consisting of sections on demographic characteristics, smartphone usage patterns, ergonomic awareness, and neck pain symptoms. The collected data will be analyzed using SPSS software, with descriptive and inferential statistical techniques such as Pearson's correlation applied to identify significant relationships between variables. It is anticipated that the study will reveal a high prevalence of neck pain among frequent smartphone users, especially those maintaining poor posture and engaging in prolonged use without breaks. The results are expected to highlight inadequate ergonomic awareness and its contribution to musculoskeletal discomfort. The findings will guide the development of preventive measures, including awareness programs and ergonomic training, to promote healthier smartphone habits among university students. Overall, this study aims to contribute to the prevention of posture-related neck disorders and enhance the long-term well-being and academic performance of young adults.

**Keywords:** *Smartphone Usage, Neck Pain, Posture, Ergonomic Awareness, University Students*

## PP 76

# Isolation, Biochemical Characterization, and Molecular Identification of Thermotolerant Antibiotic-Resistant Pathogens and Superbugs in Clinical Settings

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Antimicrobial resistance (AMR) poses a major global health challenge, with multidrug-resistant pathogens increasingly implicated in healthcare-associated infections. A particularly underexplored group comprises thermotolerant, antibiotic-resistant bacteria, microorganisms capable of surviving at  $\geq 45^{\circ}\text{C}$ , which may evade standard disinfection practices and persist on high-touch hospital surfaces. This study proposes a descriptive, cross-sectional, laboratory-based investigation to isolate, phenotypically characterize, and molecularly identify thermotolerant AMR pathogens from clinical environments in Sri Lanka, thereby addressing gaps in local and global surveillance. Environmental swab samples will be collected weekly over approximately eight weeks from predefined high-touch sites, including surgical wards and intensive care units, and transported at  $4^{\circ}\text{C}$ . Samples will be enriched in tryptic soy broth with glucose at  $50^{\circ}\text{C}$  and subsequently cultured on Nutrient, MacConkey, and Mannitol Salt agars. Morphological assessment and biochemical tests, including catalase, oxidase, urease, and triple sugar iron assays, will support phenotypic identification. Antibiotic susceptibility will be determined using the Kirby–Bauer disk diffusion method (ampicillin, ciprofloxacin, tetracycline) and minimum inhibitory concentrations via broth microdilution, interpreted according to CLSI guidelines. Molecular analyses will include 16S rRNA PCR and Sanger sequencing for species-level identification, as well as targeted detection of resistance genes such as bla<sub>TEM</sub> and gyrA. Thermotolerance will be evaluated through heat-shock survival ( $50\text{--}70^{\circ}\text{C}$ ) and growth-curve analyses, while biofilm formation and in vitro virulence will be assessed using crystal violet assays under heat stress and Caco-2/HeLa cell models. Selected isolates will undergo whole-genome sequencing and proteomic profiling to identify loci associated with thermotolerance and antimicrobial resistance. Phylogenetic and statistical analyses will be performed using MEGA, PhyloSuite, SPSS, and R, applying t-tests, ANOVA, and chi-square or Fisher's exact tests where appropriate. This study is expected to reveal how common heat-tolerant, antibiotic-resistant bacteria are on hospital surfaces and how their resistance genes match their behavior. The findings will provide practical guidance for cleaning practices, antibiotic policies, and infection prevention in Sri Lanka and other similar settings, helping healthcare teams better control the spread of dangerous “superbugs.”

**Keywords:** *Antimicrobial Resistance (AMR), Thermotolerant Bacteria, Phylogenetic, Resistance Pathogens, Healthcare-Associated Infections*

## Assessing the Knowledge and Awareness of Anemia among Undergraduate Students in a Private University in Gampaha District, Sri Lanka

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Anemia, also known as iron-deficiency anemia, remains a widespread public-health issue in Sri Lanka, affecting learning capacity, well-being, and future productivity of young adults. Despite substantial attention to children and pregnant women, there is limited evidence on university students, who face diet and lifestyle changes that may elevate the risk of developing anemia. This study aims to assess the awareness and knowledge of anemia among undergraduate students at a selected private university in the Gampaha District, Sri Lanka, in order to quantify knowledge levels, identify misconceptions, and inform targeted education and prevention strategies. A cross-sectional study design will be carried out in this study. The study will be conducted at a selected private university in the Gampaha district of Sri Lanka. The study population consists of undergraduate students aged 18 to 26 years, representing both male and female genders. The study will use a simple random sampling method under the probability method. Data will be gathered using a self-administered questionnaire, distributed electronically, to ensure ease of access. The questionnaire will cover demographic details, general awareness, and knowledge of anemia, and perceptions of anemia education. This method allows participants to respond at their convenience and ensures anonymity. The data will be analyzed using Statistical software such as SPSS (Version 27). Data analysis will involve quantitative methods. This approach will provide a comprehensive understanding of the students' awareness, knowledge, and perceptions regarding anemia. This study will highlight key educational and behavioral gaps related to anemia prevention among young adults. The findings are expected to inform targeted health-literacy interventions within universities, such as curriculum enhancements, awareness workshops, and counseling services, and contribute to improved screening and referral systems.

**Keywords:** *Anemia, Iron Deficiency, Undergraduates, Awareness, Health Literacy*

## Structural and Physicochemical Property Analysis of LukS-PV Subunit of Panton-Valentine Leucocidin (PVL) Toxin, with Insights into Targeted Detoxification

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Panton–Valentine leucocidin (PVL), a bicomponent  $\beta$ -barrel pore-forming toxin of *Staphylococcus aureus*, is a key determinant of tissue damage and severe community- and hospital-acquired infections. PVL consists of the receptor-binding S subunit (LukS-PV) and the F subunit (LukF-PV), which assemble on leukocyte membranes to trigger cell lysis. Emerging evidence indicates that LukS-PV binds to C5a receptors (C5aR1/C5L2) on neutrophils, while LukF-PV interacts with CD45, with host post-translational modifications further modulating cytotoxicity. Sequence polymorphisms and phage-mediated mobility of the lukSF-PV locus, along with H/R protein variants, influence strain virulence. Antitoxin strategies, including neutralizing antibodies, intravenous immunoglobulin, and multi-component toxoid vaccines, show potential but are limited by variability in host responses and PVL expression. This study aims to develop a high-quality structural model of LukS-PV and to map functionally important domains and physicochemical hotspots, such as charge distribution, hydrophobic patches, and putative ligand-binding pockets, for potential neutralization. The present study will critically analyze the LukS-PV subunit in silico to identify structural features and residues relevant for targeted detoxification. Methods will include retrieval of protein sequence and structural data from RCSB PDB and UniProt, homology modeling using SWISS-MODEL (with optional cross-validation by AlphaFold), and model quality assessment through QMEAN scoring and Ramachandran statistics. The validated model will be interrogated in UCSF Chimera to identify surface-exposed, conserved residues, particularly in the rim domain, and assess key residues such as Tyr184, Arg73, and His245 for receptor engagement potential. Physicochemical profiling will be performed using ProtParam, and steric and geometric analyses will be conducted with MolProbity. The anticipated outcome will be a validated 3D model of LukS-PV annotated with accessible, druggable, or epitope-rich regions. This information is expected to inform the rational design of neutralizing antibodies, receptor-mimetic decoys, or small-molecule binders, and support the development of next-generation toxoid vaccines. Overall, the study aims to translate expanding mechanistic and evolutionary knowledge of PVL into actionable anti-virulence strategies, complementing antibiotic stewardship and infection-control efforts against PVL-positive *S. aureus*.

**Keywords:** *Staphylococcus aureus*, Panton-Valentine Leucocidin (PVL), LukS-PV, In-silico Analysis, Protein Structure, Physicochemical Properties, Detoxification Strategies, Homology Modeling, Swiss-Model, Chimera

## **Efficacy of Commercial Herbal and Synthetic Mouthwashes in Inhibiting *Candida Albicans* Biofilms and Fungal Growth**

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Microbial infections, particularly candidiasis caused by the fungal pathogen *Candida albicans*, represent a significant public health challenge, especially within immunocompromised populations. *C. albicans* is frequently implicated in oral candidiasis and denture stomatitis, largely due to its critical ability to form robust biofilms that adhere to surfaces. These organized communities of fungal cells are encased in an extracellular matrix, providing remarkable resistance to traditional antimicrobial substances. This resistance, coupled with the diminishing effectiveness and known adverse effects (such as tooth staining and tissue irritation) of prolonged synthetic antifungal agents and mouthwashes, necessitates the exploration of safer and cost-effective alternatives. Herbal-Ayurvedic remedies are gaining interest globally and in Sri Lanka for their potential in managing oral fungal infections. The general objective of this experimental research proposal is to evaluate and compare the antifungal and antibiofilm efficacy of commercially available herbal and synthetic mouthwashes against *Candida albicans* clinical isolates using standardized microbiological assays. The study employs an *in vitro* laboratory approach utilizing three distinct methodologies: the qualitative Well-Diffusion method to compare fungal growth inhibition; determination of the Minimum Inhibitory Concentration (MIC) to identify the lowest concentration required to inhibit growth; and the Antibiofilm assay to quantify the products' ability to prevent or disrupt established *C. albicans* biofilms. All procedures will be performed in triplicate to ensure accuracy. The findings are anticipated to quantify biofilm reduction and fungal growth suppression, providing evidence to support the efficacy of herbal products as potential safer alternatives for maintaining oral hygiene and controlling oral fungal infections in clinical settings.

**Keywords:** *Candida*, Mouthwash, Antifungal, Biofilms, Herbal



## **Pre-Examination Anxiety Levels and Coping Mechanisms among Nursing Students at a Private University**

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Examinations constitute a primary source of anxiety among university students, a stressor that is often intensified for nursing undergraduates due to the demanding nature of integrating theoretical knowledge with essential clinical practice and the pressure to demonstrate competence in patient care. Unmanaged pre-examination anxiety (PEA) can impair concentration, affect performance, and potentially compromise clinical judgment, raising concerns for future professional practice. Although local studies confirm high psychological distress among nursing undergraduates during examination periods, the existing literature primarily focuses on public universities, leaving students in private institutions, who face unique challenges such as financial costs and a competitive learning environment, as underrepresented. This research proposal, therefore, aims to address this critical knowledge gap by assessing the levels of pre-examination anxiety and identifying the coping mechanisms employed by nursing students at a selected private university in Sri Lanka. This study will employ a Cross-Sectional Design at the International Institute of Health Sciences (IIHS). Participants will be selected using Simple Random Sampling to achieve a target sample size of 217 nursing students. Data will be collected via a web-based Google Form using a self-administered questionnaire that incorporates two standardized tools: the Test Anxiety Inventory (TAI) to measure PEA (Worry and Emotionality subscales) and the Brief Cope Inventory to assess coping strategies. Descriptive statistics will be utilized for data analysis. The anticipated findings will contribute valuable evidence regarding the unique pressures faced by private university nursing students, ultimately guiding the development of targeted support programs and interventions to promote both academic success and emotional resilience.

**Keywords:** *Pre-Examination, Anxiety Levels, Coping Mechanisms, Nursing Students*

## Nursing Students' Knowledge and Role in the Care of Children with Thalassaemia

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Thalassaemia is a widespread hereditary blood disorder that presents a global health challenge, significantly impacting Asia and resulting in 80–100 children being diagnosed annually in Sri Lanka. Nursing students play a crucial part in the treatment of affected children by offering fundamental nursing care, managing iron chelation treatment, and providing patient and family education. Evaluation of their knowledge and participation is essential for advancing nursing education and improving patient care. The general objective of this research is to assess the level of knowledge and the perceived role of nursing students in the care of children diagnosed with thalassaemia at a selected nursing institution in Sri Lanka. This study employs a cross-sectional descriptive analytic design and will recruit a target sample size of 426 university students, determined using Cochran's Sample Size Formula. Data will be collected through a single-visit, self-administered questionnaire, available in both online and paper formats, requiring approximately 15–20 minutes to complete. The instrument is adapted from previously validated studies and contains five sections addressing demographic details, thalassaemia knowledge (scored 1/0), student roles and responsibilities (scored on a five-point Likert scale), clinical exposure, and confidence. Reliability will be assessed through a pilot study utilizing Cronbach's alpha, targeting a value of 0.7 or above. Statistical analysis will be performed using SPSS version 26, involving descriptive statistics to summarize characteristics and Pearson Product-Moment Correlation to test associations between demographic/clinical exposure variables and the students' knowledge and role performance. The anticipated findings will determine existing knowledge gaps and preparedness levels, ultimately informing educational changes and curriculum improvements necessary to enhance the competencies of future nurses in managing and providing holistic care for children with thalassaemia.

**Keywords:** *Thalassaemia, Knowledge, Role, Pediatric Care, Nursing Students*

## Physical Activity and Health-Related Quality of Life among Physiotherapy Students at a Private University in Sri Lanka

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The physiotherapy profession demands high levels of physical endurance and psychological resilience, yet global research indicates that academic stress, sedentary habits, and clinical workloads often lead to reduced PA levels and increased musculoskeletal discomfort among students. This study addresses the critical relationship between physical activity (PA) and Health-Related Quality of Life (HRQoL) among physiotherapy students. This research is particularly vital for Sri Lanka, given the limited local data and the rising prevalence of non-communicable diseases, emphasizing the need to ensure future healthcare advocates maintain healthy lifestyles. The general objective is to assess the relationship between PA and HRQoL among physiotherapy students. The methodology employs an analytical cross-sectional design and will be carried out at the International Institute of Health Sciences (IIHS) in Sri Lanka. Data will be collected from a sample of 50 physiotherapy students using a self-administered online questionnaire. The study utilizes two standardized instruments: the EQ-5D-5L Health Questionnaire, which assesses HRQoL across five dimensions (mobility, self-care, usual activities, pain/discomfort, and anxiety/depression), and the SF-12 Health Survey, which captures the type, frequency, and duration of physical activities. Data analysis will involve descriptive statistics and Pearson or Spearman correlation to determine the association between PA and HRQoL. The results are anticipated to bridge a crucial knowledge gap, providing insights that can inform the development of targeted interventions and wellness programs integrated into physiotherapy education to enhance students' quality of life and improve the overall healthcare system.

**Keywords:** *Physical Activity, Quality of Life, Physiotherapy Students*

## Relationship between Exposure to Aggressive Video Games and Aggressive Behaviors in a Private Institute in the Gampaha District

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Aggressive or violent video games are a popular form of entertainment among young adults, raising ongoing concerns about their potential influence on behavior. Exposure to violent game content has been linked in some studies to increased aggression, anger, and hostility, while others report minimal or no effects. In Sri Lanka, however, limited research has been conducted among healthcare students, a population expected to demonstrate emotional regulation and professional conduct. Understanding the relationship between gaming habits and aggression within this group is therefore essential for promoting student wellbeing and responsible media use. This study aims to assess the relationship between exposure to aggressive video games and aggressive behaviors among healthcare students at a selected private institute in the Gampaha District (Wattala). A descriptive cross-sectional design will be employed using simple random sampling. The study will target 245 currently enrolled students aged 18–25 years who have at least one year of gaming experience and can respond in Sinhala, Tamil, or English. Data will be collected through a self-administered Google Form, including sections on socio-demographic characteristics, gaming habits (years of play, weekly duration, preferred genres, and violent content), and aggression using selected items from the validated Buss–Perry Aggression Questionnaire (BPAQ). Data will be analyzed using IBM SPSS v27, with descriptive statistics summarizing variables and inferential tests (chi-square and correlation analyses) used to identify associations at a 0.05 significance level. The findings will offer context-specific insights into gaming-related behavioral patterns among Sri Lankan healthcare students and support the development of evidence-based strategies for student counseling, health promotion, and media literacy.

**Keywords:** *Aggressive Video Games, Violent Video Games, Aggression, Buss–Perry Aggression Questionnaire (BPAQ), Healthcare Students*

## Water Quality Assessment of the Water in the Tank and Pipeline in the Ragama Water Distribution System of Sri Lanka

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Access to safe drinking water is a critical public health concern and depends not only on effective central treatment but also on maintaining water quality during distribution and household storage. In urban Sri Lanka, water is frequently stored in overhead tanks and delivered through pipelines, where environmental factors such as sunlight exposure, temperature, and material composition can alter chemical and microbiological characteristics. These changes may reduce chlorine residuals, affect pH, and promote microbial growth, thereby posing potential risks to consumers. Understanding these variations is vital to ensuring safe water consumption and guiding preventive measures. This study aims to assess the quality of drinking water in the Ragama Water Distribution System by comparing samples collected from the municipal tank and the pipeline outlet at the International Institute of Health Sciences (IIHS), Welisara. Additionally, it examines the effect of boiling on IIHS pipeline water. The objectives are to identify differences in pH, chlorine residual, and microbial load between the two sources and to determine the extent of improvement following boiling. An observational analytical study design will be used. Samples will be collected on three nonconsecutive days, with three independent samples obtained per source per day, yielding 18 samples in total. Standard laboratory procedures will be followed: pH will be measured using a pH meter, chlorine residuals determined via titrimetric methods, and microbial load quantified through total plate count (TPC) analysis. After baseline assessment, pipeline water will be boiled and re-examined to determine the influence of boiling on quality parameters. Data will be analyzed using SPSS software, with descriptive and inferential statistics (t-tests and ANOVA) applied to assess variations between sampling points and pre-/post-boiling states. This study will provide essential insights into distribution- and household-level influences on drinking-water safety and emphasize the importance of boiling as a simple yet effective method to ensure microbiological safety under local conditions.

**Keywords:** *Chlorine Residual, pH, Microbial Load, Total Plate Count (TPC), Safe Drinking Water, Water Quality, Ragama Water Distribution System*

## **Factors Associated with Stress among Healthcare Students in a Selected Private University, Gampaha**

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Stress is a growing concern among healthcare undergraduates, largely due to their demanding academic workload, clinical responsibilities, and personal or environmental challenges that affect mental well-being, academic success, and future professional competence. Although research in many countries has highlighted the seriousness of this issue, there is limited evidence from Sri Lankan private universities, particularly in the Gampaha district. This study aims to address this gap by identifying and analyzing the key factors associated with stress among healthcare students through a descriptive cross-sectional design. A total sample of 426 students was determined using Cochran's formula and selected through random sampling from healthcare programs at the International Institute of Health Sciences. Data will be collected using a structured self-administered questionnaire adapted from previous validated tools, covering socio-demographic characteristics, academic stressors, clinical training challenges, and personal-environmental stress factors, all measured on a five-point Likert scale to determine stress levels. Data analysis will involve descriptive statistics to assess the prevalence and distribution of stress, alongside inferential statistical methods to explore associations between variables, conducted through SPSS version 26. The study also incorporates thematic analysis of qualitative responses to provide deeper insights into students' lived experiences. Ethical approval will be obtained from the institutional review committee, and strict measures will ensure voluntary participation, anonymity, and confidentiality. Anticipated findings include a high prevalence of moderate to severe stress, with significant contributions from academic pressure, clinical workload, financial difficulties, and limited social support, with female and low-income students identified as more vulnerable. By highlighting these stressors, the study is expected to provide evidence-based recommendations for developing targeted interventions such as stress-management workshops, peer support systems, counseling services, and institutional policies aimed at fostering a supportive academic environment. Ultimately, the research intends to inform strategies that strengthen student mental health, enhance resilience, and promote both academic performance and professional readiness in healthcare education settings.

**Keywords:** *Stress, Healthcare Students, Academic Workload, Clinical Training, Personal-environmental Factors, Mental Health, Coping Strategies, Private University, Sri Lanka*

## Associations between Fast-Food Consumption and Body Mass Index

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The rising consumption of fast food has been identified as a major contributor to obesity and related health concerns, with body mass index (BMI) serving as a key measure of population health. This study aimed to investigate the association between fast-food consumption and BMI among students, workers, and low-income groups in the Western Province of Sri Lanka. A descriptive cross-sectional study will be conducted to examine the association between fast-food consumption and body mass index (BMI) among students, workers, and low-income groups in the Western Province of Sri Lanka. The study will include approximately 300 participants representing diverse socio-demographic backgrounds. Data will be collected through a structured online questionnaire designed to capture the frequency and quantity of fast-food intake, BMI measurements, and other related lifestyle factors. Statistical analysis will be performed using SPSS version 26, employing descriptive statistics, chi-square tests, correlation analysis, and multiple regression to identify associations and predictors of BMI. The study is expected to reveal that frequent fast-food consumption is particularly common among young adults and students, with a significant positive relationship between higher frequency of fast-food intake and elevated BMI categories. It is also anticipated that socio-demographic variables, family dietary practices, and exposure to social media promotions will play an important role in shaping dietary behavior and BMI outcomes. The findings aim to underscore the importance of reducing fast-food consumption, raising awareness of nutritional risks, and promoting healthier dietary choices. This evidence will provide valuable guidance for policymakers, educators, and public health authorities in designing interventions to mitigate the long-term health risks linked to fast-food-driven dietary habits in Sri Lanka.

