2nd ICETMTSHS 2025
International Conference on Emerging Trends in Management, Technology, Social and Health Sciences

LINCOLN UNIVERSITY COLLEGE DKU016 (B)

2022 SETARA COMPETITIVE UNIVERSITY COLLEGE

ISO 9001:2015 Certified

ICETMTSHS 2025

2nd INTERNATIONAL CONFERENCE ON Emerging Trends in Management, Technology, Social and Health Sciences

Venue: Summit Hotel Subang USJ, Malaysia

Date: 23rd & 24th April, 2025

Organised By:

Lincoln University College, Malaysia

In collaboration with

- Institut Kesehatan Payung Negeri, Pekanbaru
- Universitas Baiturrahmah, Padang
- STIKes Widya Dharma Husada Tangerang
- Universitas Murni Teguh

CPD A1-15 points — Awarded by Assistant Medical Officer Ministry of Health Malaysia

CPD A1-15 points — Awarded by Medical Laboratory Technologist Ministry of Health Malaysia

CPD A1-14 points — Awarded by New Pharmacy Staff Ministry of Health Malaysia

CPD A1-15 points — Awarded by Physiotherapist Ministry of Health Malaysia

CPD A1-15 points — Awarded by Registered Nurse Ministry of Health Malaysia

CPD A1-15 points — Awarded by Nurse Assistant Ministry of Health Malaysia

CPD A1-15 points — Awarded by Midwife Ministry of Health Malaysia

CPD A1-16 points — Awarded by Medical Officer-MMC Ministry of Health Malaysia

CPD A1-15 points — Awarded by Community Nurse Ministry of Health Malaysia

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Prof. Datuk Dr. Hajjah Bibi Florina Abdullah
Pro-Chancellor
Lincoln University College, Malaysia

Distinguished guests, esteemed scholars, industry experts, partners, colleagues, and participants from across the globe,

It is with great pleasure and a deep sense of purpose that I welcome you all to the 2nd International Conference on Emerging Trends in Management, Technology, Social and Health Sciences—ICETMTSHS 2025.
This year's theme, "Exploring Technology for Equitable and Sustainable Health Promotion in line with the UN Sustainable Development Goals", resonates profoundly with the times we live in. As we stand at the intersection of innovation and human need, our shared responsibility is to ensure that the advancements in technology are not just groundbreaking, but also inclusive, accessible, and sustainable.

The United Nations Sustainable Development Goals call for global partnerships and local actions that leave no one behind. In this context, the role of technology—when applied thoughtfully and ethically—becomes a powerful lever to bridge health disparities, improve healthcare systems, and enhance the well-being of communities around the world.

This conference represents more than an academic gathering. It is a melting pot of ideas, a forum for impactful dialogue, and a launchpad for collaborative solutions that span disciplines and borders. As we delve into the intersections of management, technology, social sciences, and health, let us be reminded that real progress demands synergy between sectors and a shared vision anchored in humanity.

I commend the organizing committee, our academic partners, and each one of you who have traveled—physically or virtually—to be part of this important dialogue. Your presence here today is a testament to your commitment to advancing knowledge, fostering innovation, and promoting equity in global health.

May the insights, collaborations, and connections forged during this conference lead to tangible outcomes that uplift lives and shape a better, healthier world for all.

Thank you, and I wish you all a successful and enriching conference.

Datuk Dr. Hji. Bibi Florina Abdullah
Pro Chancellor
Lincoln University College

Dr. Amiya Bhaumik
President
Lincoln University College, Malaysia

Distinguished delegates, esteemed scholars, industry leaders, students, and friends,

With immense joy and gratitude, I welcome you all to the 2nd edition of the International Conference on Emerging Trends in Management, Technology, Social and Health Sciences—ICETMTSHS 2025. It is a true honor to stand before such a diverse and dynamic audience of innovators, researchers, educators, practitioners, and visionaries. Your presence here reflects a shared passion for progress and a collective commitment to shaping a healthier, more equitable world.

When we envisioned this conference series, our goal was to create a platform where disciplines would converge, boundaries would be challenged, and innovative ideas would be born—ideas capable of addressing the complex challenges facing our world today.

This year's theme, "Exploring Technology for Equitable and Sustainable Health Promotion in line with the UN SDGs", could not be more timely. We live in an age where technology is transforming the landscape of healthcare, breaking down traditional barriers to access, and opening new frontiers of possibility. But technology alone is not the answer—it must be guided by principles of equity, sustainability, and human dignity.

Through this conference, we aim to foster meaningful conversations and collaborations across management, science, technology, and the social and health sciences. It is in this interdisciplinary space that we can begin to reimagine solutions that are both innovative and inclusive.

As we begin these two days of knowledge-sharing and thought-provoking dialogue, I encourage each of you to fully engage—ask questions, share your insights, and connect with one another. Let this be more than a conference; let it be a catalyst for lasting impact.

I would like to extend my heartfelt appreciation to the organizing committee, our sponsors, partner institutions, and every contributor who has worked tirelessly to bring this vision to life.
Once again, welcome to ICETMTSHS 2025. Together, let's explore, innovate, and drive change that truly matters.

Thank you, and I wish us all a productive and inspiring conference!
Prof. Dr. Amiya Bhaumik
President,
Lincoln University College

Dato (Amb) Dr. Mohd Yusoff Bin A. Bakar
Vice Chancellor & CEO
Lincoln University College, Malaysia

Esteemed guests, distinguished scholars, respected colleagues, students, and friends,

It is both a privilege and a pleasure to welcome you all to the 2nd International Conference on Emerging Trends in Management, Technology, Social and Health Sciences—ICETMTSHS 2025.

We are gathered here today at a time when the world continues to confront complex challenges—some old, some new—but all demanding creative, collaborative, and compassionate responses. This year's theme, "Exploring Technology for Equitable and Sustainable Health Promotion in line with the UN SDGs," speaks directly to our collective responsibility to shape a future where innovation serves humanity.

As Vice-Chancellor and CEO, I am proud to see this conference evolve into a vibrant, multidisciplinary platform—where academia meets industry, where ideas meet action, and where knowledge meets purpose. Our gathering brings together thought leaders and changemakers from diverse fields, and this cross-pollination of perspectives is not just beneficial—it is essential.
Technology has the power to revolutionize healthcare and social systems, but it must be wielded with care, equity, and a clear moral compass. Our goal over the course of this conference is to examine not only what is possible with technology, but what is right—what is fair, inclusive, and sustainable for all people, regardless of geography, income, or circumstance.

In alignment with the United Nations Sustainable Development Goals, we are reminded that progress is only meaningful when it is shared. As such, I encourage each of you to engage openly, share generously, and challenge ideas constructively. Let us not only talk about change but begin to shape it, here and now.

I wish to extend my heartfelt thanks to the organizing committee, our partners, sponsors, and all who have worked diligently to bring this event to life. And to every participant—thank you for your time, your insight, and your commitment to building a better future.
Welcome once again, and I look forward to the exciting discussions and outcomes that will emerge from ICETMTSHS 2025.

Thank you.

Dato (Amb) Dr. Mohd Yusoff Bin A. Bakar
Vice Chancellor & CEO
Lincoln University College

Prof. Datin Dr. Hafizah Che Hassan

Distinguished guests, esteemed speakers, respected colleagues, and dear participants,

It is with great honor and heartfelt enthusiasm that I welcome you all to the 2nd International Conference on Emerging Trends in Management, Technology, Social and Health Sciences—ICETMTSHS 2025.

As the Chairperson and Convener, I am delighted to see this gathering of brilliant minds from across disciplines and across the globe, brought together by a common purpose—to explore the dynamic role of technology in promoting equitable and sustainable health, in alignment with the United Nations Sustainable Development Goals.

Our theme this year, "Exploring Technology for Equitable and Sustainable Health Promotion," reflects not just a topical issue, but a call to action. In an era marked by rapid technological innovation and widening global health disparities, our challenge is clear: to ensure that innovation serves equity and that sustainability is not a distant goal but a present priority.

This conference is a space for collaboration, reflection, and solution-building. Over the next few days, we will hear from pioneering researchers, policy-makers, technologists, and social scientists—all contributing diverse perspectives to one shared mission: building a healthier, fairer, and more inclusive world.