**Keywords:** *Fast Food, Body Mass Index, Obesity, Nutrition, Sri Lanka*

## **Fast Food Addiction among University Students in a Private University in Gampaha District**

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The issue of fast-food consumption has been of growing concern amongst university students as a result of its close relationships with obesity, cardiovascular diseases among other long-term health complications. The availability and popularity of fast food in Sri Lanka have resulted into an apparent change in the eating habits, particularly amongst young adults. The project set out to evaluate the prevalence and determinants of fast-food addiction in university students in one of the privately run universities in the Gampaha District. The research design used is descriptive cross-sectional study comprising of students at a university undertaking healthcare related diploma. The simple random sampling was employed to choose the participants so that they could be representative. The information was gathered using a self-administered structured questionnaire that aimed at collecting data on the demographic attributes, the frequency at which fast foods were consumed, contributing factors, and signs of addictive eating behavior. The results showed that a significant number of students displayed the signs of fast-food addiction, including repeated cravings, excessive fast-food consumption, and an emotional dependence on fast food. Some of the factors that were significantly contributing were convenience, affordability, taste preference, peer influence and academic stress. The study will help to indicate that more awareness should be created about the health effects of high fast-food intake and the encouragement of more nutritious diets among university students. The research finds that fast food addiction is an important emerging public health risk among the students of the Sri Lankan universities and that special attention should be paid to health education and behavioral interventions in higher education institutions.

**Keywords:** *Fast Food Addiction, University Students, Eating Behaviour, Gampaha District, Sri Lanka*



**Knowledge on Gestational Diabetes Mellitus among Nursing Students at a Private University in Gampaha District, Sri Lanka**

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Gestational Diabetes Mellitus (GDM) is a very common pregnancy-related complication. It is a significant health risk for both the mother and the baby if not handled properly. The nursing students, as future healthcare professionals, play a significant role in the early detection, education, and management of GDM. Assessing their knowledge is essential for identifying gaps in education and improving maternal healthcare outcomes. This study aims to assess the level of knowledge regarding Gestational Diabetes Mellitus among nursing students at a private university in the Gampaha District, Sri Lanka. A descriptive cross-sectional study will be conducted to assess the knowledge of Gestational Diabetes Mellitus (GDM) among nursing students at a private university in the Gampaha District, Sri Lanka. Data will be collected using a structured, self-administered questionnaire consisting of sections on demographic details, risk factors, screening methods, diagnostic criteria, management, complications, and sources of information. Quantitative data will be analyzed using descriptive statistics to determine the proportion of students with adequate knowledge. The study is expected to reveal varying levels of awareness, with stronger understanding of common risk factors such as obesity and family history, but limited knowledge of screening procedures, diagnostic guidelines, and long-term complications of GDM. It is also anticipated that many students will not have received formal education on GDM, with academic courses and hospital exposure serving as the main sources of information. The findings will highlight the importance of strengthening GDM-related education in the nursing curriculum, ensuring that future healthcare professionals are better equipped for early detection, prevention, and management of this condition, thereby improving maternal and neonatal health outcomes in Sri Lanka.

**Keywords:** *Gestational Diabetes Mellitus, Nursing Students, Knowledge, Risk Factors, Screening, Sri Lanka*

## The Level of Video Game Addiction among Students at a Private University, Sri Lanka

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Video game addiction has emerged as a growing behavioral concern among university students, largely influenced by the increasing accessibility of online gaming platforms and mobile technologies. This study aimed to assess the level of video game addiction among students at a private university in Sri Lanka and to identify the associated sociodemographic, academic, and psychological factors. A descriptive cross-sectional design has been employed, involving undergraduate students selected through convenience sampling. The sample size is 369. Data will be collected using a self-administered questionnaire based on validated tools such as the Game Addiction Scale (GAS) and the Internet Gaming Disorder Scale (IGDS). The questionnaire gathered information on demographic details, gaming frequency, emotional dependence, tolerance, withdrawal, and neglect of responsibilities. Descriptive statistics and correlation analyses were performed using SPSS version 26. Factors such as academic workload, stress, and peer influence showed strong associations with compulsive gaming behavior. Additionally, frequent gaming was found to negatively impact academic performance, sleep quality, and social relationships. The study highlights the urgent need for awareness programs and mental health interventions aimed at promoting responsible gaming habits and reducing the psychological and academic consequences of gaming addiction among university students in Sri Lanka.

**Keywords:** *Video Game Addiction, University Students, Behavioral Disorder, Academic Performance, Sri Lanka*

**English for Fun – Community Project**

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Despite the critical role of English for academic and professional success, a significant proportion of students in the Kelaniya education zone of Sri Lanka, particularly the 11-to-13-year-old demographic in Kerawalapitiya, struggle with practical communication skills like speaking and listening. This deficiency is largely attributable to an exam-oriented national education system that prioritizes rote memorization over communicative competency, reflecting a high percentage of students remaining at beginner proficiency levels according to national assessments. The English for Fun community project, developed and executed by Advanced Diploma students of IIHS, aimed to directly address this gap by increasing exposure to the English language and fostering confidence and creative expression in its use. The three-month intervention involved thrice-weekly, 75-minute sessions conducted outside the traditional school setting. The methodology was highly interactive, promoting the natural approach to language acquisition through engaging techniques such as scaffolding to encourage learner autonomy, role-plays, group work, fun hands-on activities, and the strategic integration of technology for listening practice. The project's effectiveness was evaluated using a pre-test and post-test comparison focusing on speaking and listening skills. The results indicated a significant positive increase in students' post-test performance and overall confidence, successfully validating the superiority of the activity-based, communicative approach over conventional teaching methods. This outcome suggests that innovative, exposure-rich programs can effectively overcome the limitations of the current curriculum, thereby improve students' overall English proficiency and broadening their opportunities for higher education and global employment.

**Keywords:** *English Proficiency, Communicative Skills, Language Acquisition, Scaffolding, Community project, Pre-and-Post Test*

## PP 91

### Knowledge on Diabetic Diet Pattern among Staff at a Private University in Sri Lanka

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Diabetes mellitus will continue to be a growing public health issue in Sri Lanka, largely driven by urbanization, lifestyle changes, and inadequate knowledge of healthy dietary practices. Dietary management will remain a cornerstone of diabetes control; however, limited awareness and adherence to nutritional guidelines among adults are expected to pose ongoing challenges to effective disease management. This study will aim to assess the level of knowledge regarding diabetic diet patterns among staff at a private university in Kerawalapitiya, Gampaha District, Sri Lanka. A descriptive cross-sectional study design will be adopted, and data will be collected from 179 participants aged 18 to 55 years through a self-administered questionnaire developed from validated tools and literature reviews. The instrument will consist of questions on sociodemographic characteristics, dietary knowledge, and management practices. Data analysis will be performed using SPSS version 27, employing descriptive statistics and Pearson's correlation to identify associations between demographic factors and dietary knowledge. The anticipated results will highlight gaps in nutritional knowledge and adherence to recommended dietary patterns, emphasizing the need for targeted education and institution-based nutrition interventions. The study will aim to contribute to the development of context-specific dietary education programs that will support effective diabetes prevention and management within Sri Lankan workplace settings.

**Keywords:** *Diabetes Mellitus, Dietary Knowledge, Nutrition Education, University Staff, Sri Lanka*

## Health Related Quality of Life Among Nursing Students in A Private Nursing Institute in Sri Lanka

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Health-related quality of life (HRQoL) reflects an individual's physical, psychological, social, and environmental well-being. Nursing students experience multiple stressors, including academic pressure, clinical exposure, and personal responsibilities, which may affect their HRQoL and future professional performance. This study aimed to assess the HRQoL and its associated factors among nursing students in a private nursing institute in Sri Lanka. A descriptive cross-sectional study will be conducted to assess health-related quality of life (HRQoL) and its associated factors among nursing students at a private nursing institute in Sri Lanka. Data will be collected from a representative sample of 169 students selected through simple random sampling, using the validated Short Form-12 Health Survey (SF-12) to evaluate physical, psychological, social, and environmental well-being. Data will be analyzed using descriptive statistics, and associations with socio-demographic characteristics will be examined using statistical tools in SPSS version 28. The study is expected to reveal moderate HRQoL among students, with lower scores in psychological well-being and vitality compared to physical functioning. It is anticipated that factors such as gender, year of study, accommodation, and financial challenges may significantly influence HRQoL. The findings aim to underscore the need for targeted institutional support, including counseling services, stress management programs, and curriculum adjustments, to enhance students' overall well-being. Strengthening HRQoL during nursing education is anticipated to contribute to the development of resilient, competent, and compassionate future healthcare professionals in Sri Lanka.

**Keywords:** *Health-Related Quality of Life, Nursing Students, Private Nursing Education, Sri Lanka, Well-Being*

## **Awareness Level, Knowledge and Attitude towards Breast Cancer among Undergraduate Students of a Private University, Sri Lanka**

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Breast cancer remains one of the most prevalent malignancies among women globally and is the leading cancer among females in Sri Lanka. Despite advancements in diagnostic and therapeutic methods, the incidence rate continues to rise due to inadequate awareness, cultural barriers, and insufficient screening practices. Early detection through breast self-examination, clinical breast examination, and mammography significantly increases survival rates, yet many women fail to utilize these preventive measures. This study will aim to assess the awareness level, knowledge, and attitude towards breast cancer among undergraduate students of a private university in Sri Lanka. A descriptive cross-sectional study will be conducted among 217 undergraduate students who will be selected using a simple random sampling method. Data will be collected through a pre-tested, self-administered online questionnaire developed based on previous validated tools. The questionnaire will include sections on demographic information, awareness and knowledge of breast cancer risk factors and symptoms, and attitudes towards prevention and screening. Data will be analyzed using the Statistical Package for the Social Sciences (SPSS) version 26, employing descriptive statistics such as frequencies, percentages, means, and standard deviations, as well as inferential tests such as the chi-square test to determine associations between awareness and demographic factors at a 95% confidence level ( $p < 0.05$ ). The study is expected to reveal the current level of awareness, knowledge gaps, and prevailing attitudes among university students regarding breast cancer and early detection methods. It is anticipated that although most students may have heard of breast cancer, their detailed knowledge of risk factors, warning signs, and screening practices may be limited. The findings will help identify the need for improved health education and awareness programs within academic institutions. By promoting knowledge and positive attitudes toward preventive behaviors, this research will contribute to fostering early detection and reducing the burden of breast cancer among young adults in Sri Lanka.

**Keywords:** *Breast Cancer, Awareness, Knowledge, Attitude, Undergraduate Students, Sri Lanka*

**PP 94**  
**Relationship Between Screen Time Usage and Symptoms of Digital Eye Strain among Healthcare Students in a Private University**

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The large-scale adoption of technologies in education and communication has gone hand in hand with the emergence of digital eye strain (DES), commonly termed as computer vision syndrome, as a major public health issue. It is believed that healthcare students' digital device dependency is a main source of various eye problems dry eyes, tiredness, and blurred vision, which are affecting their quality of life and work. This research aims to find out whether the time spent on screens is associated with the occurrence of digital eye strain symptoms in healthcare students at a private university in Sri Lanka. An analytical cross-sectional study will be conducted on students at the International Institute of Health Sciences (IIHS), Welisara, who are 18 years or older. Data on sociodemographic characteristics, screen time, ergonomic factors, and symptoms of DES will be collected through a self-administered questionnaire. About 286 people will be selected through convenience sampling. Data will be analyzed using SPSS version 26. Descriptive statistics will be applied to summarize the data, and Pearson's correlation will be employed to evaluate the association between screen time and DES symptoms. A p-value of less than 0.05 is considered statistically significant. The researchers expect that there will be a strong positive correlation between the frequency and severity of DES symptoms and long daily screen time, together with a lack of ergonomic measures. The study results are likely to widen both students' and teachers' understanding of the right use of screens and to give rise to the development of preventive strategies such as the implementation of the 20-20-20 rule and the promotion of ergonomic workplaces. The project is being carried out to lessen the eye strain of university students and increase awareness among them about poor eyesight.

**Keywords:** *Digital Eye Strain, Screen Time, Healthcare Students, Ocular Health, Ergonomics, Sri Lanka*

## The Level of Knowledge on Cirrhosis among Students in a Selected Private University

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Cirrhosis, a chronic and progressive liver disease, remains a major global health issue, leading to significant morbidity and mortality. It is primarily caused by viral hepatitis, alcohol misuse, and non-alcoholic fatty liver disease. Despite global awareness initiatives, knowledge about cirrhosis and its risk factors remains limited among young adults and university students, even in health-related disciplines. Early awareness of liver health is crucial for disease prevention and promoting healthy behaviors. The objective of this study is to assess the level of knowledge on cirrhosis among students in a selected private university and to identify factors influencing their awareness and understanding of the disease. A descriptive cross-sectional study was conducted among undergraduate and postgraduate students of the International Institute of Health Sciences (IIHS), Sri Lanka. A structured, self-administered online questionnaire consisting of four sections: sociodemographic data, knowledge, risk factors and prevention, and awareness, was distributed to participants. The sample size of 426 students was determined using Cochran's formula, and participants were selected through non-probability convenience sampling. Data were analyzed using SPSS version 26, applying descriptive statistics such as frequencies and percentages, and inferential tests (chi-square, correlation) to explore associations between educational level and cirrhosis-related knowledge. The study concludes that the level of knowledge on cirrhosis among university students is insufficient, highlighting the urgent need for educational interventions in tertiary institutions. Encouraging liver health education in curricula, promoting awareness programs, and encouraging early screening for liver diseases could significantly enhance students' understanding and contribute to long-term public health improvement.

**Keywords:** *Cirrhosis, Liver Disease, Student Knowledge, Health Education, Sri Lanka*



**Prevalence of Risk Factors for Treatment Default among Tuberculosis Patients of Chest Clinic in National Hospital for Respiratory Diseases, Welisara, Sri Lanka**

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Tuberculosis (TB), caused by *Mycobacterium tuberculosis*, remains a leading cause of morbidity and mortality worldwide, with treatment default posing a major challenge to disease control and contributing to multidrug-resistant TB (MDR-TB). Although Sri Lanka reports comparatively lower TB prevalence, treatment non-adherence continues to undermine national TB control efforts, particularly among patients with comorbidities and socio-economic vulnerabilities. This study aimed to assess the prevalence of risk factors associated with treatment default among TB patients attending the Chest Clinic of the National Hospital for Respiratory Diseases, Welisara. A descriptive cross-sectional study design was adopted, using a validated self-administered questionnaire distributed to a simple random sample of 100 patients undergoing anti-TB treatment. Data were collected on demographic, social, psychological, economic, and clinical variables, and analyzed to identify risk factors contributing to treatment interruption. Findings revealed that forgetfulness, inadequate knowledge about TB and its treatment, adverse drug side effects, smoking, alcohol use, comorbidities such as diabetes mellitus and hypertension, low income, difficulties in transport, weak family support, and social stigma were the most prevalent factors linked with default. Older patients, males, and those with significant side effects or limited resources were particularly vulnerable. Despite the implementation of directly observed therapy (DOT), barriers related to socio-economic conditions and patient perception continued to affect adherence. The study concludes that improving patient education, strengthening psychosocial support, addressing economic barriers, and enhancing defaulter tracing systems are essential to reduce treatment default and prevent the emergence of MDR-TB in Sri Lanka. These findings provide critical evidence to inform future policy, patient-centered interventions, and strategies aimed at strengthening TB control programs.

**Keywords:** *Tuberculosis, Treatment Default, Risk Factors, Adherence, Sri Lanka*

## **The Usage of Social Media for Enhancing Knowledge of Nursing Procedure among Nursing Students in Private University: A Qualitative Study**

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Social media has rapidly evolved into a powerful platform for information sharing, interaction, and collaborative learning, with over 62% of the world's population actively engaged on platforms such as YouTube, Facebook, Instagram, and WhatsApp. In the context of nursing education, these tools provide easily accessible demonstrations of clinical procedures, opportunities for peer-to-peer learning, and direct engagement with professionals across the globe. While international evidence suggests that social media can enhance nursing students' knowledge and skills, the Sri Lankan context remains underexplored. Traditional nursing education often lacks flexibility and fails to fully address the diverse learning needs of students, creating a gap that social media may bridge. This study therefore aims to explore how undergraduate nursing students perceive and utilize social media for enhancing their knowledge of nursing procedures, and to identify both the benefits and challenges associated with its use. A qualitative phenomenological study design will be employed to capture in-depth experiences. Purposive sampling will recruit 15 students currently enrolled at the International Institute of Health Sciences (IIHS), Sri Lanka, who actively use social media for educational purposes. Data will be collected through semi-structured interviews and analyzed thematically to generate key themes and subthemes. It is anticipated that the study will highlight social media's role as a supplementary educational resource, enabling students to strengthen clinical knowledge, improve critical thinking, and access up-to-date global practices. At the same time, issues such as misinformation, information overload, and difficulty assessing content credibility are expected to emerge as challenges. By providing evidence-based insights, this study will contribute to improving the integration of social media into nursing curricula in Sri Lanka and may inform broader strategies for digital learning in healthcare education.

**Keywords:** *Social Media, Nursing Education, Qualitative Study, Clinical Skills, Sri Lanka*

**Knowledge and Attitude Regarding Sex Education among Advanced Level (A/L) Students in Nugegoda, Colombo District, Sri Lanka**

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This research addresses a concerning lack of comprehensive knowledge and healthy attitudes regarding sex education among young adults, particularly in South Asian countries like Sri Lanka, where cultural taboos limit discussions on sex and contribute to insufficient reproductive health knowledge. This situation can lead to increased rates of unintended pregnancies, sexually transmitted infections (STIs), and risky sexual behaviors, as evidenced by statistics showing only 24% of women (aged 15–24) in Sri Lanka have comprehensive HIV/AIDS knowledge, and 3.0% of teenage girls aged 15-19 began childbearing in 2016. The study's primary aim is to assess the knowledge and attitudes towards sex education among Advanced Level (A/L) students in Nugegoda, Colombo District, Sri Lanka. Specifically examining their understanding of sexual health, contraception, and STIs, and their perceptions of existing sex education programs. A cross-sectional study will be conducted among 384 Advanced-Level students, aged 18-21 years, from select private educational institutions in the Colombo District, utilizing a non-probability convenience sampling method. Data will be collected through a self-administered, structured, online questionnaire, translated into Sinhala and Tamil, ensuring participant consent and anonymity, with ethical approval from the International Institute of Health Sciences. The collected data will be analyzed using descriptive statistics and Likert scales via SPSS version 25. This study is expected to contribute to the existing literature by identifying knowledge gaps and influencing factors, thereby informing educators, policymakers, and healthcare professionals to develop more effective and tailored comprehensive sexuality education programs that promote positive sexual behaviors and improve public health among young adults in Sri Lanka.