I wish to express my sincere gratitude to our partners, sponsors, organizing committee members, and volunteers, whose hard work and dedication have made this event possible. And to every participant—whether presenting, attending, or supporting—thank you for being part of this journey.

As we begin this conference, let us engage with open minds, generous hearts, and a shared commitment to knowledge that makes a difference.
Once again, welcome to ICETMTSHS 2025. I wish you all an inspiring and impactful experience.

Thank you.

Prof. Datin Dr. Hafizah Che Hassan
Convener, ICETMTSHS 2025
Deputy Vice-Chancellor (Academic), Lincoln University College

Keynote Speakers

Human Rights Advocacy as a Catalyst to End Human Rights Violations in Mental Health

Anita Abu Bakar

Abstract

Mental health remains one of the most neglected areas in global public health, plagued by stigma, discrimination, and human rights violations. Despite growing recognition, individuals with mental health conditions especially among marginalized groups such as persons with disabilities, women, children, the homeless, and those in institutions and prisons continue to face forced treatment and inhumane conditions. These realities position mental health as not only a medical issue but a pressing human rights concern.

This presentation examines the role of human rights advocacy in transforming mental health systems, particularly in ending human rights violations. Legal reform, community mobilization, and lived experience storytelling are highlighted as powerful tools to challenge systemic abuse, uphold dignity, and promote autonomy. Guided by international frameworks like the Convention on the Rights of Persons with Disabilities (CRPD), successful models such as Italy's Trieste approach are explored, demonstrating the value of community-based, rights-driven care.

Drawing on MIASA's work in Malaysia, this presentation underscores how peer-led advocacy and lived experience can drive inclusive, equitable reform. Key strategies include integration into universal health coverage, legislative change, cross-sector collaboration, and investment in culturally sensitive, recovery-oriented services.

The call to action is clear: dismantle oppressive systems and uphold mental health as a fundamental human right. Advocacy is the pathway to justice, equity, and true reform. "Nothing about us without us" is not just historical and powerful, it is a mandate for inclusion.

Artificial Intelligence (AI) and Generative Artificial Intelligence (GAI) in Medical Image Processing

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Abstract

Artificial Intelligence (AI) plays a pivotal role in contemporary research and technological advancements, particularly in the fields of health and medicine. The integration of technology and AI has not only fostered progress but has also proven instrumental in addressing complex challenges and meeting human needs. This technology enhances recognition and classification activities across various health and image analysis applications. Its impact on refining the precision of computer vision systems is particularly noteworthy, providing valuable insights that contribute to more informed decision-making in the diagnostic process. This keynote presentation aims to share insights from research endeavors that leverage AI in Medical Image Processing. The primary focus will be on enhancing the methodology used in image processing to facilitate Generative AI in making accurate decisions. Practical examples showcasing the application of Generative AI in Medical Image Processing will be explored, offering attendees a deeper understanding of the advancements in utilizing AI for tasks related to medical imaging. As the synergy between AI and medical image-related technologies continues to evolve, this keynote serves as a platform for knowledge exchange and aims to inspire further innovation in the realm of Generative AI and its applications in Medical Image Processing.

Keywords: Image Processing; Medical Images; Artificial Intelligence; Generative Artificial Intelligence; Medical Diagnostic Application.

Hand Exercise Method as A Prevention Effort for Carpal Tunnel Syndrome in Teen Smartphone Users

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Background: CTS (Carpal Tunnel Syndrome) is a medical condition caused by compression of the median nerve in the carpal tunnel due to the degeneration process or excessive use of the hand.
Objective: The aim of this research was to analyze the effect of the hand exercise method on carpal tunnel syndrome pain in using smartphones in teenagers at the Bachelor of Nursing IKes Payung Negeri Pekanbaru.
Methods: The method of this research was quantitative, with a quasi-experimental design with one group pre-test and post-test without a control design approach. The sampling technique was stratified random sampling with a total of 18 respondents using a pain measurement tool, namely the Numerical Rating Scale (NRS). The intervention was carried out for 7 days from 13-19 May 2024.
Results: The results of statistical tests using the Wilcoxon test showed p-value = 0.000 (p-value < 0.05), which means there was a difference before and after the hand exercise method was given.
Conclusion: Thus it can be concluded that there is an influence of hand exercise method on carpal tunnel syndrome pain in the use of smartphones in teenagers at the Bachelor of Nursing IKes Payung Negeri Pekanbaru.

Keywords: Carpal Tunnel Syndrome; Hand Exercise Method; Teen.

HEALTH AND MEDICAL SCIENCES

HS-01

Personalized Healing for Physical and Emotional Well-Being - A Comparative Study of Homeopathic Treatment Versus Integrated Approach of Homeopathy and Yoga in the Treatment of Menstrual Disorders Related to PCOS in Young Females

Dr. Anita Lobo,[1]*, Dr. Jolly D'Mello[1], Dr. Prema D'Cunha[2]

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Abstract

Background: PCOS is a common clinical entity encountered in females of reproductive age group attributed to elevated androgen levels leading to ovarian cysts, irregular menstrual cycles and hirsutism.

Objective: To assess if the interventions can facilitate regular menstrual cycles and reduce hyperandrogenism associated with PCOS.

Materials and Methods: A randomized, non-controlled, clinical trial was conducted at Father Muller Homoeopathic OBG, OPD, Mangaluru in 62 females aged between 18-36 years diagnosed with PCOS according to Rotterdam criteria 31 subjects were treated with homeopathy and compared with 31 subjects treated with homeopathy and yoga therapy. Hyperandrogenism was assessed by serum testosterone level and signs of Hirsutism were evaluated according to the Ferriman-Gallwey scale for Hirsutism before and after treatment.

Results: According to the statistical analysis there was a significant reduction in Ferriman gallwey scores in both the intervention groups ($p<0.001$). It was also observed that both interventional groups are equally effective in regularising the menstrual cycle, Chi-square test P=0.739, NS and also proved to be equally efficient in attaining fertility among infertile females with PCOS Chi-square test P=0.855, NS.

Discussion: In this study, Phosphorous 200 C proved to be an effective constitutional remedy in the treatment of PCOS with homeopathy. Natrum Muriaticum 200 C is the most effective constitutional remedy in the treatment of PCOS along with yoga therapy. It was observed that treatment with constitutional remedy and integrated approach of yoga with constitutional remedy are beneficial in facilitating regular menstrual cycle and reduction in hyperandrogenism associated with fertility rate.

Conclusion: Homoeopathy and yoga were equally effective in treating PCOS. Homeopathic medicines cured the patient with no side effects and regularized menses. Yoga with homeopathy also similarly cured the patients.

Keywords: Constitutional Remedy; Ferriman Gallwey Scale; Homoeopathy; Polycystic Ovarian Syndrome; Yoga.

HS-02

Effectiveness of Innovation of Standard Operating Procedure (SOP) Implementation: Atraumatic Care in Pediatric Nursing, Gown and Stethoscope Character on Anxiety Levels of Preschool Children Due to Hospitality in the Children's Inpatient Room of TGS Hospital

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Abstract

According to data from the World Health Organization (WHO) in 2018, nearly 87% of children worldwide undergo hospital treatment. In the United States, 3%-10% of pediatric inpatients experience anxiety during hospitalization, while in Indonesia, the rate of childhood illness exceeds 45% of the total child population (Ministry of Health of the Republic of Indonesia, 2018). Furthermore, the 2019 National Health Survey (SUSENAS) revealed that 72% of preschool-age children in Indonesia are hospitalized, with 45% experiencing trauma due to hospitalization. This study aims to determine the effectiveness of an innovative approach combining the implementation of Standard Operating Procedures (SOP), Atraumatic Care, and the use of character-themed gowns and stethoscopes in reducing anxiety levels among hospitalized preschool children in the pediatric inpatient ward of South Tangerang City Hospital. This study employed a quasi-experimental method with a quantitative analysis approach. The objective was to assess the effectiveness of the independent variables on the dependent variables, with data collected using questionnaires. The sample consisted of 50 children hospitalized in the pediatric inpatient ward of South Tangerang City Hospital. The results showed a significant reduction in anxiety levels, with 44 respondents (88.0%) transitioning from severe to mild anxiety. Statistical analysis using the T-Test yielded a p-value of 0.000, which is less than 0.05 ($p < 0.05$), indicating that the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted. This suggests that the innovative approach of implementing SOP Atraumatic Care, along with character-themed gowns and stethoscopes, is effective in reducing anxiety levels among hospitalized preschool children.