**Keywords:** *Sex Education, Knowledge, Attitudes, Advanced Level Students*

**Knowledge, Attitude and Practices of Breastfeeding: A Comparative Study of Mothers in Urban and Suburban Communities in Gampaha District, Sri Lanka**

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The provided research appears to be an excerpt from a research proposal or literature review related to breastfeeding practices, particularly focusing on the differences between urban and rural mothers in the Gampaha district of Sri Lanka. The key points covered include the importance of breastfeeding in preventing childhood illnesses, research gaps, research questions, and objectives of the study. The literature review section discusses various studies related to breastfeeding knowledge, attitudes, and practices among mothers in both urban and rural settings, emphasizing the need for interventions to improve breastfeeding rates, especially in urban areas. Two studies looked at the practices and knowledge of mothers in various situations in caring for their newborns and nursing. In the first study carried out in Nepal, postpartum moms showed strong vaccination knowledge but poor understanding of infant feeding, caring for the cord, and identifying symptoms of sickness in neonates. Nursing procedures weren't up to par. The majority of moms in the second trial, conducted in a semi-urban setting, had favorable views and strong breastfeeding expertise. Rural mothers breastfed their children 75.8% of the time compared to urban mothers who did so 43.5% of the time. Overall, urban and rural mothers' knowledge and attitudes were comparable, highlighting the need for actions focused at improving urban nursing practices and attitudes. In the conceptual framework these are the independent variable knowledge, professional influence. The Gampaha District of Sri Lanka will see a cross-sectional study that is descriptive in nature and will look at breastfeeding practices in both urban and rural locations. The purpose of the study is to compare the breastfeeding practices, attitudes, and knowledge of mothers in these areas. In order to determine the cultural, societal, and geographic elements influencing breastfeeding practices, data will be gathered through surveys and interviews. The study population comprises mothers who are willing to become mothers or who are currently pregnant, as well as mothers who breastfeed who are knowledgeable about breastfeeding or not. Mothers who do not breastfeed and mothers from regions other than Gampaha are excluded. It is not stated how the study sample will be selected by probability or by non-probability. In order to support appropriate baby feeding, this study intends to educate public health activities.

**Keywords:** *Breastfeeding, Mothers, Urban, Rural, Sri Lanka*

## **Students' Perception on Weekly Internal Clinical Presentations Delivered Online and Physically at a Private Institute in Gampaha District**

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Clinical presentations are widely recognized as an integral component of nursing education, as they encourage students to apply theoretical knowledge into practice, develop clinical reasoning, improve communication skills, and enhance confidence in professional settings. In recent years, the shift towards digital learning has introduced new opportunities and challenges for both students and educators, particularly in balancing the advantages of online platforms with the interactive nature of physical classroom experiences. Considering this transformation, it becomes vital to understand students' perspectives on the relative value of online and face-to-face presentations to strengthen teaching strategies and improve academic outcomes. The objective of this study is to assess students' perceptions of weekly internal clinical presentations delivered in both online and physical modes at a private nursing institute in the Gampaha District. A descriptive cross-sectional study will be carried out among 92 nursing students, who will be selected through a stratified random sampling technique to ensure representation across different student groups. Data will be collected using a pre-tested, self-administered questionnaire designed to capture demographic details, levels of engagement, perceived effectiveness, challenges encountered, and preferred modes of learning. The responses will be analyzed using SPSS software, and findings will be summarized through descriptive statistics such as frequencies, percentages, and means. It is anticipated that students will express diverse perceptions, with many likely to value face-to-face presentations for their immediacy, interpersonal interaction, and opportunities for peer learning, while online presentations may be regarded as more convenient and flexible but hindered by issues such as technological problems, reduced interaction, and communication barriers. The study further expects to highlight common difficulties including time constraints, lack of motivation, and variations in group dynamics, while also drawing attention to possible strategies for improvement such as better scheduling, enhanced facilitation, and increased technological support. Ultimately, the findings are expected to provide insights that will guide the adoption of a blended presentation model that integrates the strengths of both online and physical methods, thereby promoting student-centered learning and improving the quality of clinical education.

**Keywords:** *Students' Perception, Clinical Presentations, Online Learning, Physical Learning, Nursing Education*

## PP 101

# A Study of Triage Nurses' Competence in Knowledge and Practice on Skills Regarding Cardiac Triage Decisions at the National Hospital of Sri Lanka

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Triage nurses play a pivotal role in emergency departments, where early recognition of cardiac emergencies is crucial to patient safety and outcomes. Cardiac conditions are often unpredictable and life-threatening, requiring high levels of knowledge, clinical decision-making, and technical competence, yet there is limited evidence on triage nurses' competence in Sri Lanka. This study aimed to evaluate the competence of triage nurses in cardiac-related decision-making by assessing their theoretical knowledge, practical skills, and the association between socio-demographic variables and competence levels. A quantitative, cross-sectional descriptive correlational study will be conducted at the Emergency Department of the National Hospital of Sri Lanka. Data will be collected from 50 triage nurses using a structured, self-administered questionnaire developed in line with the 2015 Guidelines on Accident and Emergency Care Services and the Australian Triage Scale. The tool will consist of 30 multiple-choice questions and 10 structured questions, and the data collection process will be complemented by five days of clinical observation. Data will be analyzed using SPSS and Microsoft Excel 2019. It is expected that the study will explore triage nurses' levels of theoretical knowledge and practical skills in cardiac triage, identify potential gaps in areas such as ECG interpretation, critical thinking, and decision-making confidence, and examine associations between competence levels and socio-demographic variables. The findings are anticipated to highlight the influence of factors such as formal triage training, years of experience, professional qualifications, attitudes, and communication skills on competence. This study aims to emphasize the need for structured and continuous professional development in cardiac triage, and it is expected that investment in advanced training programs, mentorship, simulation-based learning, and stress management will enhance nurses' competence, enabling them to make accurate and timely triage decisions and ultimately improve patient safety and outcomes.

**Keywords:** *Cardiac Triage, Emergency Nursing, Nursing Competence, Triage Decision-Making, ECG Interpretation, Sri Lanka, Emergency Department*

**Assess the Stress Level of Healthcare Students at Clinical Placements in a Private Institute in Gampaha District, Sri Lanka**

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Clinical placements are a fundamental component of healthcare education, offering students the opportunity to apply theoretical knowledge in real-world settings while building clinical competence, professionalism, and teamwork skills. However, such experiences can also expose students to stressful situations that negatively influence their academic performance, mental health, and overall well-being. In Sri Lanka, particularly within the Gampaha District, private healthcare students face additional challenges, including overburdened hospitals, limited resources, cultural expectations, and an excessive academic workload; yet, there is limited research exploring these stress levels in the local context. This study aimed to assess the stress levels of healthcare students during clinical placements at a private institute in the Gampaha District and to highlight the implications for their emotional, mental, and academic outcomes. A quantitative, descriptive cross-sectional study will be conducted among 138 healthcare students enrolled in Nursing, Physiotherapy, and Biomedical Science programs at the International Institute of Health Sciences (IIHS), Gampaha District. Using stratified random sampling, 103 participants will be selected. Data will be collected through the Perceived Stress Scale (PSS) and analyzed using SPSS version 27. The study is expected to assess the prevalence and severity of stress among students during clinical placements and to identify major academic, clinical, and social stressors influencing their experiences. It is anticipated that the findings will highlight the impact of stress on students' emotional well-being and academic performance, emphasizing the need for effective coping strategies and stronger institutional support. The outcomes will provide valuable evidence to guide educators and policymakers in developing interventions that reduce stress, foster resilience, and promote healthier learning environments in Sri Lanka's private healthcare education sector.

**Keywords:** *Stress Level, Clinical Placements, Healthcare Students, Private Institute, Gampaha District*

## Knowledge and Awareness on Takotsubo Cardiomyopathy among Healthcare Students

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Takotsubo Cardiomyopathy (TC), also known as “Broken Heart Syndrome,” is a transient cardiac disorder that closely mimics the symptoms of a myocardial infarction but occurs in the absence of coronary artery obstruction. This condition is characterized by temporary weakening and ballooning of the left ventricle, leading to an abnormal shape resembling a Japanese octopus trap, or “takotsubo.” It is most commonly observed in postmenopausal women and is often triggered by emotional or physical stress. Despite its increasing recognition globally, awareness and understanding of TC remain limited among healthcare professionals and students in Sri Lanka. Misinterpretation or lack of awareness of this condition may lead to diagnostic errors and delayed management in clinical practice. Therefore, enhancing the knowledge of future healthcare professionals regarding TC is vital to improving diagnostic accuracy and patient outcomes. This study aims to evaluate the effectiveness of an educational program in improving knowledge and awareness of Takotsubo Cardiomyopathy among healthcare students in Sri Lanka. A cross-sectional study will be conducted among healthcare students pursuing Advanced Diplomas in Nursing, Physiotherapy, and Biomedical Sciences at the International Institute of Health Sciences (IIHS), Welisara, and IIHS Multiversity, Kerawalapitiya, Sri Lanka. A total of 426 participants will be selected using a convenient sampling technique. Data will be collected through a self-administered, web-based questionnaire designed to assess students’ knowledge and educational perspectives regarding Takotsubo Cardiomyopathy before and after the educational intervention. The questionnaire will comprise three sections: demographic data, knowledge assessment, and educational perspectives, with its reliability confirmed by a Cronbach’s alpha coefficient of 0.79. Data will be analyzed using SPSS version 25, employing descriptive statistics and paired pre- and post-test comparisons to evaluate changes in awareness and understanding following the educational session. The study is expected to demonstrate a statistically significant improvement in students’ knowledge and awareness of Takotsubo Cardiomyopathy after exposure to the educational program. These findings will emphasize the importance of incorporating focused educational sessions on less common but clinically significant cardiac conditions into healthcare curricula. Enhancing student awareness through structured education can contribute to early recognition, accurate diagnosis, and improved management of Takotsubo Cardiomyopathy in future clinical practice.

**Keywords:** *Takotsubo Cardiomyopathy, Healthcare Students, Educational Intervention Knowledge and Awareness*



**Sports Safety Awareness among Adolescents in Udubaddawa Divisional Secretariat, Kurunagala District, Sri Lanka**

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Sports participation offers numerous physical, psychological, and social benefits for adolescents, promoting overall well-being, improved fitness, and enhanced social skills. However, inadequate safety awareness significantly increases the risk of preventable injuries, especially among adolescents in rural regions like Udubaddawa Divisional Secretariat in Kurunegala District, Sri Lanka. These injuries can lead to long-term consequences, affecting the health and development of young athletes. This study aimed to assess the level of sports safety awareness among adolescents in this region, focusing on their knowledge of safety rules, use of protective equipment, warm-up and cool-down routines, first aid skills, and recognition of overtraining or heat exhaustion symptoms. A descriptive cross-sectional study will be conducted to assess the level of sports safety awareness among adolescents in the Udubaddawa Divisional Secretariat, Kurunegala District, Sri Lanka. The study population will consist of 92 adolescents aged 13–18 years, selected from three government schools. Data will be collected using a pre-tested, self-administered questionnaire covering knowledge of safety rules, use of protective equipment, warm-up and cool-down routines, first aid skills, and recognition of overtraining or heat exhaustion symptoms. Reliability will be ensured through pilot testing and Cronbach's alpha measurement, and data will be analyzed using descriptive statistics with SPSS version 26. It is expected that the study will identify gaps in awareness, particularly regarding protective equipment and first aid procedures, while highlighting areas of moderate knowledge such as warm-up and cool-down practices. The findings are anticipated to emphasize the need for targeted school-based educational programs and policy interventions to enhance sports safety awareness, reduce preventable injuries, and promote a safer sporting environment for adolescents in rural Sri Lanka.

**Keywords:** *Sports Safety, Adolescents, Awareness, Injury Prevention, Sri Lanka*

## **The Surgical Ward Nurses' Knowledge and Practices Regarding the Surgical Site Infections in the Teaching Hospital, Anuradhapura**

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Surgical Site Infections (SSIs) remain a leading cause of postoperative morbidity, extended hospital stays, and increased healthcare costs worldwide. Nurses, being at the frontline of perioperative care, play a vital role in preventing SSIs through evidence-based practices. However, limited research in Sri Lanka has explored nurses' knowledge and practices in SSI prevention. This study aims to assess the knowledge, practices, and associated factors of surgical ward nurses at the Teaching Hospital, Anuradhapura, regarding SSI prevention. A descriptive cross-sectional study will be conducted among all eligible nursing officers working in surgical wards at the Teaching Hospital, Anuradhapura. A total population sampling approach will be applied. Sample size will be 218, and data will be collected using a validated, structured self-administered questionnaire consisting of demographic details, knowledge, and practice items related to SSI prevention. Statistical analysis will be carried out using SPSS version 26, applying descriptive statistics, Chi-square tests, t-tests, and regression analysis. It is expected that while nurses demonstrate moderate to high knowledge on SSI prevention, gaps will be identified in translating knowledge into consistent practice. Factors such as years of experience, training, and workload are anticipated to influence adherence. These findings will provide insight into areas requiring targeted educational and policy interventions. The study will generate evidence on surgical ward nurses' knowledge and practices regarding SSI prevention in Sri Lanka. The results are expected to guide interventions aimed at strengthening perioperative nursing care, reducing the incidence of SSIs, and improving patient safety outcomes.

**Keywords:** *Surgical Site Infection, Nurses' Knowledge, Nursing Practice, Infection Prevention, Anuradhapura*

**Factors Influencing the Knowledge of Vitiligo among Nursing Students in the Western Province, Sri Lanka**

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Vitiligo is a chronic autoimmune skin disorder characterized by the progressive destruction of melanocytes, leading to depigmented macules and patches. Despite being a non-contagious condition, misconceptions and stigma surrounding vitiligo remain prevalent, particularly in communities with limited awareness. This study aimed to assess the knowledge of vitiligo among nursing students in the Western Province of Sri Lanka and to identify the factors influencing their knowledge levels. A descriptive cross-sectional study will be conducted among 300 nursing students at the International Institute of Health Sciences, Welisara, to assess their knowledge of vitiligo and identify factors influencing their understanding. Data will be collected using a pre-tested, self-administered questionnaire covering socio-demographic variables, knowledge-related questions, and influencing factors. Analysis will be carried out using descriptive statistics and inferential tests with SPSS version 25 at a significance level of  $p < 0.05$  and a 95% confidence interval. The study is expected to reveal varying levels of awareness regarding vitiligo, with gaps in knowledge about its etiology, clinical features, and treatment options. It is anticipated that factors such as academic year, exposure to patients with vitiligo, and prior educational experiences will significantly influence knowledge levels. The findings aim to highlight the need for targeted educational interventions and dermatology-focused modules in nursing curricula to enhance awareness, reduce misconceptions, and improve care for individuals living with vitiligo in Sri Lanka.

**Keywords:** *Vitiligo, Knowledge, Nursing Students, Awareness, Western Province*

## PP 107

### Reflection on Administering NG Tube Feeding and Medication to a Pneumonia Patient

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**Description:** During my clinical placement as a second-year student nurse in the Intensive Care Unit (ICU) of a reputed private hospital in Wattala, I participated in the care of a 72-year-old male diagnosed with bilateral pneumonia. On May 21, 2025, at around 10:00 a.m., his condition deteriorated, and he was transferred from the medical ward to the ICU. Due to his low platelet count, elevated C-reactive protein (CRP) levels, and difficulty swallowing, he required a nasogastric (NG) tube for feeding. Under the supervision of a senior nurse, I was assigned to administer a 450 ml NG feed. I confirmed the tube placement using the auscultation method by infusing air and listening for a “whooshing” sound in the epigastric area. After confirming correct placement, I flushed the tube with 50 ml of water, then slowly administered 320 ml of the prescribed nutritional feed using a syringe. I closely observed the patient for any signs of discomfort. Afterward, I diluted 750 mg of crushed levofloxacin in 30 ml of water and administered it through the NG tube, followed by a 50 ml water flush to prevent blockage. The patient was kept in a semi-Fowler’s position throughout and remained stable and comfortable. I documented the procedure and informed my supervisor.

**Feelings:** Before the procedure, I felt nervous because the senior nurse was observing me, but I was also excited to apply my theoretical knowledge in a real ICU environment. Once I mentally reviewed each step, I felt more prepared. During the task, my confidence increased as the senior nurse guided me calmly. I stayed focused and ensured each step was done safely. After completing the procedure successfully, I felt proud and grateful for the opportunity. The experience motivated me to improve my clinical competence further.

**Evaluation:** The experience had many positive outcomes. I successfully implemented the NG tube feeding process using correct techniques such as verification by auscultation, aseptic handling, and proper flushing. The patient tolerated both feed and medication well without any complications. My communication with the senior nurse was effective, and I followed the hospital’s protocol accurately. However, I faced minor challenges, such as hesitation about the correct dilution of medication for NG administration, which caused a slight delay. This showed me the importance of improving preparation and time management before clinical procedures.

**Analysis:** This experience enhanced my understanding of the importance of preparation, infection prevention, and adherence to clinical guidelines. Following aseptic technique is essential to prevent infection in vulnerable patients, especially those with pneumonia and low immunity (WHO, 2021). Ensuring correct tube placement prevents aspiration and other complications (NICE, 2022). The Nursing and Midwifery Council (NMC, 2023) also emphasizes the nurse’s responsibility to maintain safety, accuracy, and dignity in all care activities. This reflection highlighted the need for sound clinical judgment and critical thinking in every nursing procedure.

**Conclusion:** Administering NG feeding and medication under supervision was a valuable learning experience that strengthened my clinical skills and confidence. I applied theoretical knowledge effectively, maintained aseptic technique, and prioritized patient comfort. This experience helped me understand the vital nursing role in ensuring patient safety and the importance of supervision, teamwork, and clear communication.

**Action Plan:** To further improve, I plan to practice NG procedures regularly under supervision and participate in skill labs for better technical accuracy. I will review hospital policies, attend workshops on infection control, and seek continuous feedback from mentors. Keeping a weekly reflective journal and following Gibbs’ cycle will help me monitor my progress. I aim to deliver safe, efficient, and compassionate care by combining learning, reflection, and collaboration in future clinical practice.

## PP 108

### Reflection on Challenges Faced during Nasogastric Tube Insertion in a Semi-Conscious Patient

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**Description:** This reflection is based on an incident I experienced during my clinical placement in the radiology ward of a private hospital in Colombo. The patient, Mr. M, was an elderly semi-conscious male transferred from the ICU for an abdominal CECT scan. He was intubated with a nasopharyngeal oxygen tube and exhibited restlessness, often attempting to remove his oxygen line, which required restraint. During the procedure, the ICU doctor attempted nasogastric (NG) tube insertion, but multiple attempts failed due to mucus obstruction and tube coiling inside the throat. My responsibility was to stabilize the patient's head and assist in maintaining alignment throughout the process. After several attempts and continuous suctioning, the tube was successfully advanced into the stomach, confirmed, and used to administer contrast for the scan.

**Feelings:** Before the procedure, I felt anxious and responsible, knowing the patient's condition was critical. During the repeated failed attempts, I became tense and worried about potential complications. However, after the successful insertion and stabilization of the patient, I felt relieved and professionally satisfied.

**Evaluation:** This incident provided valuable hands-on experience in assisting with NG tube insertion. I observed effective teamwork among the healthcare staff, where coordination and communication were crucial for managing the patient safely. However, repeated failed attempts increased tension and risk, highlighting the need for improved positioning techniques and verification methods. Despite the challenges, I gained confidence and insight into managing high-pressure clinical situations.

**Analysis:** Research emphasizes that proper head alignment and the "sniffing position" improve first-attempt success in NG tube insertions, especially in semi-conscious or intubated patients (Mohan et al., 2023). Studies by Sanaie et al. (2020) and Chen et al. (2020) support using the SORT maneuver, ultrasonography, or fluoroscopy for accurate placement. Continuous suctioning and combined verification methods such as ETCO<sub>2</sub> and pH testing can prevent airway misplacement (Ceruti et al., 2022; Heidarzadi et al., 2020). Applying these evidence-based approaches could have reduced procedural difficulty and risk.

**Conclusion:** This reflection emphasized the importance of patient positioning, teamwork, and vigilance in ensuring safe NG tube insertion. Supporting the patient's head correctly and maintaining focus directly contributed to procedural success. Continuous learning and collaboration are key to preventing complications in critical care settings.

**Action Plan:** In future practice, I will ensure proper patient positioning using supports such as pillows, emphasize effective teamwork, and communicate clearly with colleagues during procedures. I will practice evidence-based techniques, regularly reflect on outcomes, and seek further supervised training to strengthen clinical skills and promote patient safety.

## PP 109

### Reflection on the Removal of a Urinary Catheter in a Post-Cesarean Patient

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**Description:** While on clinical placement in the maternal ward of a private hospital in Wattala, I was instructed to remove the urinary catheter of a 28-year-old woman who had recently undergone a Cesarean section. The patient was stable, able to walk, and ready for catheter removal. Under the supervision of the senior nurse, I gathered the necessary equipment, explained the procedure, obtained consent, and performed the removal using proper aseptic technique. The procedure was completed successfully without complications, and the patient remained comfortable throughout.

**Feelings:** At first, I felt nervous and slightly anxious because it was my first time removing a catheter from a patient. However, I was also eager to perform the task correctly. During the procedure, I felt more confident as the patient was cooperative and my senior nurse was supportive. After completion, I felt happy, relieved, and proud of myself for managing the situation effectively and maintaining professional conduct.

**Evaluation:** This experience was a valuable learning opportunity. I successfully applied my theoretical knowledge to practice, maintained aseptic technique, and communicated well with the patient. The patient's cooperation and the supervisor's guidance ensured a positive outcome. The only difficulty was my initial nervousness, which slightly delayed my preparation. The experience highlighted that confidence improves through practice and supervision.

**Analysis:** Practical nursing procedures, such as catheter removal, require both technical precision and emotional readiness. Training and observation help students overcome anxiety and perform efficiently. Effective communication with patients enhances trust and comfort. Following standard hospital protocols and obtaining consent are crucial to ensure safety and ethical responsibility. The experience strengthened my understanding of the relationship between clinical skill development and patient-centered care.

**Conclusion:** This reflection taught me the importance of preparation, adherence to aseptic standards, and clear patient communication in performing catheter removal. It helped me understand how confidence grows through guided practice and supervision. The experience improved my clinical competence and encouraged me to continue building skills through reflection and continuous learning.

**Action Plan:** I plan to continue practicing under supervision to refine my clinical skills and reduce anxiety during procedures. I will review hospital protocols regularly, seek feedback from senior nurses, and record my reflections to track progress. Additionally, I aim to observe and assist with similar procedures to increase confidence and develop a stronger understanding of patient safety and care quality.

## Reflection on the Administration of IV Meropenem to a Post-Operative Patient with Urosepsis

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**Description:** During my clinical placement at the Emergency Treatment Unit of a private hospital in Wattala, I was instructed to administer an intravenous (IV) dose of Meropenem 1g to a 69-year-old female post-operative patient who had undergone a hemicolectomy for bowel cancer. The patient showed signs of urosepsis, including vomiting, shoulder pain, and reduced urine output, with a significantly elevated CRP level of 490. Under supervision, I prepared the drug following aseptic technique, diluted it properly with normal saline, and administered it through an IV burette. The patient tolerated the procedure well without complications; however, I forgot to check for medication allergies before administration, a key safety step in drug preparation.

**Feelings:** At first, I felt nervous and anxious because it was an emergency procedure and my first time handling such a critical patient. During the process, I focused on the technical steps and felt more confident after successfully mixing and administering the medication. However, after realizing I had skipped the allergy check, I felt embarrassed and disappointed in myself. The senior nurse's calm and supportive supervision helped me feel reassured and motivated to improve my performance and attention to safety in future procedures.

**Evaluation:** The experience had both positive and negative aspects. On the positive side, I administered the drug correctly, maintained aseptic technique, and followed the prescription accurately. The patient responded well, and the supervising nurse provided effective guidance. On the negative side, I failed to verify the patient's allergy status and skipped the third dose check due to the emergency pressure. These oversights could have led to serious consequences if the patient had an allergy. This incident emphasized the need for systematic medication safety checks regardless of the situation's urgency.

**Analysis:** The root cause of my mistake was my focus on technical performance rather than holistic patient safety. Time pressure and lack of emergency experience contributed to my oversight. Literature highlights that medication errors often occur under stressful conditions when nurses neglect fundamental checks such as allergy verification and triple-dose validation. This event made me understand that theoretical knowledge alone is not enough; practical exposure, emotional control, and structured safety routines are equally essential. The supervision and feedback I received reinforced the value of mentorship and adherence to professional standards in high-pressure settings.

**Conclusion:** This experience taught me that accuracy, calmness, and systematic practice are essential in nursing care, especially during emergencies. I realized the importance of always completing allergy checks, triple verifications, and following all medication protocols regardless of stress. By integrating theoretical knowledge with hands-on skills, I can ensure safe, efficient, and responsible nursing practice in future scenarios.

**Action Plan:** I plan to develop a structured checklist for IV medication administration, ensuring all safety checks especially allergy verification are completed. I will seek feedback from senior nurses, attend workshops on medication safety, and participate actively in clinical training. I also aim to practice stress management strategies to stay calm during emergencies. Continuous self-reflection, mentorship, and adherence to protocols will strengthen my confidence and competence in clinical decision-making.

## PP 111

### Reflection on the Importance of Patient Safety and Supervision during Physiotherapy Session

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**Description:** During my placement at a well-known private hospital in the Colombo District, I assisted a 71-year-old male stroke patient in the physiotherapy unit. The patient was recovering well but required support with strengthening exercises for his right side. Under the supervision of a senior physiotherapist, I provided a range of motion exercises and gradually introduced resistance training. When I increased the weight to 2 kg, the patient lost balance while lifting the dumbbell, and it fell near his feet. The senior physiotherapist corrected me for not providing proper support, emphasizing patient safety. I immediately apologized to the patient and ensured his comfort by assisting him correctly during the remaining exercises.

**Feelings:** At first, I was eager and confident as I got the opportunity to assist that patient. Even though I was confident at first, I was panicking and anxious that I would mess up things during the procedure. As the incident occurred, I was unhappy and felt irresponsible because it happened as I did not pay attention well to that matter. Later, after the senior physiotherapist corrected me, I was at ease but felt embarrassed at the same time.

**Evaluation:** This experience was both challenging and educational. Although I initially failed to anticipate the patient's balance issues and did not provide timely assistance, the incident helped me realize the importance of maintaining constant supervision and clear communication with patients during therapy. It also highlighted the need for better preparation and understanding of each patient's physical limitations before progressing with exercises. The positive aspect is that I learned to adapt quickly after the mistake, ensuring the patient's safety and comfort.

**Analysis:** This incident highlights that effective communication and support are important in ensuring patient safety during physical therapy interventions. Moreover, the need for adapting treatment strategies is necessary. The aspects of adaptation include recognizing the signals that indicate that the treatment approach needs to be changed, which particularly holds relevance in cases involving individuals with neurological disabilities.

**Conclusion:** Reflecting on the incident, I realized that proper preparation and ongoing evaluation of a patient's physical ability are critical components of effective physiotherapy practice. This situation highlighted my need for further theoretical understanding and application. Patient safety must always be the top priority during the treatment session.

**Action Plan:** I will improve my practical skills and knowledge by actively participating in clinical placements, seeking feedback, and attending training sessions. To enhance communication, I will listen carefully, speak clearly, and show empathy when interacting with patients. Above all, I will prioritize patient safety by following protocols, documentation, and maintaining a high standard of care.



## PP 112

### Reflection on Clinical Preparedness and Independent Practice in Physiotherapy

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**Description:** I was at placement at a leading hospital in Colombo. Two patients arrived simultaneously. The supervisor treated one patient, and I was asked to treat the other patient, who was a 55-year-old with neck pain. The supervisor asked me to prescribe isometric neck exercises to the cervical area, but I couldn't perform them at that moment. The supervisor intervened and completed the treatment and later scolded me.

**Feelings:** Before the session, I felt nervous, eager, and worried about treating the patient independently. During the treatment, I experienced panic, confusion, and self-doubt as I struggled to perform the prescribed exercises. Afterward, I felt embarrassed and frustrated, but I also felt determination to improve and reflected on how I could handle similar situations better in the future.

**Evaluation:** I had the opportunity to practice independently and learned valuable techniques from the supervisor's demonstration, which was a positive outcome. However, my lack of preparation caused a gap in the treatment, and receiving negative feedback affected my confidence, highlighting the areas I need to focus on for improvement.

**Analysis:** I realized that preparation and confidence are key elements in clinical practice, as they ensure effective patient care and professional accountability. Forgetting the neck exercises demonstrated my lack of readiness, which may have resulted from limited practice or insufficient revision of treatment protocols. This incident highlighted the importance of ongoing skills training, clear communication with my supervisor, and utilizing available resources to address uncertainties. I also recognized that inadequate preparation can lead to ethical breaches, organizational inefficiencies, and potential legal implications due to perceived negligence.

**Conclusion:** My insufficient preparation caused the error. I have learned that regular review helps me maintain readiness and confidence. Managing my stress can improve my clinical performance, and engaging in reflective practice helps me build my competency and professional growth.

**Action Plan:** I will review and practice common clinical exercises regularly. I plan to create quick reference notes for common tasks. I will attend workshops or simulations to improve my confidence and will seek feedback proactively to learn from my mistakes.

## PP 113

### Reflecting on Training Deficiencies and the Importance of Correct Patient Transfer Technique

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**Description:** During a placement at a private hospital in Colombo District, a physiotherapy student was asked by the senior physiotherapist to teach a 54-year-old patient with back pain how to get up from the bed. While the student demonstrated the procedure, the physiotherapist intervened, stating the method was incorrect. After the patient left, the student was scolded for the error and instructed to practice the correct technique with peers and redemonstrate it before leaving.

**Feelings:** The student initially felt confident but shifted to feeling upset and frustrated during the critique. Afterward, feelings included Disappointed, Embarrassed (embarrassed), and ultimately Grateful for the feedback.

**Evaluation:** The incident provided a positive opportunity to learn and enhance patient Interaction. Negatively, the visible errors reduced the student's confidence, led to feelings of embarrassment, and momentarily instilled fear.

**Analysis:** The error in the incorrect bed transfer technique was primarily caused by a lack of practical training. Proper bed transfer is vital to minimize spinal strain, accelerate healing, improve safety, and prevent injury, which is critical for patients suffering from back pain. Failure to prioritize patient safety risks harm, legal liability, and severely harms professional competency and credibility.

**Conclusion:** The experience underscored the necessity of continuous education and using appropriate patient management methods. Incorrect handling risks worsening the patient's condition and reducing their confidence in the treatment. The incident highlighted the importance of planning, professionalism, and fulfilling clinical standards.

**Action Plan:** The action plan focuses on improving practical skills and knowledge. Key solutions include engaging in Regular training on safe handling techniques (ranked 1st) and Seeking guidance and mentorship from senior physiotherapists. The student plans to practice frequently and monitor progress.

## PP 114

### Reflecting on Communication and Patient Care during Ultrasound Therapy in Physiotherapy

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**Description:** A 40-year-old female patient with left ankle pain due to a fall attended the physiotherapy unit during my clinical placement at a well-known physiotherapy unit. My senior physiotherapist assessed her and initiated ultrasound therapy, instructing me to continue the procedure gently and smoothly. During the treatment, the patient shouted in pain, and I momentarily paused. I looked at her face, and after assuming she was okay, I resumed the procedure carefully. After the session, the patient left but later complained to the head of the department. The complaint highlighted that I had not greeted her, didn't introduce myself, and didn't carry out the treatment appropriately, complaining that I didn't ask anything when she shouted in pain.

**Feelings:** Before the procedure, I felt excited to apply my skills but also slightly nervous and responsible for the patient's safety. During the procedure, I felt startled, panicked, and guilty when the patient shouted in pain. After the session, I felt disappointed, frustrated, and embarrassed for not greeting the patient, explaining the procedure properly, and addressing her discomfort.

**Evaluation:** The positive outcomes included following the senior physiotherapist's instructions and completing the procedure. I paused the procedure when the patient expressed pain, showing attentiveness to her reaction. I also gained experience in handling ultrasound therapy and reflecting on patient interaction. The negative outcomes included not greeting or introducing myself to the patient, which led to poor rapport. I didn't address the patient's discomfort effectively, which may have caused dissatisfaction, and I missed the chance to communicate the procedure clearly and reassure the patient during the session.

**Analysis:** Effective physician-patient communication is essential, as it promotes better health outcomes, increases patient satisfaction, improves compliance, and reduces the risk of medical errors. Poor communication can lead to decreased adherence to treatment, patient dissatisfaction, and inefficient use of resources. Building strong rapport, showing interest in patients, and being attentive to their concerns during treatment fosters trust, humanizes interactions, and enhances overall satisfaction in physiotherapy care.

**Conclusion:** I learned the importance of effective communication, including greeting and introducing oneself to patients. I recognized the value of explaining procedures clearly to manage patient expectations and realized that building trust and rapport is crucial for improving patient satisfaction and overall care. Feedback from patients and supervisors is valuable for improving practice.

**Action Plan:** I will always greet and introduce myself to patients to build rapport and trust. I will listen actively to patients' feedback and address their concerns, explain procedures clearly beforehand, and seek guidance from seniors on communication skills. I will practice empathy to improve patient care and aim to prevent similar cases in the future.

## PP 115

### Reflecting on Inadequate Preparation and the Impact on Clinical Performance

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**Description:** The reflection is based on a first scheduled placement at a private hospital physiotherapy unit in the Colombo district. The patient was a 21-year-old active badminton player recovering from two consecutive falls. During the session, the physiotherapist assessed the patient's tight hamstring muscles and instructed the student to perform a hamstring release exercise. The student could not respond due to lack of preparation. Following the physiotherapist demonstrating the exercise, the student was scolded for insufficient practice.

**Feelings:** A variety of emotions were experienced, including initial excited, nervous, and eager feelings, which quickly shifted to anxious, confused, self-conscious, embarrassed, and upset during and after the incident. Subsequent reflection led to feelings of being motivated, determined, resolved, and prepared.

**Evaluation:** The incident provided a valuable observation opportunity and led to the positive realization of significant gaps in knowledge. However, the experience was overwhelmingly negative due to a lack of preparation, a communication gap, and a missed opportunity for engagement in patient care.

**Analysis:** The primary issue was the lack of preparation for placement duties. This failure aligns with research indicating that physiotherapy students often struggle with preparation, facing a gap between theoretical knowledge and practical application due to insufficient time to practice techniques. The failure to communicate uncertainty deprived the student of a crucial learning chance, which is critical for student success and patient safety. Recognizing that executing exercises accurately and prioritizing patient safety are foundational aspects of physiotherapy practice, the lack of preparation resulted in the inability to perform prescribed therapeutic exercises and introduced a risk of patient harm or malpractice claims.

**Conclusion:** The experience underscored the necessity of being thoroughly prepared for clinical sessions, particularly regarding common physiotherapy techniques and exercises. It highlighted that effective communication and continuous hands-on practice are essential components of professional competence, impacting patient care, learning outcomes, and potentially compromising patient trust.

**Action Plan:** The highest-ranked action plan is to communicate openly about knowledge gaps and seek guidance when necessary. Other key steps include addressing the lack of preparation, using self-directed learning and simulation practice sessions to improve proficiency, and taking proactive steps to improve skills and avoid hesitation.

## PP 116

### Reflecting on Diagnostic Errors due to Sequence and Imaging Oversight in Clinical Practice

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**Description:** The placement occurred at the physiotherapy unit of a renowned private hospital in Colombo. The patient was a 26-year-old male presenting with a sports-related right knee ligament tear. The student was tasked with performing special tests. After Valgus and Varus tests proved negative, the student performed the Lachman test, which resulted positive, leading to the conclusion of an Anterior Cruciate Ligament injury. Crucially, the student failed to review the MRI scan beforehand. The subsequent diagnosis proved the injury was a Posterior Cruciate Ligament tear. The physiotherapist explained that a PCL tear causes posterior tibial sag, giving a false positive for ACL testing, and PCL injuries must be excluded first.

**Feelings:** A range of feelings was experienced, moving from initial Nervous anticipation and Confident performance to later feelings of Doubtful, Ashamed, Embarrassed, and Regretful following the misdiagnosis.

**Evaluation:** Positively, the student gained valuable hands-on experience and learned the importance of integrating clinical tests with imaging studies for accurate diagnosis. Negatively, the incident revealed a significant gap in knowledge regarding the correct test sequence and resulted in an incorrect diagnosis.

**Analysis:** The error stemmed from a lack of knowledge on the proper examination sequence and an overreliance on a false positive test result. A PCL tear can result in a "false" Lachman test interpretation because the tibia is translated from a posteriorly subluxated position. While the Lachman test is highly effective for ACL tears (95% sensitivity), the posterior drawer test is most accurate for ruling out a PCL injury. Failing to integrate imaging results breached diagnosis standards and increased the risk of incorrect diagnosis.

**Conclusion:** The experience underscored the vital roles of clinical reasoning and mastering procedural knowledge to ensure the correct test sequence is followed. Understanding biomechanics aids accurate interpretation and prevents false positives. Professional preparation, integrating tests and imaging, is necessary for accurate diagnosis, building patient trust, and maintaining competence.

**Action Plan:** The highest-ranked solution is to review the patient's history and diagnosis tests beforehand. Key actions include enhancing knowledge of diagnostic test sequences, specifically prioritizing PCL exclusion before ACL testing, studying knee biomechanics, and collaborating with supervisors to integrate physical exam results with imaging.

## PP 117

### Reflection on Providing Effective Physiotherapy Care for an Older Adult with Frozen Shoulder

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**Description:** I was at the physiotherapy unit of a leading private hospital in Colombo. A 60-year-old female patient with left-sided adhesive capsulitis attended her first session. The senior physiotherapist assessed her and asked me to perform active-assisted exercises. Following their instructions, I taught and assisted the patient with exercises, provided home advice, and wrote down the exercises with sets and repetitions. I concluded the session by walking the patient out and later received compliments from the senior physiotherapist for my approach and age-appropriate exercise plan.

**Feelings:** Before the session, I felt scared and uncertain about managing the patient independently, but during the session, I became confident, comfortable, and certain as I applied my knowledge and assisted the patient with her exercises. After completing the session successfully, I felt happy, relieved, and content, especially after receiving positive feedback from the senior physiotherapist.

**Evaluation:** This experience helped me understand the importance of effective communication with the patient, build confidence in providing independent care, and gain practical experience in a real-life clinical scenario. While I successfully provided age-appropriate exercises tailored to the patient's needs, I recognized areas for improvement, including explaining exercises more thoroughly to ensure the patient's understanding and researching more about age-specific interventions to optimize outcomes for elderly patients.

**Analysis:** Frozen shoulder, also known as adhesive capsulitis, is a painful, stiff, and disabling condition characterized by partial to complete loss of shoulder joint movement, often developing gradually without a cause. Effective communication is crucial in patient-centered care, improving treatment adherence, building trust, lowering anxiety, and promoting optimal health. It is not just a diagnostic tool but also a vital component of the healing process. Age-centered treatment is a method that tailors care to the unique needs and challenges of older patients, addressing physiological changes and enhancing effectiveness, aligning exercises and rehabilitation goals with a patient's limitations and recovery potential, and reducing injury risk.

**Conclusion:** Through this experience, I learned that age-centered care and clear communication between the patient and the physiotherapist are important. The senior physiotherapist's guidance and compliments highlighted the importance of effective communication, patient approach, and age-specific treatments, encouraging future improvement.

**Action Plan:** I plan to improve my skills to enhance the quality of patient care in the future. This includes conducting comprehensive initial assessments, actively engaging patients in decision-making processes, encouraging and recognizing patient progress, and writing clearer and more precise home exercise plans.

## PP 118

### Reflecting on Knowledge Gaps and Preparation for Lower Back Pain Treatment

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**Description:** During a clinical placement at a leading hospital in Colombo, I was assigned with a colleague to develop and implement a lower back pain treatment plan. While asked to perform the demonstration for a senior physiotherapist, we experienced a failure to remember the required exercises and back muscles.

**Feelings:** Initial feelings of Excited, Nervousness, and Motivated transitioned to Anxiety, Guilt, Disappointment, Helpless, and Embarrassed during the demonstration. Ultimately, a sense of relief was felt.

**Evaluation:** Positively, we worked collaboratively and successfully conducted a basic assessment. We were also able to develop a basic treatment plan. Negatively, the inability to recall exercises may have delayed effective treatment, reduced confidence, and heightened overall stress levels.

**Analysis:** The core issue was the failure to remember exercises and back muscles, rooted in inadequate preparation before the task and insufficient understanding of evidence-based protocol. This lack of preparation led to anxiety about delivering substandard treatment and reduced confidence in clinical abilities. The experience underscored the crucial importance of meticulous planning and thorough research in clinical practice.

**Conclusion:** This experience highlighted the need for meticulous planning, thorough research, and effective time management. Identifying specific areas for improvement, such as what exercises to administer, was crucial. This realization has motivated me to become a diligent and knowledgeable healthcare professional.

**Action Plan:** The top action items are to conduct thorough preparation (reviewing exercises and anatomy) and seek feedback and guidance from supervisors. I will dedicate more time to studying relevant literature, collaborating with peers, and practicing developing treatment plans under simulated conditions to improve overall competence.