Keywords: Anxiety; Preschool; Atraumatic Care; Hospitalization.

HS-03

Nursing Care Innovation Design of Si Buah (Hemodialysis Safe Clothes) for Comfort, Safety, Risk of Infection, Patient Privacy and Prevention of Hypothermia to Hemodialysis Patients in SA Hospital Ciputat, South Tangerang

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Abstract

Background: The human body can wash blood automatically carried out by the kidneys, when the kidneys are injured, the body is unable to clean the blood, and can't filter and clean the metabolic waste substances. Diseases resulting from damage to kidney function are chronic renal failure (CKD), if you have stage 5 kidney disease, hemodialysis therapy is required. The innovative design of Si Buah (HD Safe Clothing) is designed using light blue and dark blue because it provides calming benefits, has various sizes, and has zippers and buttons at the blood vessel puncture area to facilitate hemodialysis therapy procedures.

Objective: Si Buah innovation (HD Safe Clothes) is able to increase comfort, reduce the risk of infection, maintain patient privacy and prevent hypothermia in hemodialysis patients at SA Ciputat South Tangerang Hospital.

Method: The research used was quantitative and used a one-group pretest, experimental posttest method with a sample of 40 respondents.

Results: The results obtained are Si Buah (HD Safe Clothes) innovation, in the hemodialysis room at SA Ciputat South Tangerang Hospital effectively increases comfort, safety, reduces the risk of infection, and maintains patient privacy and prevents hypothermia in hemodialysis patients at SA Ciputat South Tangerang Hospital. Based on the results of the statistical test using the Wilcoxon test, the result was the effectiveness of Si Buah Fashion Innovation, with respondents before and after obtaining a p-value of 0,000 when compared with the significant value the calculated value is greater than the significance value $\alpha < 0,05$.

Conclusion: Si Buah (HD Safe Clothes) is effective for hemodialysis patients at SA Ciputat South Tangerang Hospital.

Keywords: Innovative Design; HD Safe Clothes; Comfort; Safety; Infection Risk; Privacy; Hypothermia; Prevention.

HS-04

Factors Related to Stress Level of HIV/AIDS Survival in Tangerang City Hospital

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Abstract

Stress is a condition in individuals that is unpleasant which from it can cause physical and psychological stress to the individual. The purpose of this study was to identify factors related to stress levels in HIV/AIDS survivors at Tangerang City Hospital. This research method is quantitative research with analytical methods with a research design using cross-sectional. The sample of this study was 105 PLHIV at Tangerang City Hospital conducted using the Accidental Sampling technique. Based on the results of research using the Chi-Square test, it was found that there was a relationship between economic status and stress levels in HIV/AIDS survivors at Tangerang City Hospital (p-value = 0.00 < 0.05) there was a relationship between the openness of partner/family status with the level of stress in HIV/AIDS survivors at Tangerang City Hospital (p-value = 0.00 < 0.05) there is a relationship between social/family support and stress levels in HIV/AIDS survivors at Tangerang City Hospital (p-value = 0.00 < 0.05) There is no relationship between the history of ARV side effects and the level of stress in HIV/AIDS survivors at Tangerang City Hospital (p-value = 0.17>0.05). Advice for HIV/AIDS survivors is advised by PLHIV to be open about their status to their partners/families, in order to get support and motivation that can reduce the level of stress on the disease experienced.

Keywords: Factors Related; Stress Level; HIV/AIDS Survival.

HS-05

Effectiveness of Non-Pharmacological Nursing Implementation of Stress Ball Distraction Therapy to Reduce Arteriovenous Fistula (AVF) Insertion Pain in Hemodialysis Patients at RSX Jakarta Indonesia

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Abstract

Introduction: According to estimates, 30% of the world's population suffers from pain, which contributes to a notable increase in health care services. In light of this, issues related to effective pain management have emerged as significant factors in recent years, which have impacted the development of several theoretical models. Distraction is intended to stimulate the pain's concentration and can reduce its own intensity, anxiety, and fear.

Objective: The purpose of this study was to analyze the effectiveness of non-pharmacological stress ball therapy in reducing pain in hemodialysis patients at RSX Jakarta, Indonesia.

Method: The method in this study utilized a quantitative approach with a pre-experimental design study, namely a design that includes only one group that is given pre and post-implementation of Stress Ball Distraction Therapy, with a total sample size of 71 respondents.

Results: bivariate analysis of the Pre and Post Intervention values of stress ball distraction therapy for respondents who underwent Arteriovenous Fistula (AVF) puncture with a p-value of 0.000 <0.005, it can be concluded that there is a level of effectiveness of the results of the implementation of stress ball distraction therapy intervention on respondents who underwent Arteriovenous Fistula (AVF) puncture during hemodialysis at RSX Jakarta, which obtained a mean difference in the pain scale of 1.30.

Conclusion: the level of effectiveness of the results of the implementation of stress ball distraction therapy intervention on respondents who underwent Arteriovenous Fistula (AVF) puncture during hemodialysis at RSX Jakarta. Suggestion: Researchers suggest that patients undergoing hemodialysis with Arteriovenous Fistula (AVF) Puncture should undergo non-pharmacological nursing intervention in the form of stress ball distraction therapy to reduce their pain levels.

Keywords: Pain; Distraction Therapy; Stress Ball; Arteriovenous Fistula Puncture.

HS-06

Evaluation of the Use of Pulmonary Anti-Tuberculosis Drugs In HIV/AIDS Patients at the Outpatient Installation at the Tangerang South City Hospital

Nurwulan Adi Ismaya*, Riris Andriati, Siti Novy Romlah, Fenita Purnama Sari Indah, Gina Aulia, Suny Koswara Rahajeng, Agung Dewantoro, Gita Ayuningtyas

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Abstract

Background: Tuberculosis is an infectious disease caused by Mycobacterium tuberculosis. Tuberculosis is a serious disease that must be treated immediately because this disease is very risky for people with HIV. HIV infection is the strongest factor in the occurrence of tuberculosis and the most common cause of death in people with HIV.

Objective: To find out the results of evaluating the use of pulmonary anti-tuberculosis drugs in /AIDS patients at the Outpatient Installation of the South Tangerang City General Hospital in 2022.

Research design: Using descriptive research methods. The descriptive research method was carried out using a retrospective approach. Sampling was carried out using a total sampling technique with a total of 86 patients.

Results: The study showed that most AIDS patients diagnosed with pulmonary TB based on age were in early adulthood (26-35 years) as many as 35 patients (40.70%), based on gender most were male as many as 70 patients (81, 40%), based on the highest treatment category, namely category I as many as 83 patients (96.51%). The percentage of drug rationale includes 100% right diagnosis, 100% right indication, 100% right drug selection, 98.84% right dose, 100% right way of administration, 5.98% right treatment duration, 100% right patient and potential for drug interactions 56.98%. It can be concluded that the evaluation of the use of anti-tuberculosis drugs in AIDS patients at the Outpatient Installation of the South Tangerang City General Hospital is not rational.

Keywords: Pulmonary Anti-Tuberculosis Drugs; In HIV-AIDS Patients; Outpatient Installation.

HS-07

Analysis of the Level of Patient Knowledge, Dietary Adherence, Physical Activity and Medication Adherence to Blood Sugar Levels of Diabetic Mellitus Patients at the Public Health Center in Banten Province

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Abstract

Background: Diabetes is still a major health problem in the world, including Indonesia and its cases continue to occur and increase. Diabetes mellitus is the third cause of death in Indonesia after stroke and coronary heart disease. The rapid increase in the prevalence of diabetes mellitus has an impact on treatment behavior. The management of diabetes mellitus has four main pillars, namely education (counseling), diet, exercise and treatment.

Objective: The purpose of this study is to determine the relationship between knowledge level, dietary adherence, physical activity and medication adherence to blood sugar levels of diabetic mellitus patients at the Pamulang Health Center.

Research design: The research method uses a prospective analytical study design or a cross-sectional approach with purposive sampling techniques.

Results: The sample in this study amounted to 160 respondents. The results of the chi-square test of the relationship between the level of knowledge of diabetic mellitus patients and blood sugar levels at the Pamulang Health Center obtained a p-value of 0.00, dietary adherence p-value 0.00, physical activity p-value 0.00, and medication adherence p-value 0.00.