## PP 119

### Reflection on Performing Suctioning in Neuro ICU

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**Description:** I was in the Neuro ICU for my scheduled placement, and the senior physiotherapist accompanied me to a patient who required suctioning. After collecting the necessary equipment under her guidance, I began the procedure, but the patient became uncomfortable and started coughing. Despite my inexperience, I continued while following her instructions. She guided me through each step, and although I cleared some secretions, I could not complete the procedure independently. My supervisor then finished the task, commended my efforts, and provided constructive feedback on areas for improvement.

**Feelings:** Before the procedure, I felt nervous and worried about performing suctioning independently. During the procedure, I experienced anxiety and felt overwhelmed as the patient became uncomfortable. After the procedure, I felt relieved that the patient was stable, but I was disappointed in my inability to complete the suctioning on my own. These emotions reflected my lack of confidence and inexperience in performing high-risk clinical procedures.

**Evaluation:** I attempted a challenging procedure despite feeling anxious, which allowed me to gain valuable hands-on experience. Receiving supportive guidance from the senior physiotherapist created a safe learning space where I could practice under supervision. I gained insight into the importance of suctioning for patient outcomes. However, my lack of clinical exposure and confidence affected my technique, and my inadequate preparation limited my effectiveness. This highlighted areas where I need to focus on improving my skills and building confidence.

**Analysis:** Clinical simulation ensures healthcare students feel confident and competent to conduct high-risk procedures. Repeated simulations can reduce anxiety while improving clinical performance, which explains my hesitation due to inexperience. The ICU environment, with its urgency for care, added to my tension. High levels of stress can impair performance, which was evident in my nervousness during suctioning. Effective communication with senior physiotherapists requires respect, clarity, and structured methods to ensure concise and focused discussions. This approach improves collaboration and reduces errors in patient care.

**Conclusion:** This incident taught me a lot about preparation, confidence, and the role of practice in mastering clinical skills. I also realized that clear communication and a supervisor's guidance may make a big difference even in the tensest moments. I could only partially perform the suctioning, but this experience underlined the continuous need to develop and reflect on my skills.

**Action Plan:** I plan to request simulation sessions with mannequins for suctioning. I will conduct supervised practice weekly over two months to build proficiency. I will review airway management protocols, reflect on ICU experiences after every shift, and seek regular feedback from supervisors to refine my skills.



## PP 120

### Reflecting on Managing Patient Hostility and Communication Breakdown in Clinical Practice

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**Description:** During scheduled ward rounds at a Colombo hospital, the student was administering percussion therapy (chest physiotherapy) to a 72-year-old female patient recovering from craniotomy surgery. As the student began explaining the procedure, the patient interrupted with aggressive verbal outbursts, demanding the student leave. Despite the outburst, the senior physiotherapist encouraged the student to maintain professionalism and proceed. The student completed the session successfully under supervision, resulting in improved respiratory function.

**Feelings:** Initially feeling confident and certain, the student quickly shifted to feeling embarrassed, confused, uneasy, and unprepared during the patient's aggressive outburst. The senior physiotherapist's guidance provided support and reassurance. After treatment completion, the student felt disheartened by the patient's frustration but was relieved and praised by the patient guardian.

**Evaluation:** The positive outcome was the student's ability to adjust and assure the patient's medical needs professionally with the senior physiotherapist's guidance. Negatively, the initial reaction revealed a lack of confidence and unpreparedness for patient hostility, resulting in a breakdown in communication and limited skills in managing distress.

**Analysis:** The patient, recovering from a craniotomy (a surgical procedure often followed by chest physiotherapy to prevent complications), likely exhibited agitation due to post-operative distress. Managing these behavioral challenges requires clear, compassionate communication and validation of emotions. The primary deficiency identified was a lack of preparedness for such emotional challenges, leading to an initial inability to handle the patient's distress.

**Conclusion:** This experience critically highlighted the importance of effective, empathetic communication and resilience for navigating emotionally charged clinical scenarios. It underscored the need to balance technical proficiency with strong interpersonal skills. Maintaining composure under pressure is essential for ensuring safe and effective care.

**Action Plan:** The action plan focuses on improving confidence through simulated patient interactions and seeking mentorship. Key steps include attending workshops on communication and de-escalation techniques, developing clear and empathetic conversations beforehand to reduce anxiety, and maintaining weekly reflection logs.

## PP 121

### Reflection on the Administration of an Intramuscular Injection in a Clinical Setting

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**Description:** During my clinical placement in the vaccine room, I was instructed to administer a Vitamin B12 intramuscular injection to a 43-year-old female patient under the supervision of a senior nurse. I followed all aseptic techniques and safety protocols, obtained verbal consent, and selected the deltoid muscle for injection. The procedure was completed smoothly, and the patient reported minimal discomfort. The senior nurse commended my technique and encouraged me to stay confident in future procedures.

**Feelings:** At first, I felt nervous and slightly fearful since it was my first real-patient IM injection. However, I was also excited to apply my training practically. During the procedure, my anxiety reduced as I concentrated on the steps and received reassurance from my supervisor. After completing the injection, I felt happy, proud, and motivated to keep improving my clinical competence.

**Evaluation:** This experience provided valuable insight into the application of theory to practice. I was able to administer the injection safely and effectively, demonstrating appropriate technique and patient communication. The support of the supervising nurse was crucial in helping me stay calm and focused. My initial nervousness revealed a lack of hands-on experience, emphasizing the need for more clinical exposure to build confidence.

**Analysis:** The procedure followed a structured process involving verification, consent, and safe medication administration. Accurate technique and site selection were essential to prevent complications such as nerve or tissue injury. According to Brammer (2006), supportive supervision plays a vital role in student learning, especially during first practical experiences. This reflection demonstrated the significance of patient-centered communication, adherence to safety protocols, and maintaining composure under pressure.

**Conclusion:** Through this experience, I developed a clearer understanding of the balance between theoretical knowledge and clinical application. It helped me recognize that self-confidence, calmness, and technical accuracy are essential for safe and effective patient care. I identified the importance of continued learning and regular practice to overcome nervousness and enhance performance in clinical situations.

**Action Plan:** To strengthen my skills, I plan to engage in more hands-on practice during clinical placements and seek constructive feedback from mentors. I will observe senior nurses closely to refine my techniques and focus on maintaining calmness under pressure. By consistently applying safety protocols and reflecting on each experience, I aim to build greater confidence, accuracy, and professionalism in future nursing practices.

## PP 122

### Reflecting on Documentation Challenges and Knowledge Gaps in Spirometry Treatment

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**Description:** During a scheduled placement at a reputable private hospital in the Colombo district, the student treated a 52-year-old male patient with a tibial head fracture. The physiotherapist instructed the student to perform breathing exercises and spirometry. After treatment, the student was asked to record the treatments on the Bed Head Ticket (BHT). The physiotherapist then requested the spirometry value, but the student informed him of a lack of knowledge in this area. The physiotherapist then suggested research and subsequently taught the student the calculation.

**Feelings:** Initially, the student felt excited, confident, and motivated (seeing the task as challenging). However, the initial experience of writing a BHT made the student nervous, and admitting the lack of knowledge caused confidence to drop. Immediately afterward, the student felt upset and regretful but later felt happy and grateful for the instruction received.

**Evaluation:** Positively, the student overcame the fear of handling the patient alone and upheld professionalism. Quick communication with the physiotherapist helped to bridge the knowledge gap about the spirometry value and BHT filling. Negatively, the lack of prior knowledge about BHT documentation and calculation could have created a negative impression, slowed workflow, and risked wrong clinical decisions.

**Analysis:** The core issue was inadequate preparation, resulting in the failure to know how to calculate the spirometry value and correctly fill the BHT. This lack of knowledge reduced confidence and posed a potential risk of obtaining wrong clinical decisions. The situation highlighted the necessity of meticulous planning and thorough research in clinical practice.

**Conclusion:** The experience emphasized the need for continuous learning and meticulous planning. Identifying the specific knowledge gap (spirometry value calculation) was crucial, and the successful resolution enhanced the student's overall knowledge and built confidence to deal with similar issues in the future.

**Action Plan:** The plan should focus on thorough preparation (reviewing BHT documentation and spirometry calculation methods) and seeking feedback and guidance from supervisors. The student must ensure continuous research and practice documentation to improve competence.

## PP 123

### Reflection on the Importance of Communication and Teamwork in Multidisciplinary Healthcare Practice

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**Description:** During my clinical placement in a physiotherapy unit at a private physiotherapy clinic, I was treating a 45-year-old male patient with chronic lower back pain. My supervisor instructed me to apply Interferential Therapy (IFT) to help alleviate his pain. However, I forgot the specific program settings for the IFT machine. I initially felt confident in treating the patient, as I had observed IFT being used before. When I approached the IFT machine, I realized I couldn't recall the correct program settings, such as frequency, intensity, and duration. I hesitated and had to ask my supervisor for assistance, which delayed the treatment and caused some embarrassment.

**Feelings:** At the beginning, I felt confident in my ability to assist the patient. When I realized I couldn't remember the IFT program, I felt embarrassed and unprepared. I was also frustrated with myself for not recalling the settings, especially since I had seen the procedure before. Afterward, I was grateful for my supervisor's patience and guidance in helping me set up the machine correctly.

**Evaluation:** The positive aspect was that I was able to admit my mistake and seek help, which ensured the patient received the correct treatment. The patient's pain was alleviated after the IFT session, and he expressed satisfaction with the treatment. The negative aspect was that my lack of preparation and recall of the IFT program delayed the treatment process. I felt I had let the patient and my supervisor down by not being fully prepared.

**Analysis:** During a clinical placement, an incident occurred while administering Interferential Therapy (IFT) to a patient with Parkinson's disease due to my reliance on observation rather than hands-on practice and insufficient preparation of the IFT program settings. This lack of prior practical experience and detailed knowledge of the machine led to hesitation and forgetfulness during treatment. The situation highlighted that thorough preparation, familiarization with equipment, and proactive practice are essential to ensure safe and effective patient care in physiotherapy.

**Conclusion:** Patient safety and continuous support are paramount during physiotherapy, particularly for patients with complex conditions such as Parkinson's disease. The senior physiotherapist's guidance reinforced the value of supervision and direct assistance.

**Action Plan:** To enhance practice and professional development, strategies include regular practice with physiotherapy equipment, detailed documentation of treatment protocols, simulation of treatment scenarios, and participation in workshops on electrotherapy. Reflective practice will be used to learn from experiences and improve future performance.

## PP 124

### Reflecting on Professionalism and Patient Care Prioritization in an Elderly Care Setting

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**Description:** During my clinical placement at a well-known elder's home, my colleagues and I were assigned to provide physiotherapy treatment for four scheduled patients. After treating two patients, we moved to the sitting area and started conversing among ourselves while the remaining two patients were still waiting. After some time, the head of the elder's home approached us and reminded us that our role was to provide treatment, warning that he would report us to our coordinator if it happened again. Following this, my colleagues and I immediately resumed our duties and completed the treatment for the remaining patients. The head of the elder's home left after addressing us, and all scheduled physiotherapy sessions were successfully completed.

**Feelings:** Before the session, I felt focused and responsible, wanting to provide proper care. During the session, I became relaxed and distracted by conversation, losing full attention on the waiting patients. After the reminder, I felt embarrassed, guilty, and frustrated for not prioritizing patient care. Later, I reflected, became more aware of my responsibilities, and was determined to improve my focus and professionalism.

**Evaluation:** Positive outcomes included successfully treating two of the four scheduled patients, effective teamwork during the initial treatment sessions, and ensuring that patients initially received the care they needed. Negative outcomes involved distraction from duties due to casual conversation, poor time management, lack of prioritization, and a breakdown in professional focus during the session.

**Analysis:** Prioritizing patient care and managing time effectively are essential in physiotherapy. Students may unconsciously prioritize easier cases, such as postoperative patients, over older adults or those with cognitive impairments, which can affect patient outcomes. Using structured routines, allocating time for unexpected delays, and educating patients about their care can improve efficiency, maintain professionalism, and ensure fair and timely treatment for all patients.

**Conclusion:** I learned the importance of professionalism, focus, and time management in a clinical setting. Responsibilities must be prioritized, and breaks should not interfere with patient care. Moving forward, I will stay mindful of my duties and manage time effectively.

**Action Plan:** Maintain a professional attitude and stay focused on patient care. Work effectively as a team. Apply better time management skills to avoid similar situations. Ensure clear communication with colleagues to complete tasks on time. Follow a structured approach to responsibilities to maintain professionalism.

## PP 125

### Reflection on Enhancing Clinical Decision-Making and Professional Skills in Neuro-ICU Physiotherapy

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**Description:** During my placement at a leading private hospital in Colombo, I accompanied a senior physiotherapist to the Neuro ICU for morning ward rounds. After assisting with the first patient, I was assigned to treat the second patient independently, using the bed head ticket and communicating with the patient. The patient had undergone a right-sided craniectomy. I reviewed the bed head ticket, gently called the patient by name, and carried out the treatment I deemed appropriate. Afterward, I reported back to the senior physiotherapist, explaining my interventions. The physiotherapist commended my professional handling, appropriate treatment choices, and understanding of their relevance.

**Feelings:** Before the session, I felt uncertain and nervous because I would be responsible for treating a critically ill patient independently. During the session, I felt confident and assured as I applied my knowledge, followed the bed head ticket, and communicated effectively with the patient. After the session, I felt a sense of accomplishment and relief, having completed the intervention correctly and received positive feedback.

**Evaluation:** Positive experiences included developing independent clinical decision-making skills, interpreting the bed head ticket accurately, implementing appropriate interventions, and gaining experience in a high-dependency unit. Negative experiences included the need to strengthen patient interaction with less responsive patients, incorporate structured documentation, and seek more direct feedback from senior clinicians.

**Analysis:** A craniectomy removes part of the skull to reduce intracranial pressure, allowing the brain to expand and improving blood flow. Potential complications include infections, reduced muscle tone, DVT, and decreased range of motion. Neurorehabilitation involves passive or assisted movements for less responsive patients, preventing complications and stimulating neural pathways. The bed head ticket provides essential medical information, aiding in tailored rehabilitation, preventing complications, and optimizing patient recovery.

**Conclusion:** Managing a Neuro ICU patient enhanced clinical and professional skills, boosted confidence, and highlighted the importance of thorough evaluation. Positive feedback validated interventions and motivated future improvement.

**Action Plan:** Future interventions will include pre-therapy assessments, effective communication with the nursing team, supervision from senior physiotherapists, collaboration with nursing assistants, close patient monitoring, full documentation of techniques and responses, and approvals from the medical team for treatment adjustments.

## PP 126

### Reflection on the Importance of Patient Assessment and Exercise Progression in Rotator Cuff Rehabilitation

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**Description:** During my clinical placement in a private hospital, I assisted in the rehabilitation of a 50-year-old male recovering from a rotator cuff injury. While guiding wand-assisted shoulder exercises, the patient experienced pain after I encouraged increased elevation beyond his tolerance. I immediately sought supervision, and the physiotherapist confirmed there was no further injury and that the pain resolved with rest. This incident highlighted the importance of adhering to planned treatment progression and maintaining patient comfort throughout rehabilitation.

**Feelings:** Before the incident, I felt confident and satisfied with my performance, as the patient appeared to be improving. However, the moment he expressed pain, I felt anxious, guilty, and uncertain about my actions. After the supervisor reassured me that the patient was fine, I felt relieved but also disappointed and embarrassed about my mistake. This experience taught me humility and made me realize the importance of clinical caution and patient-centered care.

**Evaluation:** The positive aspect of this incident was the learning opportunity it provided. I learned that even small decisions—such as asking a patient to increase movement—should be based on proper assessment, clinical reasoning, and patient feedback. I appreciated how promptly the supervisor intervened, preventing further harm and turning the situation into a valuable teaching moment. The negative aspect was my failure to recognize subtle signs of discomfort and my overconfidence, which momentarily compromised patient safety.

**Analysis:** Rotator cuff injuries are common in adults and require a gradual, structured rehabilitation program that progresses from gentle mobility exercises to strengthening and functional training. This experience highlighted how deviating from the planned progression can cause pain and hinder recovery. It reinforced the importance of assessing patient readiness, monitoring pain tolerance, and maintaining clear communication throughout treatment. Close supervision and collaboration are essential to ensure safe, effective rehabilitation and positive patient outcomes.

**Conclusion:** This incident reinforced the significance of patient assessment, gradual progression, and adherence to evidence-based rehabilitation protocols. I learned that confidence in clinical practice should always be balanced with caution and continuous observation. The experience taught me that patient safety and comfort must remain the top priority at every stage of treatment. By reflecting on this event, I recognized the need to continually improve my clinical judgment, communication, and decision-making skills.

**Action Plan:** In future practice, I will ensure exercise progression only after thorough patient assessment and consistent use of the SOAP framework. I aim to strengthen my clinical decision-making through evidence-based learning and professional development. Clear communication, close monitoring of patient responses, and timely guidance from supervisors will guide my treatment adjustments. Ongoing self-reflection will support my growth as a safe, ethical, and competent practitioner.

## PP 127

### Reflection on Managing an Uncooperative Post-Stroke Patient during Clinical Placement

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**Description:** During my clinical placement at a physiotherapy unit in Colombo, I will accompany my senior physiotherapist to assess a middle-aged female patient diagnosed with right-side hemiplegia following a stroke. I will be instructed to perform passive movements on the affected side while the senior attends to another patient. However, when I wake the patient, she will become agitated due to her post-stroke mental state and medication effects. Despite consulting her guardian and obtaining permission, she will remain uncooperative, making it difficult to complete the session. The incident will emphasize the importance of communication, empathy, and patient-centered care when dealing with cognitively or emotionally unstable patients.

**Feelings:** Initially, I will feel confident and eager to demonstrate my practical skills. When the patient becomes agitated, I will feel embarrassed and uncertain about how to proceed. The situation will generate self-doubt, yet gratitude toward my senior's guidance will restore confidence and highlight the value of supportive supervision.

**Evaluation:** The event will serve as a meaningful learning opportunity, illustrating how effective communication and patience contribute to successful rehabilitation. Although I will struggle to manage the uncooperative behavior, the experience will underscore the necessity of adapting treatment approaches to individual patient needs.

**Analysis:** The reflection will reveal that agitation in stroke patients may stem from neurological and pharmacological factors, requiring therapists to adopt calm, clear, and reassuring communication strategies. It will also emphasize that professional preparedness and emotional control are vital for patient engagement and safety.

**Conclusion:** This experience will enhance my understanding of stroke rehabilitation and strengthen my ability to respond empathetically and effectively to challenging clinical situations.

**Action Plan:** In future practice, I will enhance my knowledge of neuro-behavioral complications, develop alternative therapeutic strategies, and improve communication through workshops, simulation training, and mentorship. These actions will help me deliver safer and more patient-centered physiotherapy interventions.



## PP 128

### Reflection on the Application of Proprioceptive Neuromuscular Facilitation Techniques in a Neurosurgical ICU Patient

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**Description:** During my clinical placement in the neurosurgical intensive care unit at a private hospital, I was given the opportunity to treat a 46-year-old male patient diagnosed with subarachnoid hemorrhage (SAH) and intracranial hemorrhage (ICH), presenting with left upper limb weakness and a synergy pattern. Under the guidance of my senior physiotherapist, I was instructed to perform Proprioceptive Neuromuscular Facilitation (PNF) D1 and D2 flexion-extension exercises to improve motor control and limb coordination. Although I had theoretical knowledge of these procedures, it was my first time applying them independently in a clinical setting. After performing the techniques, my senior physiotherapist evaluated my work and provided constructive feedback, commending my effort while advising me to continue practicing to further refine my handling and confidence.

**Feelings:** Initially, I felt anxious and self-conscious due to the high-pressure ICU environment and my limited practical experience. I was particularly worried about performing incorrectly or causing discomfort to the patient. However, as the session progressed, I began to focus more on the proper technique and patient comfort, which helped reduce my nervousness. When my senior physiotherapist observed my performance and offered positive feedback, I felt relieved, proud, and motivated. The experience also gave me confidence in my ability to translate theoretical learning into safe and effective patient care.

**Evaluation:** The experience was valuable as it allowed me to bridge the gap between theory and clinical practice. I learned how essential confidence, concentration, and effective patient communication are during treatment. Working in an ICU setting taught me to remain calm and methodical even under pressure. However, my nervousness initially affected my ability to interact with the patient, highlighting an area for improvement in multitasking between technique and communication. The event reinforced the importance of constructive feedback, teamwork, and self-reflection in professional growth.

**Analysis:** This incident emphasized that performing techniques such as PNF requires both technical precision and emotional control. The experience supported research findings that PNF techniques enhance neuromuscular coordination and motor recovery in neurological patients. Moreover, it revealed how clinical confidence and experience play a vital role in improving therapeutic effectiveness. The root cause of my anxiety was limited hands-on exposure, which can be overcome through continuous practice, supervision, and patient interaction. It also demonstrated the significance of evidence-based practice combined with effective communication to deliver optimal patient care.

**Conclusion:** This experience highlighted the importance of practice, feedback, and reflection in building clinical skills. Applying PNF improved my understanding of neurorehabilitation, while reinforcing that confidence, observation, and communication are vital for effective physiotherapy and ongoing professional growth.

**Action Plan:** I plan to enhance my confidence and clinical skills through continuous practice and active participation. I will seek regular feedback from supervisors, improve my patient interaction, and strengthen my knowledge of PNF and neurorehabilitation techniques. Additionally, I will work on staying calm and delivering safe, patient-centered care in clinical settings.

## PP 129

### Reflection on the Development and Implementation of a Treatment Plan for a Patient with Lower Back Pain during Clinical Placement

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**Description:** During my clinical placement at a leading hospital in Colombo, I will be assigned, along with a colleague, to develop and implement a treatment plan for a patient presenting with lower back pain. The process will involve conducting a detailed assessment, formulating an evidence-based plan, and performing the treatment under the supervision of a senior physiotherapist. Despite our preparation, we may overlook key treatment elements, prompting us to reflect on our performance and learning. This experience will highlight the necessity of thorough planning and professional guidance during clinical decision-making.

**Feelings:** At the beginning, I will feel enthusiastic to apply theoretical knowledge in a real clinical setting. However, as challenges arise, I may experience anxiety and self-doubt about missing crucial components in the plan. Eventually, constructive feedback from the supervisor will bring relief and a sense of accomplishment, reinforcing my confidence and motivation to learn from the experience.

**Evaluation:** The placement will demonstrate the value of teamwork and communication in patient management. Although time constraints and limited experience might hinder the comprehensiveness of the plan, the situation will emphasize how collaborative effort and feedback contribute to clinical growth.

**Analysis:** The reflection will underline the importance of careful assessment, adequate preparation, and effective communication in physiotherapy practice. It will also emphasize how continuous learning, sterile techniques, and adherence to clinical protocols enhance patient recovery and prevent treatment errors.

**Conclusion:** Through this experience, I will recognize the significance of planning, time management, and continuous professional development in ensuring optimal patient outcomes.

**Action Plan:** In the future, I will focus on improving my clinical reasoning, time management, and communication skills. I will participate in workshops, engage in peer discussions, and consistently review current literature to strengthen my competence and confidence as a physiotherapist.

## PP 130

### Reflection on the Importance of Adhering to Hand Hygiene Protocols in the ICU

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**Description:** During my clinical placement in the Neuro ICU of a reputed hospital in the Colombo district, I was performing limb passive range of motion exercises on an unconscious but stable patient under the supervision of a senior physiotherapist. After completing the treatment, I reached for the patient's bedhead ticket without removing my gloves or performing hand hygiene. The in-charge nurse immediately noticed this and reminded me that it was against ICU infection control policy. I promptly acknowledged the mistake, apologized, removed my gloves, and washed my hands. Although no harm occurred, the incident served as a valuable reminder of the importance of maintaining hygiene in high-risk environments.

**Feelings:** Initially, I felt nervous and embarrassed when corrected in front of others. I was disappointed in myself for not adhering to basic hygiene procedures. However, I also felt relieved and grateful for the nurse's timely intervention and the opportunity to correct my mistake. The experience motivated me to strengthen my awareness and professionalism.

**Evaluation:** The positive aspect was my immediate response and professional attitude in acknowledging the error. However, my failure to perform proper hand hygiene reflected a lack of mindfulness during routine procedures. The event emphasized that even small oversights can compromise patient safety in critical care units.

**Analysis:** Hand hygiene is essential in preventing hospital-acquired infections (HAIs) and maintaining patient safety. ICU environments demand strict adherence to infection control policies. Research highlights that poor hygiene leads to increased infection rates, patient morbidity, and reduced trust in healthcare services. This experience reinforced the importance of vigilance, teamwork, and adherence to evidence-based practices.

**Conclusion:** The incident reminded me that patient safety begins with personal accountability. Even minor lapses can lead to serious consequences. It also demonstrated the value of constructive feedback and teamwork in maintaining safe clinical practices.

**Action Plan:** I will consistently follow WHO's "Five Moments for Hand Hygiene," remove gloves immediately after patient contact, and wash my hands before touching surroundings. I plan to attend infection control workshops and consciously practice mindfulness during multitasking to ensure adherence to all hygiene protocols.

## PP 131

### Reflection on Safe Practice and Patient Communication during Neuromuscular Electrical Stimulation

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**Description:** During my clinical placement at a reputed hospital in the Colombo district, I treated a patient diagnosed with facial palsy under the supervision of a senior physiotherapist. After assessing the patient, I decided to apply Neuromuscular Electrical Stimulation (NMES) to facilitate facial muscle re-education and symmetry. While transferring the pen electrode from the forehead to the cheek, I failed to reduce the current intensity to zero before repositioning. This caused a sudden electrical surge, resulting in patient discomfort. I immediately lowered the intensity, apologized, and the supervising physiotherapist reassured the patient and guided me in proper technique.

**Feelings:** Initially, I felt confident and eager to demonstrate my skills. However, when the patient expressed pain, I felt anxious, embarrassed, and disappointed in myself. I feared losing the trust of both the patient and my supervisor. Despite these emotions, the calm and professional response of my senior helped me feel supported. I later felt relieved and grateful for the constructive feedback that turned the situation into a valuable learning experience.

**Evaluation:** Positively, I correctly identified the motor points and responded promptly to the patient's discomfort. I maintained professionalism through immediate apology and reassurance. However, failing to follow the safety step of zeroing the intensity revealed a lapse in attention and procedural discipline. The incident emphasized that even minor oversights can lead to patient discomfort and ethical implications.

**Analysis:** This incident highlighted the importance of concentration, emotional regulation, and procedural adherence during NMES. Literature suggests that student anxiety during clinical practice can impair memory and technical accuracy. Schön's reflection-in-action theory explains that professional growth arises from evaluating actions during and after practice. My experience reinforced that patient safety must always precede technical execution.

**Conclusion:** I learned that technical skill without mindfulness can compromise patient trust. Maintaining composure and effective communication are essential to uphold professionalism and patient-centered care.

**Action Plan:** I will consistently follow a pre-treatment safety checklist, confirm zero intensity before electrode contact, and attend workshops on infection control and patient communication. Continued supervised practice will help strengthen confidence, focus, and procedural safety in future clinical practice.

## Reflection on a Patient Safety Incident during Infrared Therapy

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**Description:** During my clinical placement in the physiotherapy unit of a leading hospital in the Colombo district, I was responsible for treating a 65-year-old female patient with right-sided lower back pain. She was referred for Infrared (IR) and TENS therapy. After correctly setting up the IR lamp with the appropriate temperature and timing, I left the patient unattended to complete an assessment for another patient and collect her file. In my haste, I failed to provide her with a call bell. Upon my return, I noticed mild redness on her lower back. The patient, who had sensitive skin, reported feeling discomfort but had no means to alert me. I immediately apologized, applied a cold pack with her consent, and informed my senior physiotherapist. After ensuring the patient was comfortable and with her consent, I proceeded with TENS therapy, carefully placing the electrodes away from the irritated area.

**Feelings:** Initially, I felt focused and committed to managing my tasks efficiently. When I discovered the redness, my emotions shifted to alarm, anxiety, and deep concern for the patient's well-being. I felt profoundly guilty and embarrassed for my oversight, as I was solely responsible for the lapse in her care. After managing the situation, I felt relieved that the injury was minor and resolved quickly, and I was grateful for the patient's understanding. Ultimately, this incident left me feeling reflective and strongly motivated to improve my practice, reinforcing that patient safety must never be compromised by multitasking.

**Evaluation:** The positive aspects of this experience included my correct initial setup of the IR equipment, my prompt recognition of the problem upon return, and my immediate, empathetic response, which involved apologizing, applying a cold pack, and reporting the incident transparently to my senior. However, the negative outcomes were significant. My failure to provide a call bell and leaving a patient unattended during a thermal modality directly compromised patient safety. This highlighted a critical failure in pre-therapy assessment, as I had not checked for skin sensitivity, and a lapse in judgment by attempting to manage multiple tasks without seeking support in a busy environment.

**Analysis:** The core of this incident was a deviation from fundamental safety protocols. Thermal modalities like IR therapy carry inherent risks, such as burns, and the standard precaution of providing a call bell is non-negotiable to allow patients to communicate discomfort. My action contravened this basic principle. Furthermore, attempting to juggle multiple patients without delegating or seeking help meant I worked beyond the effective limits of my attention, a direct contrast to the HCPC's guidance to "work within the limits of your knowledge and skills" and ask for help when necessary. While no serious harm occurred, the potential consequences of a severe burn, patient distress, and a breach of professional trust were significant. This event was not just an error but a lapse in clinical judgment, where task completion was mistakenly prioritized over comprehensive patient safety.

**Conclusion:** This incident was a pivotal lesson in the absolute primacy of patient safety. It underscored that strict adherence to safety protocols, such as pre-treatment skin assessments and ensuring that communication tools are in place, is the bedrock of ethical and effective care. I recognized that my skills in task prioritization and my willingness to seek support in a busy clinical environment required immediate improvement. I learned that true professionalism involves acknowledging one's limits and that reflective practice is essential for translating clinical experiences into improved competence.

**Action Plan:** I will ensure patient safety by always providing a call bell and never leaving patients unattended during heat therapy. I will check skin sensitivity beforehand and seek support from senior staff when needed. I also plan to improve my time management and continue reflecting with supervisors to strengthen my practice and become a safer, more competent healthcare professional.

## PP 133

### Reflection on an Incident of Incorrect Therapeutic Posture

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**Description:** I am a physiotherapy student who was attending a placement at a private hospital in the Colombo District. A right-sided hemiplegic stroke patient came to the unit, and the senior physiotherapist instructed me to perform passive movements to the affected side. While I was conducting the treatment, the physiotherapist entered the cabin and observed my technique. He then asked, "Are you maintaining the correct physiotherapist posture?" referring to the walking stance posture. Once he pointed it out, I corrected my mistake and continued the treatment. After the patient left, he scolded me in front of my friends, saying, "Don't you know the correct posture and why it is important?"

**Feelings:** Initially, I felt embarrassed and anxious when my mistake was pointed out publicly. The scolding reduced my confidence and made it difficult to maintain focus during the remainder of the session. However, upon reflection, I recognized this as an important learning opportunity. The experience of working with a stroke patient was valuable, and despite the initial discomfort, the feedback ultimately helped me understand the critical importance of proper technique in clinical practice.

**Evaluation:** The positive aspects of this experience included the opportunity to practice on a stroke patient, receive direct supervision, and learn about correct posture implementation. However, the negative aspects were significant. My failure to maintain proper walking posture compromised both my safety and treatment quality. The public nature of the feedback, while uncomfortable, highlighted the importance of professional standards in clinical settings.

**Analysis:** The walking stance posture is a foundational ergonomic position in physiotherapy that ensures both therapist stability and patient safety during manual techniques. Proper posture reduces the risk of musculoskeletal injuries among healthcare professionals and allows for better force control during treatment. My failure to maintain this posture occurred due to inexperience and nervousness, despite theoretical knowledge of its importance. This gap between knowledge and practice represents a significant learning need in my professional development. The potential consequences included risk of injury to me, reduced treatment effectiveness, and compromised patient safety.

**Conclusion:** This experience taught me the critical importance of integrating theoretical knowledge with practical execution. Although I knew the correct posture theoretically, I failed to apply it in practice due to nervousness and inexperience. The feedback, while uncomfortable, provided valuable insight into areas needing improvement. I learned that true professionalism includes maintaining proper body mechanics during all patient interactions, and that attention to these details is essential for both therapist safety and treatment quality.

**Action Plan:** To ensure this does not recur, I will actively seek guidance from senior physiotherapists to learn and demonstrate correct handling techniques and will attend additional training sessions on ergonomics and safe body mechanics. I will practice these techniques regularly in simulated settings to build muscle memory and monitor my progress through self-reflection and supervisor feedback. This reflective process has been crucial in transforming a challenging experience into a valuable opportunity for professional growth and development as a physiotherapist.

## PP 134

### Reflection on an Incident during Cupping Therapy Application

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<sup>1</sup>*School of Physiotherapy, International Institute of Health Sciences, Welisara, Sri Lanka*

**Description:** During my clinical placement at a reputed private clinic in the Colombo District, I was treating a 56-year-old female patient presenting with dull lower back pain. As part of her treatment plan, cupping therapy was being used to relieve muscle tightness. During the session, one of the cups detached and fell. I attempted to reapply it independently but was unsuccessful. I then informed an intern physiotherapist and requested assistance. When my senior physiotherapist returned, she advised me that as a physiotherapy student, I am expected to handle such procedures with appropriate knowledge and care.

**Feelings:** Before the incident, I felt confident, focused, and eager to apply my skills. When the cup detached, I felt surprised, embarrassed, and nervous under the pressure of the situation. Immediately after the failed reapplication, I felt disappointed in my performance and guilty about my lack of competence. Later, upon reflection, I felt regretful about my handling of the situation but grateful for the learning opportunity and motivated to improve my clinical skills.

**Evaluation:** The positive aspect of this experience was my recognition of my limitations and my decision to seek assistance when I encountered difficulty. However, the significant negative aspects included my inability to perform a basic clinical procedure independently, which extended the treatment session and disrupted the clinic schedule. This highlighted my insufficient practical training in cupping therapy and raised concerns about professional competence and patient safety.

**Analysis:** Cupping therapy is an evidence-based technique that creates negative pressure to facilitate soft tissue decompression, increase circulation, and provide pain relief. Proper application requires specific skills to prevent adverse effects such as bruising, blistering, or pain, which occur in 5-10% of poorly executed treatments. My difficulty in reapplying the cup demonstrated a gap between theoretical knowledge and practical competency. This lapse compromised clinical standards and professional ethics, as insufficient competence risks patient safety and violates the trust placed in healthcare professionals.

**Conclusion:** This experience emphasized the importance of mastering basic clinical procedures before attempting them independently. The incident revealed my current limitations in practical skills and reinforced that professional competence requires both knowledge and hands-on experience. The feedback from my senior physiotherapist highlighted the expectations placed on students during clinical placements and provided a clear direction for my professional development.

**Action Plan:** To ensure this does not recur, I will request supervision and guidance from clinical instructors before performing unfamiliar procedures and attend workshops or training sessions on cupping therapy. I will observe experienced physiotherapists closely during cupping sessions and practice these techniques in supervised settings while seeking immediate feedback to identify areas for improvement. This reflective process has transformed a challenging clinical experience into a valuable opportunity for developing my competence and confidence as a future physiotherapist.

## PP 135

### Reflection on a Patient Mobilization Incident

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**Description:** During my placement at a leading hospital in Colombo, I assisted a 68-year-old female patient on her fifth post-operative day following a right total hip replacement. The goal was early mobilization with a walker. I provided verbal instructions and positioned the walker, but failed to stabilize it adequately. As the patient stood, the walker shifted, causing a brief loss of balance. I immediately supported her and guided her safely back to bed. The supervising physiotherapist intervened, corrected the walker's position, and completed the session without further incident or injury to the patient.

**Feelings:** Initially, I felt confident and eager to apply my skills. During the incident, this shifted abruptly to shock, embarrassment, and overwhelming worry for the patient's safety. After the event, I felt relieved that no harm occurred, but was disappointed in my performance. This experience left me motivated and awakened to my professional responsibilities, reinforcing that competence must always precede confidence.

**Evaluation:** The positive aspects include my swift physical reaction, which prevented a fall, and my effective use of verbal cueing. However, the negative outcomes were significant. My failure to stabilize the walker and fully assess the patient's stability before the transfer compromised patient safety. This highlighted a critical lack of situational awareness and proper preparation in a high-risk task, underscoring a gap between theoretical knowledge and practical execution.

**Analysis:** Early mobilization is crucial post-hip replacement to prevent complications like thromboembolism and muscle deconditioning. My actions, however, contravened the fundamental principles of safe patient handling. Ensuring equipment is secure and using proper techniques are non-negotiable for preventing accidents. This incident was not merely an error in procedure but a lapse in professional judgment, prioritizing task completion over comprehensive patient safety protocols. The potential consequences, ranging from physical injury and emotional distress to legal and ethical ramifications, are severe.

**Conclusion:** This incident was a pivotal learning experience. It emphasized that adherence to clinical guidelines and meticulous preparation are the bedrock of safe and effective patient care. I recognized that my skills in pre-mobilization assessment and equipment checks required immediate improvement. True professionalism involves acknowledging limitations and seeking guidance to ensure patient well-being.

**Action Plan:** To ensure this does not recur, I will actively participate in training sessions on safe patient transfers and assistive device usage, and regularly practice manual handling techniques in simulated and clinical settings to build muscle memory and confidence. I will also conduct a thorough pre-transfer assessment of the patient's readiness, the environment, and the stability of all equipment before every mobilization, while planning my time effectively to avoid rushing any clinical task. Furthermore, I will proactively seek guidance from senior physiotherapists when uncertain, thereby fostering a culture of continuous learning and collaboration, as this reflective process has been instrumental in translating a moment of failure into a foundational step for my future professional development.



## Reflection on an Incident of Incorrect Therapeutic Posture

Dilumini.D<sup>1</sup>

<sup>1</sup>*School of Physiotherapy, International Institute of Health Sciences, Welisara, Sri Lanka*

**Description:** I am a physiotherapy student who was attending a placement at a private hospital in the Colombo District. A right-sided hemiplegic stroke patient came to the unit, and the senior physiotherapist instructed me to perform passive movements to the affected side. While I was conducting the treatment, the physiotherapist entered the cabin and observed my technique. He then asked, "Are you maintaining the correct physiotherapist posture?" referring to the walking stance posture. Once he pointed it out, I corrected my mistake and continued the treatment. After the patient left, he scolded me in front of my friends, saying, "Don't you know the correct posture and why it is important?"

**Feelings:** Initially, I felt embarrassed and anxious when my mistake was pointed out publicly. The scolding reduced my confidence and made it difficult to maintain focus during the remainder of the session. However, upon reflection, I recognized this as an important learning opportunity. The experience of working with a stroke patient was valuable, and despite the initial discomfort, the feedback ultimately helped me understand the critical importance of proper technique in clinical practice.

**Evaluation:** The positive aspects of this experience included the opportunity to practice on a stroke patient, receive direct supervision, and learn about correct posture implementation. However, the negative aspects were significant. My failure to maintain proper walking posture compromised both my safety and treatment quality. The public nature of the feedback, while uncomfortable, highlighted the importance of professional standards in clinical settings.

**Analysis:** The walking stance posture is a foundational ergonomic position in physiotherapy that ensures both therapist stability and patient safety during manual techniques. Proper posture reduces the risk of musculoskeletal injuries among healthcare professionals and allows for better force control during treatment. My failure to maintain this posture occurred due to inexperience and nervousness, despite theoretical knowledge of its importance. This gap between knowledge and practice represents a significant learning need in my professional development. The potential consequences included risk of injury to me, reduced treatment effectiveness, and compromised patient safety.

**Conclusion:** This experience taught me the critical importance of integrating theoretical knowledge with practical execution. Although I knew the correct posture theoretically, I failed to apply it in practice due to nervousness and inexperience. The feedback, while uncomfortable, provided valuable insight into areas needing improvement. I learned that true professionalism includes maintaining proper body mechanics during all patient interactions, and that attention to these details is essential for both therapist safety and treatment quality.