Conclusion: There is a relationship between the level of knowledge, dietary adherence, physical activity and medication adherence to the blood sugar level of diabetic mellitus patients at the Pamulang Health Center.

Keywords: Diabetes Mellitus; Knowledge Level; Dietary Adherence; Physical Activity; Medication Adherence.

HS-08

The Future Revolution of Dadiah and Metformin to Repairing Gut Histopathology by Promoting IgA Expression of Diabetic Rats

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Abstract

Diabetic nephropathy (DN) is often associated with problems in the digestive system. Many studies have shown that probiotics contained in Dadiah play a role in improving gut health. In addition, probiotics offer therapeutic benefits when combined with metformin. There doesn't seem to be a study that looks at how Dadiah and metformin work together to improve the histopathology of the gut in a rat model of diabetes mellitus by raising the expression of immunoglobulin A (IgA). This study aimed to evaluate the synergistic effect between the combination of Dadiah and metformin in improving gut histopathology in a rat model of diabetes mellitus through increased expression of immunoglobulin A (IgA). This experimental study used adult Wistar Rattus norvegicus rats as the animal model. We randomly divided 35 rats into seven treatment groups: two control groups and five treatment groups, each given a different combination of treatments. The Barthel-Manja score was used to determine what was wrong with five copies of each sample, and immunohistochemistry was used to determine how much IgA was in the gut tissue.

Taking Dadiah and metformin together resulted in more IgA expression and significantly better intestinal histopathology scores compared to taking them separately. Combining Dadiah and metformin has the potential to usher in a new era in diabetes management. This is because both work together to improve the integrity of the intestinal epithelium by enhancing the mucosal immune response. This approach not only contributes to blood glucose control but also supports intestinal immune function, highlighting the potential of dietary intervention in comprehensive diabetes management.

Keywords: Probiotic; Dadiah; Metformin; Histopathology; IgA Expression.

HS-09

The Effect of Aloin on Blood Glucose Levels and Insulin Metabolism in Streptozotocin-Induced Diabetic Male Mice

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Abstract

Background: Diabetes mellitus is characterized by impaired insulin secretion and metabolism. Aloin, a bioactive compound derived from Aloe vera, has shown potential hypoglycemic properties and the ability to modulate insulin metabolism. This study investigates the therapeutic efficacy of aloin in a streptozotocin (STZ)-induced diabetic murine model.

Objective: To determine the effect of aloin in reducing blood glucose and promoting insulin metabolism among diabetic male mice (Mus musculus).

Methods: An experimental pre-posttest control group design was used. Twenty-four albino male mice (2–3 months, 20–40 g) from the Andalas University Pharmacological Laboratory were randomly divided into four groups: a negative control (K-), a positive control (K+) treated with metformin, and two treatment groups treated with aloin at 0.5 mg/kg (P1) and 1 mg/kg (P2). Diabetes was induced by STZ, and blood glucose levels were measured pre-and post-treatment. Non-parametric statistical tests (Wilcoxon post hoc test and Friedman test) were applied due to the non-normal distribution of data.

Results: The diabetic group without treatment had the highest baseline blood glucose (K-: 273.5 mg/dL). Following intervention, significant reductions in glucose levels were observed in all treatment groups ($p < 0.05$). The metformin group (K+) and the two aloin groups (P1 and P2) had comparable efficacy ($p = 0.028$), with the 1 mg/kg dose of aloin (P2) having the largest reduction (mean reduction: 1 mg/dL).

Conclusion: Aloin at doses of 0.5 mg/kg and 1 mg/kg effectively inhibits hyperglycemia in STZ-induced diabetic mice with an efficacy comparable to that of metformin. These findings suggest aloin as a potential alternative drug for the treatment of diabetes. Its pathways and long-term safety need to be explored further.

Keywords: Aloin; Blood Glucose; Insulin Metabolism; Streptozotocin; Diabetes; Hypoglycemic Agent.

HS-10

Nutraceutical Effects of Fermented Goat Milk with *Lactiplantibacillus plantarum* Starter on Pregnant Women in the Third Trimester

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Abstract

Background: Goat milk is one of the foods that contain animal protein, the use of Lactiplantibacillus plantarum starter as a starter in making fermented goat milk adds to the functionality of goat milk so that it can be nutraceutical because it contains probiotics. Generally, pregnant women in the third-trimester experience symptoms of Gestational diabetes as well as anxiety and stress, this is certainly related to hormonal balance and balance of digestive microflora.

Objective: The application of fermented goat milk nutraceutical products to pregnant women in the third trimester is expected to be able to maintain blood sugar and hemoglobin levels until the time of delivery.

Methods: This study observed 15 pregnant women in the third trimester who were given fermented goat milk as a nutraceutical product. Observations were made before consuming fermented goat milk and before HPL, pregnant women consumed fermented goat milk in the third trimester until the delivery period. This study used a quantitative descriptive method by observing blood sugar and hemoglobin levels.

Results: Demographic data of pregnant women observed at the Anak Air Health Center, Padang City based on age groups ≤25 years as much as 40%, 25-35 years as much as 47% and ≥35 years as much as 13%. Blood sugar levels before consuming fermented goat milk ranged from 70-143, Hb ranged from 9.5 - 14.3 and blood pressure ranged from 87/45 - 139/89. After consuming fermented goat milk ± 12 weeks until the delivery period, blood sugar levels were obtained in the range of 80 - 120 and Hb 12-15.

Conclusion: Consumption of fermented goat milk with Lactiplantibacillus plantarum starter in pregnant women in the third trimester can suppress the occurrence of gestational diabetes, increase Hb levels and maintain blood pressure balance during pregnancy. This is due to the nutritional composition of fermented goat milk and probiotic content that can improve dysbiosis during pregnancy so that the efficiency of maternal and child nutrition is absorbed optimally.

Keywords: Pregnant Women; Fermented Goat Milk; Gestational Diabetes; Lactiplantibacillus Plantarum.

HS-11

Aloin, A New Breakthrough in Dyslipidemia Therapy: Dyslipidemia Mice as a Model of Aging

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Abstract

Background: Dyslipidemia is a condition where lipid metabolism is disrupted due to the combined action of genetic and environmental factors caused by abnormalities in lipid metabolism or plasma lipid transport which is characterized by an increase or decrease in the lipid fraction in the plasma. Reducing Low-Density Lipoprotein (LDL) cholesterol levels in dyslipidemia patients can be done by consuming natural medicinal ingredients that can be used to lower cholesterol, namely substances contained in Aloe vera, namely aloin.
Objective: to determine the effect of administering aloin on reducing LDL cholesterol levels in male mice (Mus musculus) with obese dyslipidemia.
Methods: This research was True Experimental using a Pretest-Posttest Control Group Design by taking measurements or observations before and after the treatment was given for 2 weeks. The accessible population in the study was obese dyslipidemic male mice (Mus musculus) aged 18 weeks with a body weight of 30-40 grams, consisting of 32 samples using a simple random sampling technique. Mice were exposed to ultraviolet C light for 2 weeks and fed a high-fat diet to obtain a dyslipidemia aging model. Data analysis uses General Linear Model.
Results: The mean LDL level before administering Aloin in the Treatment group was 46.15+9.714. The mean LDL level after administering Aloin in the Treatment group was 28.87+11.077. The mean Pretest LDL level in the Control group was 47.47+9.086. The mean post-test LDL level in the Control group was 27.11+9,500. There is a significant effect of giving Aloin on reducing LDL levels in male mice (Mus musculus) with dyslipidemia (p=0.000).
Conclusion: There was a decrease in LDL levels after administering aloin extract to dyslipidemic male mice.

Keywords: Dyslipidemia; Low-Density Lipoprotein; Aloe vera; Aloin; Obesity.

HS-12

Typhoid Fever Diagnosis: Using Neutrophil-lymphocyte Ratio (NLR) as a Practical and Cost-Effective Marker of Inflammation

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Abstract

Background: Typhoid fever is an acute or chronic systemic infectious disease caused by the gram-negative bacteria Salmonella typhi. WHO stated that the incidence of typhoid fever reached 21 million cases with a mortality rate of 161,000 in Southeast Asia and South Asia. Cases of typhoid fever can be fatal due to low awareness and inadequate treatment, so adequate examination or diagnostic support is needed. Typhoid fever has typical hematological abnormalities, namely anemia, leukopenia, eosinophilia, thrombocytopenia and subclinical disseminated intravascular coagulation. Typhoid fever can affect the hematopoietic system including neutrophils and lymphocytes. Neutropenia is a clinical picture that is often found in cases of typhoid fever. This hematological picture can be used as a tool to aid diagnosis and management of the patient's condition appropriately.