**Action Plan:** To ensure this does not recur, I will actively seek guidance from senior physiotherapists to learn and demonstrate correct handling techniques and will attend additional training sessions on ergonomics and safe body mechanics. I will practice these techniques regularly in simulated settings to build muscle memory and monitor my progress through self-reflection and supervisor feedback. This reflective process has been crucial in transforming a challenging experience into a valuable opportunity for professional growth and development as a physiotherapist.

## PP 137

### Reflection on the Professional Use of Gloves and Adherence to Infection Control Standards in a Clinical Setting

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**Description:** During a clinical placement in a private hospital in Colombo, I assisted a senior physiotherapist during ward rounds. While preparing to support a patient with breathing exercises and ambulation, I remained outside the room as a dressing procedure was in progress. I was wearing gloves in anticipation of patient contact, but the physiotherapist advised that walking around the ward with gloves was inappropriate and breached infection control standards.

**Feelings:** Initially, I felt embarrassed and uncomfortable after being corrected in front of others. I had not realized the importance of this rule before, and the experience made me feel anxious about my mistake. However, after reflecting on it, I understood that the feedback was constructive and meant to help me improve. I began to feel grateful that the physiotherapist addressed the issue, as it deepened my understanding of proper infection prevention practices and professional behavior in a clinical setting.

**Evaluation:** The positive aspect of this experience was that I gained valuable knowledge about infection control and professionalism. The physiotherapist's feedback helped me become more aware of the correct use of personal protective equipment (PPE), especially gloves. His immediate correction prevented me from continuing unsafe practice, which could have posed a risk to both patients and healthcare workers. The negative aspect was my lack of awareness and attention to small but crucial infection control details. Walking around with gloves on may seem minor, but it can contribute to cross-contamination and reduce trust in healthcare professionalism.

**Analysis:** Proper glove use is essential in preventing healthcare-associated infections. Gloves must be changed between tasks and should not be worn outside patient care areas, as unnecessary use increases the risk of cross-contamination. Correct donning and doffing, combined with effective hand hygiene, is vital to minimize infection risks and protect patient safety. This experience also reinforced the importance of professionalism, ethical conduct, and openness to feedback in strengthening nursing practice.

**Conclusion:** This experience reinforced the importance of maintaining infection control protocols and professional standards at all times. Although I initially felt embarrassed, I now appreciate how the situation taught me to be more attentive to detail. I learned that wearing gloves outside patient areas is not appropriate and can compromise infection control measures. The incident improved my understanding of PPE use, infection prevention, and the value of receiving constructive criticism with a positive mindset.

**Action Plan:** Moving forward, I will ensure that gloves are worn only during direct patient care and removed before leaving the bedside or clinical area. I will regularly review WHO and hospital PPE guidelines to reinforce correct practices. To avoid such mistakes, I plan to develop a short mental checklist before and after each patient encounter. I also intend to seek feedback from senior staff regarding my infection control practices and participate in infection prevention workshops. By doing so, I aim to maintain professionalism, ensure patient safety, and uphold the highest standards of nursing care.

## PP 138

### Reflection on the Timely Identification of Referred Pain from a Hip-Joint Pathology

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**Description:** During a clinical placement in a private hospital physiotherapy unit, I observed the assessment of a 26-year-old male with persistent lower back pain radiating to the buttock and groin. Despite negative neural tests, limited hip internal rotation and a positive Scour Test suggested referred pain from early hip pathology rather than a primary lumbar cause. This experience highlighted the importance of considering alternative sources, such as the hip joint, when evaluating patients with low back pain.

**Feelings:** Initially, I felt nervous and slightly overwhelmed, as this was one of my first independent assessments. When the physiotherapist explained the connection between hip pathology and lower back pain, I felt confused yet curious. As the session progressed and the reasoning became clearer, I felt grateful for the opportunity to learn a valuable clinical lesson. Afterward, I reflected on how this experience improved my diagnostic reasoning and deepened my understanding of the interrelationship between the musculoskeletal structures.

**Evaluation:** The positive aspect of this situation was that it improved my clinical reasoning and awareness of how pain can be referred from nearby structures. Observing the physiotherapist's systematic approach to differentiating between spinal and hip-related pain emphasized the value of thorough assessment and critical thinking. The negative aspect was my initial failure to consider causes beyond the lumbar spine, which could have led to misdiagnosis if not for the physiotherapist's guidance. This situation highlighted how experience and clinical knowledge play a key role in accurate diagnosis.

**Analysis:** Low back pain can arise from both mechanical and non-mechanical causes, making thorough assessment essential. When symptoms are atypical, evaluating adjacent joints, such as the hip, can help identify underlying conditions. In this case, the physiotherapist demonstrated strong clinical reasoning by recognizing that restricted hip movement could indicate early joint pathology. This experience reinforced the importance of comprehensive assessment, evidence-based decision-making, and ethical practice to ensure accurate diagnosis and safe, effective patient care.

**Conclusion:** This experience taught me that effective clinical assessment requires looking beyond the obvious source of pain. Considering referred pain patterns is essential for providing accurate and safe care. It also reinforced the importance of collaboration, critical thinking, and continuing education in physiotherapy and nursing. I realized that learning from experienced professionals and reflecting on each clinical encounter helps refine diagnostic accuracy and professional judgment.

**Action Plan:** In future clinical practice, I will perform comprehensive assessments that include screening adjacent joints when symptoms are unclear. I aim to strengthen my understanding of referred pain through continuous learning, use structured clinical reasoning tools to differentiate pain sources, and seek feedback from senior clinicians to enhance diagnostic accuracy. Ongoing self-reflection and adherence to evidence-based practice will support improved patient care and professional growth.

## PP 139

### Reflection on the Importance of Clinical Vigilance and Teamwork in Neuro ICU Physiotherapy

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**Description:** During a clinical placement in a Neuro ICU, I assisted in early physiotherapy for a post-craniectomy patient using passive range of motion exercises. While performing wrist and shoulder movements, I noticed slight bleeding at the IV cannula site and immediately informed my supervisor. The issue was promptly managed by the ICU team, preventing complications. This experience highlighted the importance of vigilance, prompt decision-making, and teamwork in ensuring patient safety during physiotherapy in critical care.

**Feelings:** At the start of the ICU session, I felt confident and motivated to apply my clinical skills. Observing bleeding at the cannula site triggered fear, anxiety, and guilt, as I worried about causing harm. Following prompt intervention by my supervisor and the nursing team, I felt relieved and reassured, though disappointed in myself for not checking the cannula beforehand. This experience highlighted the emotional challenges of clinical practice and the value of team support and reflective learning.

**Evaluation:** This experience highlighted both strengths and areas for improvement in ICU physiotherapy practice. Prompt recognition of bleeding and immediate reporting demonstrated vigilance, accountability, and effective teamwork, ensuring patient safety. Conversely, failing to check the cannula before exercises revealed a preventable oversight, emphasizing the need for thorough safety checks prior to all interventions. The incident reinforced the importance of careful preparation, supervision, and reflective learning in critical care settings.

**Analysis:** This incident emphasized the importance of observational skills, communication, and teamwork in the ICU. Early physiotherapy is vital for patient recovery but must be performed cautiously to prevent complications, such as dislodging medical lines. Prompt recognition and reporting of bleeding demonstrated clinical alertness and adherence to patient safety and ethical principles. The experience also highlighted the need for structured safety protocols, such as pre-treatment line checks, to ensure safe and effective rehabilitation in critical care settings.

**Conclusion:** This experience highlighted the critical importance of clinical vigilance, interprofessional communication, and adherence to safety procedures in high-risk ICU settings. Minor oversights, such as not checking a cannula before exercises, can jeopardize patient safety. Effective teamwork, prompt communication, and supportive supervision were essential in preventing harm and fostering a positive learning environment. The incident reinforced my commitment to performing physiotherapy interventions carefully, safely, and responsibly.

**Action Plan:** In future ICU practice, I will implement thorough pre-treatment safety checks, including verification of lines and cannulas, and utilize a structured checklist to minimize risks. I plan to enhance my skills through supervised placements, simulation training, and adherence to evidence-based guidelines. Active communication with multidisciplinary teams and ongoing professional development will support safe, effective physiotherapy and strengthen clinical judgment in critical care settings.

## PP 140

### Reflection on the Importance of Comprehensive Assessment in Identifying Referred Pain in Lower Back Pain Patients

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**Description:** During a clinical placement, I assessed a 26-year-old male with persistent low back pain radiating to the buttock and groin. Initial examination suggested a mechanical lumbar cause, but further assessment revealed limited hip internal rotation and a positive Scour Test, indicating early hip osteoarthritis with referred pain. This experience highlighted the importance of comprehensive, holistic assessment to identify non-lumbar sources of low back pain and avoid misdiagnosis.

**Feelings:** Initially, I felt nervous yet confident while performing an independent assessment. When my supervisor identified overlooked findings, I experienced embarrassment and frustration for not considering referred pain. This feedback highlighted the importance of thoroughness, vigilance, and curiosity in clinical practice. The experience reinforced that clinical confidence must be balanced with careful observation and openness to learning, especially in complex cases.

**Evaluation:** This experience provided hands-on exposure to differential diagnosis in low back pain, enhancing my understanding of clinical complexity and the importance of assessing adjacent structures. Supervisor feedback reinforced critical reflection, clinical reasoning, and multidisciplinary collaboration. The main limitation was my initial failure to recognize referred pain, highlighting the need for vigilance, thorough assessment, and a holistic approach to prevent misdiagnosis and ensure effective patient care.

**Analysis:** Low back pain (LBP) can arise from mechanical or non-mechanical causes, making accurate diagnosis challenging. Mechanical LBP originates from spinal or soft tissue structures, while non-mechanical LBP may involve referred pain from adjacent joints, such as the hip. In this case, failure to assess the hip led to overlooking early hip osteoarthritis as the true cause. The experience highlighted the importance of systematic, evidence-based assessments, considering non-mechanical sources, screening for red flags, and collaborating with senior clinicians to enhance clinical reasoning and ensure accurate diagnosis.

**Conclusion:** This experience highlighted the importance of comprehensive, holistic assessment beyond the site of reported pain to avoid misdiagnosis. Considering referred pain from adjacent structures, such as the hip or sacroiliac joint, is essential in low back pain evaluation. Supervision and mentorship played a key role in guiding accurate diagnosis, reinforcing that professional growth relies on technical skill, openness to feedback, and reflective learning.

**Action Plan:** In future practice, I will conduct comprehensive assessments that include screening for red flags and adjacent joint involvement. I plan to enhance understanding of referred pain through ongoing education, literature review, and observation of experienced clinicians. Structured documentation, differential diagnosis practice, and collaboration with supervisors and interdisciplinary teams will guide safe, effective, and patient-centered care. These strategies aim to strengthen clinical reasoning, professional competence, and reflective practice in physiotherapy.

## PP 141

### Reflection on Assisted Baby Bathing and Wrapping

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**Description:** During my clinical placement in the maternal ward of a private hospital in Sri Lanka, I assisted a midwife in bathing and dressing a newborn who had completed the first 24 hours of life. I prepared the baby's clothes and blanket, applied cologne, and, under the midwife's guidance, dressed the baby, including a hat, socks, and gloves, while gently drying the umbilical cord with sterile gauze. The procedure concluded with securely wrapping the baby and returning her to the mother for feeding, allowing me to observe and practice safe newborn care techniques.

**Feelings:** Before assisting with newborn care, I felt excited yet nervous, aware of the need for gentleness and precision. During the procedure, following the midwife's guidance, I focused on preparing the baby's clothes and dressing and wrapping the newborn carefully, gradually gaining confidence and remaining calm. After completing the task successfully, I felt proud, relieved, and motivated to continue developing my newborn care skills.

**Evaluation:** During the baby-wrapping experience, I actively participated in newborn care by safely dressing and wrapping the baby under the midwife's guidance and returning her to the mother. I handled the infant gently, organized clothing and blankets, and applied cologne, demonstrating professionalism by seeking permission before proceeding. The experience enhanced my skills in attention to detail, patience, communication, and safe practice, while boosting my confidence and highlighting the importance of teamwork, guidance, and integrating technical and interpersonal skills in nursing practice.

**Analysis:** Asking permission before dressing the newborn demonstrated professionalism and proactive engagement, which research shows enhances learning outcomes and fosters a culture of safety in clinical settings. Supervision by the midwife was crucial for skill development, supporting adherence to standard procedures and promoting mentorship. The experience allowed practical application of theoretical knowledge, bridging classroom learning with real-world practice, while positive feedback from the senior nurse reinforced self-efficacy, motivation, and professional growth in maternal and newborn care.

**Conclusion:** This experience provided a valuable learning opportunity in newborn care, emphasizing gentle and safe handling during dressing, wrapping, and umbilical cord care. Guided supervision reinforced the importance of mentorship in building confidence and ensuring correct procedures, while taking initiative, communicating effectively, and collaborating with healthcare professionals highlighted key aspects of professional practice. Reflecting on the event, I recognized how hands-on experience and feedback contribute to skill development, personal growth, and increased confidence and competence in performing similar tasks in the future.

**Action Plan:** To build on this experience, I plan to continue practicing gentle and safe newborn handling while taking initiative and following instructions carefully. I will enhance my skills through regular clinical practice, simulation sessions, and observation of experienced professionals, while preparing mentally by reviewing steps, visualizing procedures, and using techniques like deep breathing and positive self-talk to manage anxiety. By combining confidence, supervision, and effective communication, I aim to perform tasks efficiently and safely, maintain professionalism, and further develop both technical and interpersonal skills, translating lessons learned into lasting improvements in my nursing practice.

## Reflection on Assisting with Breastfeeding in a Maternal Ward

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**Description:** During my clinical placement in the maternity ward at a private hospital in Wattala, I assisted a first-time mother, six hours postpartum, in initiating breastfeeding under the supervision of a senior midwife. I prepared the environment, guided the mother in proper positioning, and demonstrated techniques to achieve an effective latch. With encouragement and adjustments, the baby latched successfully, allowing the mother to gain confidence in breastfeeding.

**Feelings:** Before the procedure, I felt a mix of excitement and anxiety, concerned about performing independently and providing safe care in a busy ward. As I began, nervousness persisted, but reassurance from my supervisor and the mother's cooperation helped me focus on the technical steps. After completing the procedure successfully, I felt relief and pride, reinforced by positive feedback and the mother's trust, which strengthened my confidence and appreciation for the learning experience.

**Evaluation:** During the breastfeeding assistance, I successfully created a calm, supportive environment, providing clear guidance on positioning and latching that enabled effective initiation without complications. Supervisor input and teamwork reinforced my confidence, while patience and empathy helped the mother feel at ease, reflecting the importance of communication in maternal care. However, initial hesitation in giving instructions, excessive focus on technical steps over emotional support, and time management challenges highlighted areas for improvement in confidence, holistic care, and efficiency in a busy clinical setting.

**Analysis:** A root-cause analysis of my breastfeeding assistance experience identified several factors influencing my initial anxiety. As one of my earliest opportunities to support a first-time mother, the novelty of applying theoretical knowledge in a real clinical setting added emotional responsibility. The moderately busy maternity ward heightened pressure, as multitasking demands can challenge student confidence. Additionally, performing under supervisor observation intensified fear of making mistakes. These factors collectively explain my initial nervousness, despite ultimately providing effective support to the mother.

**Conclusion:** Reflecting on this experience, I learned the importance of emotional self-awareness and developing coping strategies to manage anxiety in clinical settings. Recognizing early signs of stress allows for timely intervention, while building confidence through practice and utilizing support systems enhances performance. The experience underscored the continuous journey of personal and professional growth essential for effective and resilient nursing practice.

**Action Plan:** To enhance future performance in breastfeeding assistance, I plan to focus on skill development and emotional preparedness. This includes seeking supervised practice to build confidence, improving communication through clear, calm guidance, and practicing role-play and simulation to strengthen assertiveness. I will also work on time management to balance thoroughness with efficiency and apply emotional regulation strategies, such as deep breathing and self-reflection, to remain calm under pressure and foster patient trust.

## PP 143

### Reflecting on Unprofessional Conduct and Maintaining Professionalism on the First Clinical Day

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**Description:** On the first day of clinical placement at a leading hospital in Colombo, the student was filled with excitement and anticipation, feeling proud wearing the clinical coat. Amidst this enthusiasm, the student took personal pictures to capture the occasion but momentarily forgot the professional expectations of the clinical setting. The supervisor noticed this, scolded the student, and gave a reminder about the necessity of maintaining professionalism and adhering to workplace protocols.

**Feelings:** Initially feeling Excited and Proud, the emotions during the incident quickly shifted to Panic and Confusion. Afterward, the student felt Embarrassed and Disappointed. The experience also included learning about workplace expectations.

**Evaluation:** Positively, the student gained experience in a professional environment and learned about workplace expectations. Negatively, the student unintentionally violated professional boundaries and felt uncomfortable after the supervisor's feedback.

**Analysis:** The main problem was unprofessional behavior on the first clinical day, caused by over-excitement leading to distraction. Starting a clinical placement requires professionalism, balancing enthusiasm with workplace expectations. Taking personal photos without permission may breach ethical guidelines and potentially violate patient confidentiality. Supervisors guide students by reinforcing professional behavior, and learning from constructive criticism helps students adapt and develop resilience.

**Conclusion:** The experience served as an important lesson about professionalism. It highlighted the necessity of asking before taking pictures and controlling excitement to stay focused. Understanding the clinic policies and following privacy regulations is crucial to prevent potential loss of credibility.

**Action Plan:** The highest-ranked solution is Maintaining professionalism. The action plan includes familiarizing myself with clinic policies before starting work, observing professional behavior from supervisors and colleagues, and reflecting on my actions to ensure professionalism. The student will also seek clarification from a mentor or supervisor if unsure.



## PP 144

### Reflection on Napkin Changing and Draping in a Maternal Ward

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**Description:** During my night shift in the maternal ward of a leading hospital in Wattala, I assisted a first-time mother in caring for her newborn following a normal vaginal delivery. When the baby required a napkin change, I performed the task under the supervision of a senior nurse, following proper hygiene and handling techniques to clean, change, and securely drape the infant. The mother and guardian expressed gratitude, and the senior nurse commended my care, which enhanced my confidence, compassion, and practical skills in maternal and newborn care.

**Feelings:** Before the procedure, I felt confident and eager to perform the napkin changing and draping task carefully. During the procedure, I remained attentive and cautious, mindful of the baby's small size and the risk of slipping. After successfully completing the task and receiving praise from the senior nurse, I felt relieved, proud, and more confident in my ability to provide safe and delicate newborn care.

**Evaluation:** The experience was largely positive, boosting my self-confidence and practical skills in newborn care, while the gratitude from the mother and guardian and praise from the senior nurse reinforced my sense of accomplishment and motivation. Challenges included initial nervousness, the delicate nature of handling a newborn, fatigue during a night shift, and time pressures, as well as providing extra guidance to the guardian, highlighting the need for careful planning and patient-centered support in such situations.

**Analysis:** Proper diapering and newborn care are essential for preventing infections, maintaining skin integrity, and supporting thermal regulation. Frequent diaper changes reduce the risk of urinary tract infections, while prompt and thorough cleaning of meconium prevents skin irritation and infection. Gentle cleansing with soft wipes or warm water, ensuring the skin is dry before applying a fresh diaper, helps prevent dermatitis. Additionally, appropriate draping or swaddling maintains body temperature while allowing safe movement, supporting overall newborn health and comfort.

**Conclusion:** Assisting with a newborn's napkin change and draping during a night shift enhanced my practical skills, confidence, and compassion in maternal and newborn care. Despite initial nervousness and the pressures of a busy shift, I performed the procedure safely and effectively under senior supervision. The gratitude of the mother and guardian, along with praise from the senior nurse, underscored the importance of attentive, evidence-based, and holistic care, reinforcing my commitment to safe and high-quality nursing practice.

**Action Plan:** Improving newborn care and patient safety requires a comprehensive approach that combines mentorship, regular training, and adherence to evidence-based protocols. Supporting staff through guidance and reflective practice builds confidence and competence, while ongoing education in infection control and patient rights ensures hygiene and legal compliance. Maintaining functional call systems and monitoring adherence through audits further enhances timely, accountable care. Together, these strategies promote clinical excellence, reduce errors, improve patient outcomes, and foster a culture of safety and professionalism.

## PP 145

### Reflection on Initiating Breastfeeding Post-LSCS

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**Description:** I assisted a post-LSCS mother in the General Operating Theatre of a private hospital to initiate breastfeeding under the supervision of a senior nurse. I prepared the environment, educated the mother on the benefits of breastfeeding, and supported her with proper positioning and latching, while the senior nurse provided guidance and reassurance. The mother and baby actively participated, and the newborn successfully suckled colostrum. The experience strengthened my skills and confidence in supporting breastfeeding and highlighted the value of teamwork and patient-centered postnatal care.

**Feelings:** I initially felt anxious due to the challenges mothers face after LSCS, but I remained hopeful that proper guidance would lead to successful breastfeeding. During the procedure, I felt responsible, empathetic, and focused on providing comfort and encouragement. After the newborn successfully latched, I felt relieved, proud, and more confident in my professional abilities, recognizing the positive impact of supportive breastfeeding care.

**Evaluation:** The experience was largely positive, as the baby successfully latched within the first hour, promoting bonding and leaving the mother relieved and happy, while I was able to apply evidence-based breastfeeding techniques effectively. However, the process was challenged by the mother's discomfort during positioning due to postoperative pain.

**Analysis:** Breastfeeding after a caesarean section can be challenging due to pain, delayed recovery, and positioning difficulties, yet early support and evidence-based care can lead to successful outcomes. In this case, breastfeeding was initiated within the first hour, aligning with WHO recommendations and promoting bonding, immunity, and milk production through strategies such as skin-to-skin contact and supportive positioning. Although postoperative pain initially interfered, reassurance and encouragement helped overcome this barrier, reflecting the nurse's role in providing both physical and emotional support. Overall, the experience highlights the importance of effective communication, ethical practice, and adherence to breastfeeding guidelines such as the BFHI to facilitate positive maternal and neonatal outcomes.

**Conclusion:** This experience enhanced my confidence and skills in supporting breastfeeding after LSCS, demonstrating how evidence-based interventions, reassurance, and a supportive environment can overcome challenges such as maternal discomfort and delayed initiation. The successful latch, improved bonding, and maternal satisfaction highlighted the importance of timely assistance, effective communication, and collaborative care, reinforcing the value of addressing both physical and emotional needs to achieve positive outcomes for mother and newborn.

**Action Plan:** I aim to strengthen early breastfeeding support by promoting timely skin-to-skin contact, providing effective positioning techniques, and maintaining empathetic communication to build maternal confidence. I will also prioritize comfort measures to minimize post-surgical pain and avoid overlooking maternal discomfort during breastfeeding initiation. In future practice, I would collaborate earlier with the surgical team and involve family support to enhance comfort and facilitate successful breastfeeding outcomes.

## PP 146

### Reflection on Administering Medication to an Anxious Child

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**Description:** During my clinical placement in the pediatric ward of a well-known private hospital in Wattala, I was assigned to administer antibiotic ear drops to a 5-year-old boy named Leo, who was anxious and resistant to treatment. To ease his fear, I used a child-centered approach by communicating in simple, reassuring language, explaining the purpose of the medicine as “magic water” to make his ear strong, and involving him by letting him hold the bottle and my hand during the procedure. This approach reduced his anxiety and promoted cooperation, allowing the medication to be administered smoothly.

**Feelings:** I initially felt apprehensive due to Leo’s previous distress during treatment, but as I built rapport and used a calming, child-friendly approach, my confidence and empathy grew. Throughout the procedure, I remained focused and reassured by Leo’s positive response, which made me feel calm and in control. After successfully administering the ear drops, I felt proud and accomplished, especially after receiving positive feedback from the senior nurse, which reinforced my commitment to patient-centered pediatric care.

**Evaluation:** The experience was highly positive, as I successfully administered the ear drops without causing distress, balancing correct medical procedure with the child’s comfort and emotional well-being. This approach marked a significant improvement over prior attempts, transforming a previously negative experience into a positive one. Effective communication and trust-building with the pediatric patient were key factors in achieving a successful and patient-centered outcome.

**Analysis:** Pediatric patients often experience anxiety and fear, which can make care challenging. Research indicates that adequate clinical training and exposure help healthcare providers manage these situations effectively. Additionally, employing distraction and calming techniques is essential to create a positive and supportive experience for the child.

**Conclusion:** This experience emphasized the importance of a holistic, patient-centered approach in pediatric nursing. While technical competence is essential, the success of the intervention relied on integrating effective communication, trust-building, and patient empowerment with the procedural task. Taking time to connect with the child transformed a potentially distressing experience into a positive one, reinforcing that nursing is as much about compassionate relationship-building as it is about performing clinical tasks.

**Action Plan:** For future practice, I plan to develop a “toolkit” of child-friendly analogies for common procedures, actively involve pediatric patients in their care to promote empowerment, and share successful strategies with peers during clinical debriefs. Additionally, I will continue using reflective practices, such as Gibbs’ Reflective Cycle, to analyze challenging cases and identify improvements, reinforcing the importance of communication, rapport, and patient-centered care in pediatric nursing.

**PP 147**  
**Reflection on Bathing a Newborn Immediately after Feeding**  
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**Description:** During my clinical placement in the maternal ward of a reputed private hospital, I encountered an incident involving a 28-year-old primigravida mother who had delivered her baby through a normal vaginal delivery at 39 weeks of gestation. The baby was healthy, weighing 3.1 kg, and was exclusively breastfed. On the morning of 13th March 2025, the midwife and senior nurse instructed me, as a student nurse, to prepare the necessary equipment for the baby's bath. I gathered all required materials, including warm water, sterile cotton balls, a towel, baby soap, and clean clothing. After setting up, the midwife asked the mother about the baby's last feed. The mother stated that the baby had just been fed. At that moment, I realized that I had failed to check this before arranging the procedure. The senior staff decided to postpone the bath to prevent complications such as regurgitation or aspiration.

**Feelings:** At first, I felt confident and motivated because I was entrusted with preparing for the newborn's bath, a procedure I was excited to assist with. However, when I realized that I had overlooked the baby's recent feeding, my confidence quickly turned into anxiety and embarrassment. I felt nervous about my mistake and worried about the potential harm it could have caused. Although no adverse event occurred, I was disappointed in myself for not applying my theoretical knowledge in practice. Later, I felt relieved that the senior nurse had identified the issue before the procedure, and I recognized the experience as an important learning opportunity for professional growth.

**Evaluation:** The incident had both positive and negative aspects. Positively, I followed directions well, organized the materials efficiently, and maintained good teamwork with the staff. This showed my readiness to participate in clinical tasks. However, the negative aspect was my failure to assess the baby's readiness for the bath, specifically the feeding time. Bathing immediately after feeding could cause regurgitation or aspiration, posing serious risks to the newborn. This mistake helped me realize the importance of holistic assessment rather than focusing only on technical preparation. Despite my initial embarrassment, the supportive feedback from senior staff encouraged me to reflect rather than feel discouraged.

**Analysis:** Newborns should be bathed only when they are stable, not immediately after a feed. According to Priyadarshi et al. (2021), delaying a bath until the infant is physiologically stable helps prevent aspiration and hypothermia. Kahsay et al. (2022) also highlighted that bathing soon after feeding can increase regurgitation risk and discomfort. This experience relates to Benner's Novice-to-Expert model, where novice nurses tend to focus on completing tasks rather than integrating clinical reasoning. I realized that I was task-oriented instead of assessing the broader situation, which is an essential skill for safe nursing care.

**Conclusion:** This incident strengthened my understanding that patient safety depends not only on completing procedures correctly but also on careful timing and assessment. It emphasized the need to think critically before acting and to communicate effectively with senior nurses to clarify uncertainties. Although I made an avoidable mistake, it became a valuable experience that improved my awareness, confidence, and responsibility in newborn care.

**Action Plan:** To manage similar incidents in the future, I will always confirm the baby's last feeding time before preparing for a bath, ensure proper communication with senior nurses, and follow newborn care guidelines carefully. I will also review safe practice protocols regularly, continue reflecting after each clinical activity, and focus on improving my decision-making and clinical reasoning skills to ensure safer and higher-quality care.

## PP 148

### Reflection on Administering Eye Medication to a Pediatric Patient

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**Description:** During my pediatric ward placement at a reputed private hospital in Colombo, I was involved in administering medication to a 6-year-old male child who was admitted with bacterial conjunctivitis. Under the supervision of a senior nurse, I was instructed to prepare for the administration of chloramphenicol 0.5% eye drops prescribed to be given one drop every six hours. After checking the Bed Head Ticket (BHT), I performed the three checks and five rights with the senior nurse. We approached the patient and his mother, and the senior nurse explained the procedure to reduce anxiety. I then performed hand hygiene, wore gloves, positioned the child supine, and gently retracted the lower eyelid to instill the medication into the conjunctival sac without touching the dropper tip. The child was asked to blink slowly, and excess medication was wiped with sterile gauze. The procedure was completed smoothly, and the administration was documented in the BHT.

**Feelings:** Before the procedure, I felt both excited and anxious because it was my first time administering eye medication to a child. I was confident in my theoretical knowledge but slightly nervous about performing the skill correctly. During the procedure, I felt a bit of pressure to maintain accuracy, especially to avoid touching the dropper to the eye. However, I stayed focused and calm. After successfully completing the procedure, I felt happy, relieved, and satisfied with my performance. My confidence increased as I realized that I had successfully translated my classroom learning into a real clinical situation.

**Evaluation:** The experience had both positive and challenging aspects. Positively, I successfully applied the theoretical knowledge I learned in nursing school into practice and gained hands-on experience. I demonstrated effective communication with the patient and the parent, followed aseptic techniques, and ensured the correct procedure was performed under supervision. The positive feedback from the senior nurse boosted my confidence. However, I initially felt anxious and feared making a mistake, which showed that I need to further improve my self-confidence during clinical tasks. Overall, the experience was a meaningful learning opportunity that enhanced my practical nursing competence and understanding of pediatric care.

**Analysis:** Administering eye medication correctly is essential to ensure the effectiveness of treatment and prevent complications. Studies have shown that chloramphenicol 0.5% eye drops are highly effective in treating bacterial conjunctivitis, leading to symptom resolution within 9 days in most patients (Laerum et al., 1994). However, improper administration may cause side effects such as irritation or stinging (NHS, 2022). Therefore, nurses must strictly adhere to the “Five Rights” of medication administration: right patient, right drug, right dose, right route, and right time along with the “Three Checks” method to avoid errors (Hanson & Haddad, 2023). This incident helped me understand that safe drug administration, especially in pediatric care, requires accuracy, confidence, and proper supervision. It also reflected Benner’s Novice-to-Expert theory, as I moved from following instructions to understanding the reasoning behind safe practice.

**Conclusion:** This experience allowed me to improve my skills in safe drug handling and patient communication. I learned that confidence must come from proper preparation and adherence to protocols. I also realized the importance of remaining calm and maintaining professional focus during procedures. The incident helped me develop greater awareness of patient safety, effective teamwork, and emotional control in clinical practice.

**Action Plan:** I will improve my clinical competence by practicing more under supervision and enhancing my critical thinking and communication skills. I will strictly follow safety guidelines, including the five rights and three checks, and seek guidance when needed to ensure safe and patient-centered care.

## PP 149

### Reflection on Performing a Nasogastric (NG) Feeding Procedure for the First Time

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**Description:** During one of my clinical placements in the Intensive Care Unit (ICU), I was assisting the nurse in charge when I was given the opportunity to perform a Nasogastric (NG) feeding procedure for the first time. After obtaining permission from the ward supervisor, I prepared the necessary equipment and ensured all pre-checks were completed, including verifying the correct placement of the NG tube by listening for the distinctive “pop” sound. Although I felt nervous at first, I maintained focus and performed each step carefully under the supervision of the nurse. She guided me throughout the process, reminding me to hold the feeding port securely to prevent any disconnection or leakage. The procedure was completed successfully, and the nurse commended me for my effort, providing constructive feedback that helped me identify areas for improvement.

**Feelings:** Before the procedure, I was anxious and slightly tense, as this was my first time performing an NG feeding on a real patient. I wanted to ensure that everything went smoothly so that the nurse would trust my abilities. During the procedure, my anxiety lessened as I focused on following each step accurately. Hearing the confirming sound that the tube was properly positioned gave me relief and confidence. After completing the procedure, I felt satisfied and proud, though I realized that I had not held the feeding port firmly enough, which could have caused a minor leak. The nurse’s kind feedback made me feel supported and motivated to improve. This experience built my confidence and made me realize how valuable real-life practice is compared to simulation.

**Evaluation:** This experience was a valuable learning opportunity that boosted my knowledge and confidence. The procedure was completed successfully with proper preparation and verification, aided by my supervisor’s supportive guidance. I realized the need for greater attention to securing the feeding port and tube connection. Overall, the experience reinforced the importance of attentiveness, careful technique, and patient safety while effectively applying theoretical knowledge in practice.

**Analysis:** Nasogastric feeding is an essential nursing procedure that ensures safe nutrition and medication delivery for patients unable to eat orally. Accurate tube placement and proper technique are vital to prevent complications like aspiration or infection. Mistakes such as failing to confirm placement can cause serious harm. Although performing invasive procedures can cause anxiety for nursing students, supportive supervision and reflection turn these moments into valuable learning experiences. This incident helped me connect theory with practice and emphasized the importance of vigilance, patient monitoring, and teamwork in clinical care.

**Conclusion:** This experience emphasized the importance of proper preparation, communication, and supervision in nursing procedures. It showed me how essential it is to stay calm, focused, and attentive to small details, as they directly affect patient safety and procedure outcomes. Performing NG feeding under guidance gave me valuable real-world exposure, improving my confidence and ability to act responsibly in clinical situations. Reflection on this event has helped me identify key areas for growth in my nursing practice.

**Action Plan:** To improve my competency, I plan to practice NG feeding using a structured and systematic approach. I will revisit the updated NG feeding guidelines, observe experienced nurses during procedures, and actively seek feedback from supervisors. I will pay special attention to securing the feeding port and maintaining correct hand positioning throughout the process. Continuous reflection, regular simulation practice, and adherence to infection control protocols will strengthen my technical and decision-making skills. In future procedures, I aim to apply these improvements to ensure safe, confident, and effective patient care.

## PP 150

### Reflection on the Administration of a Subcutaneous Injection in an Elderly Patient

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**Description:** During my clinical placement in the vaccine room, I administered a subcutaneous injection of Erythropoietin (Epiao 4000IU) to an 80-year-old female patient with chronic kidney disease. This was my first time performing a subcutaneous injection on a real patient. Under the supervision of a senior nurse, I prepared the equipment, maintained aseptic technique, and completed the procedure successfully. The patient responded positively, and the procedure was performed without complications.

**Feelings:** Before the procedure, I felt nervous and anxious due to my lack of real-life experience. My heart raced and my hands trembled slightly, but I reminded myself to stay calm and follow proper steps. During the injection, hearing my supervisor's reassurance helped me focus and gain confidence. Afterward, I felt relieved, proud, and grateful for successfully completing the procedure despite my anxiety.

**Evaluation:** The experience had both positive and challenging aspects. I successfully maintained aseptic technique and ensured patient comfort throughout, demonstrating correct administration. However, my nervousness affected my preparation speed and confidence. I recognized the importance of developing emotional control and confidence when performing clinical tasks under observation.

**Analysis:** The main cause of my nervousness was limited hands-on practice with real patients. Although simulation training provided foundational knowledge, real-life scenarios involve emotional and ethical responsibilities that increase pressure. The calm supervision of the senior nurse provided essential support and guidance, enhancing my focus and confidence. This experience highlighted the need for continuous clinical exposure, mentorship, and emotional resilience in nursing practice.

**Conclusion:** This reflection helped me identify my strengths and areas for improvement. I successfully carried out the procedure while ensuring patient safety and professionalism. I learned that thorough preparation, adherence to protocols, and emotional regulation are key to providing safe and compassionate care. This experience strengthened my confidence and reminded me of the importance of continuous learning in clinical practice.

**Action Plan:** To enhance future performance, I plan to engage in more supervised clinical practice to improve confidence and technique. I will seek mentorship from experienced nurses and attend stress management training to better control anxiety. Following hospital protocols and maintaining professionalism will remain priorities. I aim to contribute to a supportive learning environment and continuously refine my clinical and emotional skills to ensure safe, competent patient care.

## PP 151

### Reflecting on Diagnostic Oversight and Red Flags in Lower Back Pain Assessment

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**Description:** During a clinical placement at a renowned private hospital in Colombo, the student assessed a 26-year-old male banker with constant lower back pain (LBP). Despite a thorough assessment, the student concluded the cause was mechanical muscle strain. The supervising physiotherapist subsequently uncovered critical red flag signs including unexplained weight loss, mild fever, and generalized weakness which the patient had previously overlooked. The physiotherapist immediately recommended a physician consultation, emphasizing that these signs could indicate a serious underlying condition, possibly malignancy.

**Feelings:** Initial feelings were nervous and confident during the assessment. However, after the physiotherapist's intervention, the student felt ashamed for missing a major red flag and regretful for not being cautious of correct diagnostic protocols.

**Evaluation:** Positively, the incident highlighted the critical importance of looking beyond musculoskeletal issues and the value of multidisciplinary healthcare collaboration. Negatively, the student failed to obtain key systemic symptoms, resulting in an incorrect diagnosis and shaken confidence.

**Analysis:** The error stemmed from a lack of vigilance in identifying systemic red flags and insufficient depth in history-taking. LBP is classified as mechanical (localized, improves with rest, no systemic symptoms) or non-mechanical (constant pain, accompanied by systemic symptoms like fever or weight loss). Missing these red flags delayed the recognition of a potential non-mechanical cause, such as malignancy, which requires immediate referral.

**Conclusion:** The experience underscored the critical importance of recognizing red flags to prevent inappropriate treatment and potential patient harm. Thorough history-taking and effective probing questions are essential for accurate, holistic patient care.

**Action Plan:** The student plans to request additional placement hours and use academic resources to deepen understanding of systemic red flags. Other actions include adopting the SOAP method for systematic documentation and actively seeking feedback from supervisors to enhance multi-disciplinary diagnostic skills.



## PP 152

### Reflection on Performing a Nasogastric (NG) Feeding Procedure for the First Time

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**Description:** This reflection focuses on an incident that occurred during my clinical placement in the medical ward of a private hospital. During a busy morning shift, the senior nurse assigned me to perform a nasogastric (NG) feeding for a 73-year-old male patient diagnosed with intestinal obstruction. It was my first time performing this procedure. After preparing the necessary equipment and ensuring infection control measures, I explained the procedure to the patient and positioned him in a semi-Fowler's position. I confirmed the correct placement of the NG tube through auscultation, aspiration of gastric contents, and litmus paper testing. Then, I administered 200 ml of milk with water, followed by 50 ml of water for flushing. The procedure was completed successfully under the supervision of the senior nurse, and the patient tolerated it well.

**Feelings:** Before the procedure, I felt nervous and slightly anxious because it was my first time performing NG feeding. At the same time, I was excited to apply my theoretical knowledge in a real clinical setting. During the procedure, I focused carefully on each step, and as it progressed smoothly, my confidence increased. After completing the feeding successfully, I felt relieved, proud, and grateful when the senior nurse appreciated my effort.

**Evaluation:** The positive aspect of this experience was successfully performing the procedure without complications. I maintained proper hand hygiene, used personal protective equipment, and confirmed NG tube placement using reliable methods, which ensured patient safety. The patient was calm and cooperative throughout, showing that my explanation helped reduce anxiety. However, I took longer than expected due to nervousness, showing that I need more practice to improve my efficiency.

**Analysis:** This incident highlighted the importance of following proper clinical procedures and infection control practices to ensure patient safety. Effective communication and supervision from the senior nurse helped me gain confidence. Studies emphasize that verifying NG tube placement through multiple methods reduces the risk of aspiration and ensures accurate feeding (Pathrose et al., 2021). The experience also reinforced the importance of teamwork, as support from the senior nurse enhanced learning and performance.

**Conclusion:** This experience allowed me to apply theoretical knowledge to practice and gain confidence in performing NG feeding safely. I understood the significance of patient communication, infection control, and teamwork in delivering high-quality care. The positive feedback I received encouraged me to continue improving my clinical skills.

**Action Plan:** In future practice, I plan to review the NG feeding procedure regularly, seek guidance from senior nurses, and participate in simulation sessions to improve my efficiency and confidence. I will continue to follow infection control measures, confirm tube placement accurately, and provide clear explanations to patients to ensure safety and comfort.