Objective: This study aims to determine the mean neutrophils count, lymphocyte count and NLR in typhoid fever patients at the Siti Rahmah Islamic Hospital, Padang in 2023.

Result: The study involved 29 typhoid fever patients with 100% positive TF tubex examination, 55.2% of patients had a score >6, which is a strong indication of typhoid infection. The majority were women (65.5%) and the most age was 0-5 years (44.8%). Most patients experienced neutrophilia of as much as 89.7% with a mean neutrophil count of 81.59% and lymphopenia of as much as 10.3%. The average NLR value was 6.32 indicating inflammation.

Conclusion: NLR shows an increase in neutrophil ratio and a decrease in lymphocytes in typhoid fever patients. This study underlines the importance of NLR examination as a support for the diagnosis and clinical management of typhoid fever.

Keywords: Typhoid Fever; Neutrophils Count; Lymphocytes Count; Neutrophil-Lymphocyte Ratio.

HS-13

Exploring the Efficacy of Homeopathic Treatment in Immunologic Disorders: A Case Series Analysis

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Abstract

Homeopathy is increasingly recognized as a complementary approach to managing autoimmune disorders, yet empirical validation remains limited. This case series evaluates the efficacy of homeopathic treatment in conditions such as rheumatoid arthritis (RA), dermatitis, and Graves' disease. While Traditional and Complementary Medicine (T&CM) is gaining acceptance in Malaysia, scientific investigations into its role in autoimmune disease management remain scarce.

This study employs a retrospective case series analysis, assessing treatment outcomes through qualitative and quantitative measures, including clinical symptoms and laboratory markers such as RA factor and Antinuclear Antigen (ANA) levels. Five cases demonstrated significant symptom relief, immune modulation, and improved well-being. RA patients exhibited reduced joint pain and improved mobility, while mixed connective tissue disease (MCTD) cases showed ANA normalization and skin recovery. A patient with Graves' disease experienced thyroid antibody reduction, improved eye symptoms, and emotional stability. Treatment durations ranged from 24 to 60 months, with chronic cases requiring extended therapy. Patterns observed included holistic symptom resolution and enhanced quality of life.

Despite promising results, empirical validation faces challenges, including small sample sizes, lack of control groups, and subjective outcome measures. The absence of placebo-controlled trials limits the ability to attribute improvements solely to homeopathy. Patient adherence and external influencing factors, such as concurrent medical treatments and lifestyle modifications, further complicate assessment. Future research should focus on larger-scale randomized controlled trials (RCTs), incorporation of objective biomarkers, and interdisciplinary collaboration between homeopaths and conventional medical professionals to enhance evidence-based integration.

This study underscores homeopathy's potential as a holistic, patient-centered approach to autoimmune disease management. While findings suggest beneficial effects in symptom relief and immune regulation, further rigorous trials are necessary to establish long-term efficacy and facilitate integration into mainstream healthcare. Strengthening research methodologies will be essential in advancing homeopathy's role within evidence-based medicine.

Keywords: Homeopathy; Autoimmune Disorders; Complementary Medicine; Immunomodulation; Integrative Healthcare.

HS-14

Development of ANNISA (Andra's Nursing Informatic System Application) in Nursing Documentation Practice; Research and Development Models

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Abstract

Background: The development of nursing information systems is oriented toward improving the quality of nursing care documentation. The nursing information system in the health center service setting developed is ANNISA

Objective: The ANNISA development prototype refers to the terminology NANDA, NIC and NOC

Methods: This was a qualitative and quantitative study with a development approach. The participants and respondents in this study were 48 nurses in Puskemas of Pekanbaru City. The procedure for carrying out the research consists of analyzing the needs of the ANNISA model, designing the application of the ANNISA model, implementing the ANNISA model, testing the feasibility of the ANNISA model and testing the ANNISA model. The feasibility test of the ANNISA model was carried out by testing the expertise of 3 experts in accordance with the scientific field of nursing and information systems and then analyzed using the Intereter Reliability test (Kappa Test). The ANNISA Model Trial was carried out using a Pair T-Test analysis with indicators using the value =0.05

Results: The results of the study show that the ANNISA development carried out obtained a feasibility test showing a significance level of 85% so the ANNISA application from the expert test carried out was categorized as very feasible. Based on the results of the ANNISA model trial in a limited group, it was found that the ANNISA application could significantly increase knowledge, mastery of technology, reduce workload and improve the quality and completeness of nursing documentation (P Value < = 0.05).

Conclusion: ANNISA model trial in a limited group, it was found that the ANNISA application could significantly increase knowledge, mastery of technology, reduce workload and improve the quality and completeness of nursing documentation.

Keywords: Annisa; Documentation; Informatic; Nursing.

HS-15

Smart Box Media in Improving Dental and Oral Health Knowledge in Kindergarten

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Abstract

Background: Dental and oral health an important role in the growth and development of kindergarten children. Dental disorders will disrupt the absorption of nutrients entering the body. Smart box media is needed as an alternative approach to improve dental and oral health knowledge and functions as an educational tool integrated with games.

Objective: This study aims to assess the effectiveness of Smart Box Media in introducing the concept of dental and oral health to kindergarten children

Method: This study uses a quantitative research type with a quasi-experimental design in one group (pretest-posttest). The subjects of the study were kindergarten children with a population of 42 people. The variables studied were smart box media and knowledge of dental and oral health. Smart box media was tested by media and material experts. Dental and oral health knowledge was measured by a list of questions. The results of the study were tested with the Wilcoxon Sign Rank Test.

Results: This study examined the effectiveness of the average score of dental and oral health knowledge before the intervention, which was 55.95, while after the intervention increased to 89.29. The Wilcoxon Sign Rank Test analysis showed a significant difference (p-value = 0.000 <0.05) between knowledge before and after receiving intervention with Smart Box media.

Conclusion: Smart Box media is effective in increasing kindergarten children's knowledge of dental and oral health

Keywords: Dental and Oral Health; Knowledge; Smart Box.

HS-16

Hypertension Care Profile in Public Health Centers: A Retrospective Descriptive Study

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Abstract

Background: Hypertension is a non-communicable disease which is a major risk factor for heart disease, stroke, and kidney failure. The prevalence of hypertension in Indonesia tends to increase every year. This indicates that hypertension is a major health problem in the community that needs to be treated seriously at the primary care level, such as at public health centers. As the frontline of basic health services, public health centers should be able to provide an effective and sustainable service to reduce the rate of complications of hypertensive patients. Nevertheless, in reality, several challenges are faced in the delivery of hypertension services in public health centers. These include low patient compliance, limited health workers, and not optimal implementation of chronic disease management programs. Hence, it is essential to evaluate the services provided to determine the implementation in accordance with the standards and needs of the community.

Objective: This study aimed to describe the profile of hypertension care at public health centers through a retrospective descriptive study.

Methods: This study uses a quantitative descriptive method with a retrospective approach. The research was conducted at Simpang Tiga Health Center Pekanbaru during January-February 2025. The sample of this study was 304 respondents who were taken using secondary data from the daily reports of health center services. The instrument used was a checklist sheet that contained data on age, gender, education, occupation, the frequency of blood pressure control, the type of education offered, and referral. Data were analyzed using descriptive quantitative analysis to analyze the frequency and percentage distribution of each variable.

Results: The results showed that most of the respondents were in the early elderly age range of 46-55 years (73.4%), female (65.5%), and worked as housewives (65.5%). The majority of respondents had a high school education level (88.5%) and had health insurance through BPJS Health (80.3%). The results showed that all respondents controlled their blood pressure every month, whereas most of them controlled twice a month (78.3%). All respondents also received education on healthy lifestyles with an emphasis on adherence to medication (64.1%). Based on the referral aspect, most respondents were referred to government hospitals (57.9%).

Conclusion: This study revealed that hypertension care at the Puskesmas have been well implemented, marked by a high level of compliance with blood pressure control and the delivery of healthy lifestyle education to all respondents.

Keywords: Hypertension; Care; Public Health Centre; Retrospective Study.

HS-17

Analysis of Patient Satisfaction Levels in Hospitals

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Abstract

Background: Hospitals as institutions that move in the field of health services and institutions that function socially can be seen from the results of the evaluation of patient satisfaction levels. One of the factors that plays an important role in determining patient satisfaction is not only determined by the accuracy of service but also how nurses and health workers are able to foster communication relationships with patients in providing nursing services for the success and recovery of patients.

Objective: This study aims to determine the Patient Satisfaction Level at Pekanbaru City Hospitals, Riau Province.

Methods: The design of this study uses quantitative using *a cross-sectional* approach. The sample in this study amounted to 91 people. The sampling technique uses *non-probability* sampling with the purposive sampling method. Data were analyzed using univariate tests.

Results: The results of the study found that the test score of the patient satisfaction level was a minimum of 72 and a maximum of 98, and the mean value was 86.74.

Conclusion: Patient satisfaction is an important indicator in assessing the quality of health services. This research is expected to provide information for hospitals in the city of Pekanbaru, Riau in order to maintain patient satisfaction levels.

Keywords: Patient Satisfaction; Healthcare; Hospital.

HS-18

Compliance with Infection Prevention and Control Practice among Clinical Nursing Students in Public Hospitals in Riau Province

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Abstract

Background: Infection Prevention and Control (IPC) is a crucial aspect of nursing practice, particularly in hospital settings. Adherence to IPC protocols not only protects patients but also safeguards healthcare workers in general and nursing students in particular from the risk of nosocomial infections. This study aims to assess the extent to which nursing students comply with IPC protocols during clinical practice in a provincial government hospital in Riau.

Objective: The objective of this study is to evaluate the compliance of nursing students undertaking clinical practice at a provincial government hospital in Riau with Infection Prevention and Control (IPC) protocols.

Methods: This is a quantitative study with a descriptive design, involving 197 students from six nursing institutions in Riau Province who voluntarily participated through accidental sampling. Data were collected using a questionnaire on student compliance with IPC during clinical practice. The data were entered into a computer and analyzed using SPSS. Descriptive statistical analysis was conducted to process the obtained data.

Results: The compliance level of nursing students during clinical practice at government hospitals in Riau Province was 36.5%. The highest compliance was observed in the use of Personal Protective Equipment, with a mean score of 5.26 ± SD 1.05 and a range between 2 and 6. In contrast, the lowest compliance was found in the Waste Disposal aspect, with a mean score of 0.66 ± SD 0.47 and a range between 0 and 1.

Conclusion: This study highlights the need to improve education and supervision in IPC practices to enhance patient and healthcare worker safety.

Keywords: Infection Prevention and Control; Nursing Students; Standard Precautions.

HS-19

The Effectiveness of Audiovisual Media for Facilitators in Increasing Community Participation in the Waste Bank

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Abstract

Background: The waste bank is a place used to accommodate waste that has been sorted. Waste management problems in urban areas require public awareness to participate. The community can participate in managing waste, especially in their respective neighborhoods.

Objective: The purpose of this study was to determine the effectiveness of audiovisual media for waste bank facilitators in increasing community participation in the Kirana Gajah Mada waste bank in Pekanbaru City.

Methods: This research was conducted using a descriptive qualitative method. This research was conducted at Kirana Gajah Mada waste bank in Pekanbaru City in June-July 2024. The sample of this study was 72 respondents, namely housewives in RW 11 Simpang Tiga Village, Pekanbaru City. The instrument used is audiovisual media containing socialization related to waste banks. Effectiveness is measured based on the increase in the number of waste bank customers after socialization by waste bank facilitators using audiovisual media.

Results: The results of this study indicate an increase in community participation with the use of audiovisual media in the socialization of waste banks by facilitators in the Kirana Gajah Mada waste bank in Pekanbaru City. Audiovisual media used by waste bank facilitators is effective in increasing the number of people participating in becoming waste bank customers, effective in increasing the amount of waste saved by waste bank customers and effective in increasing the desire of the community to continue participating as waste bank customers.

Conclusion: Waste bank socialization activities by waste bank facilitators need to use audiovisual media assistance to increase active community participation in the waste bank waste management process.

Keywords: Audiovisual Media; Assistance Personnel; Community Participation; Waste Bank.

HS-20

Correlation Between Cognitive Function and Serum Levels of Brain-Derived Neurotrophic Factor In Schizophrenia

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Abstract

Background: Schizophrenia is a chronic psychiatric disorder characterized by significant cognitive impairments, including deficits in attention, processing speed, and executive function. Cognitive dysfunction has been linked to poor functional outcomes and occurs in the majority of patients, impairing their ability to establish social interactions or solve problems. Cognitive dysfunction in schizophrenia has been extensively studied and documented. Brain-derived neurotrophic Factor (BDNF) plays a key role in neuroplasticity and cognitive processes.

Objective: This research aims to determine the correlation between serum BDNF levels and cognitive function using the Trail Making Test.

Methods: A cross-sectional study was conducted on 50 schizophrenia patients at Reksodiwiro Army Hospital Padang. Participants underwent cognitive function evaluation using the Trail Making Test (TMT), consisting of TM A and TMT B. Peripheral blood will be drawn from each participant and collected into two types of tubes: EDTA tubes (for plasma) and gel separator tubes (for serum). Serum BDNF levels were measured using the ELISA (Enzyme-Linked Immunosorbent Assay) method. The statistical test used is Spearman's correlation.

Results: A significant proportion of participants demonstrated cognitive impairments (50% in TMT-A and 60% in TMT-B), and no statistically significant correlation was found between serum BDNF levels and TMT scores (TMT-A: $r = -0.073$, $p = 0.612$; TMT-B: $r = -0.263$, $p = 0.065$).

Conclusion: This research concluded that there was no statistically significant correlation between BDNF levels and TMT A and B. The findings suggest that serum BDNF may not directly correlate with cognitive impairments in schizophrenia, specifically executive function and attention, as assessed by the TMT.

Keywords: Schizophrenia; BDNF; Cognitive Deficit.

HS-21

Evaluation of the Use of Antidiabetic Drugs in Patients with Diabetes Mellitus and Hypertension at UIN Syarif Hidayatullah Hospital

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Abstract

Background: Diabetes mellitus (DM) is a degenerative disease characterized by an increase in blood glucose levels above the normal threshold with clinical manifestations in the form of polyphagia, polydipsia and polyuria. Diabetes mellitus (DM) is currently one of the global health threats. Objective: To determine the Evaluation of Antidiabetic Drug Use in Diabetes Patients with Hypertension Complications at Syarif Hidayatullah Hospital in 2022. Research Methods: using descriptive retrospective. Data collection using the total sampling technique method with a sample size of 91 patients in 2022 at Syarif Hidayatullah Hospital. Research Results: Based on the results of the study, it shows that the age is 46-65 years old as many as 64 patients (70%). Patient characteristics based on gender are mostly female with 46 patients (51%). The use of the most drugs is metformin group with biguanid group as many as 12 patients (13%). The percentage of rationality includes the right diagnosis (100%), the right indication (100%), the right drug (100%), the right dose (95%), the right method of administration (89%), the right time interval for administration (95%), the right duration of administration (95%), the right patient (100%). Potential drug interactions were 31 patients (34%) who had potential drug interactions. Conclusion: Based on the results of this study, it can be concluded that the evaluation of drug use at Syarif Hidayatullah Hospital is rational.

Keywords: Diabetes Mellitus; Drug Use Evaluation; Interaction.

HS-22

Cost-Effectiveness Analysis of Oral Antidiabetic Therapy for Patient Treatment of Type II Diabetes Mellitus in South Tangerang City Hospital

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Abstract

Diabetes mellitus (DM) is a chronic disease with blood glucose levels that exceed normal limits in the body. The length of therapy carried out causes the amount of medical expenses incurred. The amount of medical expenses in DM patients is important to know and analyze the cost-effectiveness of drug use. The purpose of this study was to analyze the effectiveness of therapy and the cost-effectiveness of therapy for patients with type 2 diabetes mellitus between the use of several alternative oral antidiabetics in pharmacoeconomics with the Cost-Effectiveness Analysis approach in outpatients at the South Tangerang City Hospital. This research method is a descriptive study with retrospective data in the form of patient medical record documents and medical cost documents for outpatients with type 2 diabetes mellitus at South Tangerang City Hospital in the January- December 2023 period. ACER analysis uses pre-post GDP laboratory data and antidiabetic oral drug prices. Based on the results of this study, 63 patients with type 2 DM who met the inclusion and exclusion criteria were obtained. The most commonly used monotherapy oral antidiabetic was Biguanide (11,1%), while the combination oral antidiabetic was a combination of Sulfonylurea and Thiazolidinedion (17,5%). The most cost-effective monotherapy oral antidiabetic therapy is Biguanide which is carried out routine treatment for 3 months with 86% effectiveness, ACER value of Rp 46.679 and ICER of Rp 288.079. The most cost-effective combined oral antidiabetic therapy group is Sulfonilurea and Biguanide which is carried out routine treatment 3 months with 73% effectiveness, ACER value of Rp 139.064 and ICER of Rp 273.756. Based on ACER and ICER calculations, the most cost-effective oral antidiabetic monotherapy is the Biguanide group. Meanwhile, the most cost-effective combined oral antidiabetic is the combination of Sulfonylurea and Biguanide.

Keywords: Diabetes mellitus; CEA; ACER; ICER; Patient.

HS-23

Relationship Between Age and Sex with the Incidence Rate of Drug Side Effects in Adult Patients with ISPA at the Ciputat Health Center

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Abstract

Acute Respiratory Tract Infection (ARI) is a disease transmitted by a virus. The disease can also be transmitted through droplets and contact with contaminated hands or other objects. Nearly 4 million people die from Acute Respiratory Infections every year. The mortality rate is very high in infants, children, and the elderly, especially in low- and middle-income countries. The purpose of this study is to analyze the relationship between age and gender with the incidence rate of drug side effects in adult patients with ISPA at the Ciputat Health Center in 2024. The research method is a prospective method that is cross-sectional with non-random sampling techniques. This research was conducted in April-May 2024 at the Ciputat Health Center using a questionnaire as a research instrument. The number of respondents in this study was 94 respondents. The results of this study showed that of the 94 patients who experienced side effects of drugs, almost half of them were categorized (Probable), as many as 43 respondents were most likely to have side effects from suspected drugs (45.7%) in the form of nausea and drowsiness from Acetylsisteine 500 mg, Guaifenesin 100 mg, CTM 4 mg and loratadine 10 mg. The chi-square test of the relationship between age and the incidence of drug side effects in adult patients with ISPA obtained a p-value of <0.034 and there was no relationship between sex and the incidence of drug side effects in adult patients with ISPA obtained a p-value of >0.450. It was concluded that there was a relationship between age and the incidence of drug side effects in adult patients with ARI, but there was no relationship between sex in adult patients with ARI.

Keywords: ISPA; Age; Gender; Drug Side Effects.

HS-24

The Role of Nursing in Community Education: Effectiveness of Animated Videos And E-Booklets in Enhancing Public Knowledge on Early Stroke Management

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Abstract

Stroke is the leading cause of disability worldwide and the second leading cause of death. The Indonesian health survey stated that the prevalence of stroke in Indonesia reached 8.3 per 1,000 population. The Tangerang Regency Health Office in 2023 showed that stroke cases were the third highest of the types of PTM. 95% of stroke diagnoses begin outside the hospital and the problems that arise in Indonesia are the lack of detection of stroke risk factors and the lack of awareness of the emergence of stroke symptoms. The purpose of this study was to determine the effectiveness of health education for early detection of stroke through audiovisuals and e-books. This is a quantitative study with a pre-experimental type in the form of a two-group pretest-posttest design. The population of this study was the Gempol Sari village community and a sample of 100 respondents was obtained. Based on the results of the Wilcoxon audiovisual statistical test showing negative ranks values of 0,00 and positive ranks of 25.00 and obtained a significance value of p-value 0.000 <0.05 it can be concluded that there is effectiveness of health education through audiovisual. The results of the Wilcoxon e-book statistical test show negative rank values from mean ranks 0,,00 and positive ranks 25,50, obtained a significance value of p-value 0.000 <0.05 which can be concluded that there is effectiveness of health education through e-books. The results of the Mann-Whitney statistical test show that the pre-test value of the audiovisual mean ranks 58.67 and e-book 42.33, obtained a significance value of 0.003 <0.05 then it can be concluded that there is a significant difference between the audiovisual pre-test and e-book. The suggestions from the results of this study are expected to be a reference for improving health education, especially early detection of stroke, increasing insight, and can be used as a reference for further research.

Keywords: Health Education; Audiovisual; E-book; Knowledge; Early Detection; Stroke.

HS-25

Implementation of Patient Safety Culture at Murni Teguh Hospital Using the Hospital Survey on Patient Safety Culture (SOPS) Version 2.0

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Abstract

Patient safety culture is a fundamental aspect of healthcare services, aimed at minimizing the risk of preventable harm. This study aims to analyze the patient safety culture at Murni Teguh Memorial Hospital (MTMH) using the SOPS Hospital Survey 2.0 instrument. A descriptive-analytical method with a cross-sectional approach was employed, involving 726 respondents from various professional backgrounds within the hospital. The results showed an overall composite score of 66%, which was significantly lower than the national benchmark of 70%. The Score for Organizational Learning (score: 90) and Teamwork (score: 83) stood out, reflecting a strong commitment to organizational learning and interprofessional collaboration. However, a critical weakness was identified in the Reporting Patient Safety Events dimension (score: 22), where only 15% of staff reported near-miss incidents, far below the national average of 64%. In addition, 55% of staff worked more than 40 hours per week, and 61% stated that their units were too busy to prioritize patient safety. Another challenge was noted in vertical communication, with only 58% of staff believing that their supervisors respond effectively to safety-related feedback. Based on these findings, the study recommends several improvement strategies, including: (1) implementing an anonymous reporting system to enhance transparency, (2) adjusting nurse-to-patient ratios in accordance with Ministry of Health standards, and (3) strengthening leadership capacity through safety leadership training.

Keywords: Implementation; Patient Safety; Culture; Hospital; SOPS.

HS-26

Evaluating the Relationship Between Histopathology and Radiotherapy Response in Breast Cancer Patients

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Abstract

Background: Breast cancer is the most prevalent and commonly diagnosed cancer among women worldwide. In Indonesia, mortality and recurrence rates remain high, particularly in West Sumatra, which ranks third in incidence. Breast cancer treatment involves a multimodal approach, including surgery, chemotherapy, radiotherapy, endocrine therapy, and targeted therapy. Additionally, emerging therapeutic strategies, including immunotherapy and precision medicine, are being explored to improve treatment outcomes based on individual tumor biology. However, radiotherapy is not the primary treatment choice in Indonesia due to limited facilities, resulting in a lack of research on its effectiveness. Tumor size measurement is a key parameter for evaluating radiotherapy response, and histopathological type is one of the factors that may influence tumor size reduction.

Objective: To determine the relationship between histopathological type and changes in tumor size before and after radiotherapy in breast cancer patients.

Method: This retrospective cross-sectional study analyzed medical records of 37 breast cancer patients who underwent radiotherapy at Unand Hospital Padang (March - December 2023). Data were analyzed using univariate and bivariate methods, with Wilcoxon and Kruskal-Wallis tests ($p<0.05$).

Results: The Kruskal-Wallis test showed no significant association ($p = 0.499$, $p>0.05$). The Wilcoxon test indicated a significant difference in tumor size before and after radiotherapy ($p = 0.000$, $p<0.05$). Most patients were older than 40 years (83.8%) and female (97.3%). The predominant histopathological type was NST (83.8%), with lymphovascular invasion present in 56.8% of cases and grading II in 62.2%.

Conclusion: There is no significant relationship between histopathological type and changes in tumor size before and after radiotherapy. Further research with a larger sample size and standardized evaluation criteria is recommended to better assess the impact of histopathological characteristics on radiotherapy response.

Keywords: Breast Cancer; Radiotherapy; Histopathological Type; Tumor Size.

HS-27

The Effect of Aloin Extract Administration on Decreasing Blood Glucose Levels in Male Mice (*Mus musculus*) Elderly Modeling Obesity Diabetes Mellitus Type II

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Abstract

Background: Diabetes Mellitus is a condition caused by persistent abnormalities, particularly in the body's carbohydrate metabolism. Type II Diabetes Mellitus is defined by elevated blood glucose levels caused by insulin synthesis, retention, or both. Diabetes treatment seeks to lower blood glucose levels such that they stay steady. Several varieties of medicinal herbs can help lower blood sugar levels. One of these is the Aloe vera plant (Aloe vera). Aloe vera has antioxidants. Aloe vera includes aloin, which has been shown to reduce blood sugar.

Objective: This study aims to determine the effect of administering aloin extract on reducing blood sugar levels in modeling elderly male mice (Mus musculus) obesity with type II diabetes mellitus.

Method: This research uses the Experimental Laboratories method using a Pretest-Posttest Only Control Group Design. The population covered in this study were male mice (Mus musculus) with type II diabetes mellitus aged 18 weeks, weighing 30-40 grams, and having blood glucose levels ≥ 176 mg/dl. Data processing was carried out using a computer with the SPSS program.

Results: Results: According to the research findings, the average blood sugar level before treatment in the treatment group was 182.69 and in the control group was 184.75; the average blood sugar level after the 14th day of treatment in the treatment group of mice was 127.75 and in the control group was 134.88; and the average blood sugar level after the 28th day of treatment in the treatment group of mice was 104.62 and in the control group was 121.13.

Conclusion: On days 14 and 28, blood sugar levels decreased significantly following treatment. Giving aloin extract reduces blood sugar levels in senior male mice with type II diabetes mellitus.

Keywords: Aloin; Diabetes Mellitus Type II; Blood Glucose; Male Mice.

HS-28

Effects of Black Garlic Extract as a Preventive Therapy on Increased Total Cholesterol in Obese Model Rats

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Abstract

Background: Obesity is a condition of excess body fat accumulation that often triggers an increase in total cholesterol levels in the blood, thereby increasing the risk of cardiovascular disease. Black garlic, the fermented result of garlic, is known to have bioactive ingredients such as S-allyl cysteine (SAC) which is effective in lowering cholesterol levels. Objective: to determine the effect of black garlic extract as a preventive therapy in obesity model mice induced by a high-fat and high-fructose diet. Methods: The research method used an experimental design with a pre and post-test group design approach. A total of 28 male Sprague Dawley mice were divided into four groups: negative control (standard diet AIN 93), positive control (high-fat and high-fructose diet), and two treatment groups that were given black garlic extract at a dose of 1.6 ml/day and 0.8 ml/day, respectively. Total cholesterol levels were measured before and after the intervention using spectrophotometry methods. Data analysis using SPSS with Independent t-test. Results: The results showed that the administration of black garlic extract significantly reduced total cholesterol levels in the treatment group compared to the positive control group. A dose of 1.6 ml/day has a greater cholesterol-lowering effect than a dose of 0.8 ml/day. Conclusion: Black garlic extract is effective as a preventive therapy in lowering total cholesterol levels in obese model rats.

Keywords: Black Garlic; Cholesterol Total; Obesity.

HS-29

CD4 Cell Counts as Predictors of Peripheral Neuropathy in People Living with HIV/AIDS Under Antiretroviral Treatment

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Abstract

Background: Peripheral neuropathy refers to damage occurring in peripheral nerves responsible for transmitting signals between the central nervous system (brain and spinal cord) and other body parts. Peripheral neuropathy commonly affects individuals diagnosed with HIV/AIDS, especially those undergoing antiretroviral therapy. HIV/AIDS patients frequently experience reductions in CD4 levels, indicative of immune system deterioration.

Objective: This study aimed to determine the association between peripheral neuropathy and CD4 cell counts in people living with HIV/AIDS (PLWHA) receiving antiretroviral therapy at Dr. M. Djamil General Hospital, Padang.

Methods: This research belongs to the field of internal medicine and neurology and was conducted in November 2024. The design of this study was categorical comparative analytic. The accessible population comprised all PLWHA diagnosed with peripheral neuropathy undergoing antiretroviral therapy at Dr. M. Djamil General Hospital, Padang. Consecutive sampling yielded a sample size of 49 participants. Univariate analysis was presented through frequency distributions, while bivariate analysis employed the Chi-square test.

Results: The majority of patients (31 individuals, 63.3%) exhibited category III CD4 levels and predominantly experienced mild peripheral neuropathy (43 individuals, 87.8%). Most participants received TLD antiretroviral therapy (37 individuals, 75.5%). Statistical analysis indicated a significant relationship between CD4 cell counts and peripheral neuropathy among PLWHA undergoing antiretroviral therapy ($p = 0.034$).

Conclusion: There is a significant association between peripheral neuropathy and CD4 levels among people living with HIV/AIDS receiving antiretroviral therapy.

Keywords: CD4 levels; Peripheral Neuropathy Disorders; HIV/AIDS.

HS-30

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Midwifery Students' Attitudes and Beliefs in Sexual Health Education for Family Planning Acceptors

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Abstract

Background: Midwifery students as future professional health workers, must have positive sexual attitudes and beliefs in order to support client comfort and promote sustained use of contraception. This is primarily achieved through sexual health education as part of their clinical practice.

Objective: This study aims to analyze the attitudes and beliefs of midwifery students regarding sexual health education for family planning acceptors.

Methods: This research is a mixed-method study with an explanatory sequential design, consisting of two phases: quantitative followed by qualitative. In the first phase, a cross-sectional quantitative study was conducted involving 240 students. Data were collected using a socio-demographic questionnaire and the Sexual Attitude and Belief Scale (SABS). The second phase utilized a phenomenological quantitative design to explore and clarify findings from the quantitative phase.

Results: The findings show that 38.9% of students reported feeling uncomfortable discussing sexual issues. Additionally, 30.9% believed that discussing sexuality with patients is a private matter. However, 85.9% believed that patients expect midwives to ask about their sexual health and 85.2% felt confident in addressing patients' sexual concerns. The qualitative phase identified three main themes and six subthemes related to midwifery students' attitudes and beliefs in providing sexual health education for family planning acceptors.

Conclusion: This study highlights the challenges faced by midwifery students in providing sexual health education. The students acknowledged that societal norms that view sexuality as taboo contribute to their discomfort in addressing these issues. Nevertheless, with adequate training and support, midwives can overcome these barriers and provide high-quality sexual health education, thereby enhancing client comfort use of contraceptive methods.

Keywords: Attitude; Beliefs; Midwifery Students; Sexual Health; Family Planning Acceptors.

HS-31

Scoping Review: Implementation of Ayah Siaga Classes in Ante Natal Care Classes in Indonesia

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Abstract

Background: The involvement of husbands as expectant fathers in pregnancy classes is still very low, it is necessary for husbands to participate in prenatal classes so that they can be involved in caring for pregnancy and planning for their wife's baby's birth and postpartum. The Indonesian government has a policy through the SUAMI SIAGA program (husband ready to take care) which aims to enable husbands to be able to respond quickly, make decisions and provide immediate assistance during pregnancy, childbirth, newborn, postpartum of their wives, thus minimizing the risk of delayed referral and handling of complications in the mother and fetus**.**

Objective: The purpose of this study was to identify the implementation of the AYAH SIAGA class in ANC class activities in Indonesia from 2021-2025.

Methods: This type of research is a systematic review with the method used being PRISMA (Preferred Reporting Items for Systematic Reviews). Data was accessed from 2 database sources, namely Google Scholar, and PubMed. The literature was reviewed in the range of 2021 to 2025 which was original research with all designs such as; quasi-experiment, and pre-experiment. There were 11 suitable research articles. The research subjects were pregnant women and their husbands/partners.

Results: there were 11 articles from the search process, with 3 main themes, namely: factors that influence father participation in pregnancy classes, media used during the ayah siaga class, positive impact on pregnant women and positive impact on fathers in participating in the ayah siaga class in prenatal classes.

Conclusion: the implementation of ayah siaga classes in pregnancy classes provides an opportunity for mothers and fathers to communicate in making the best decisions and can understand the importance of planning, caring for pregnancy and planning for safe and healthy births and preventing complications that are detrimental to the mother and fetus in the future.

Keywords: Ayah Siaga Class; ANC class; Pregnancy; Indonesia.

HS-32

Transformational Leadership Style of Head Nurses and Soft Skills of Nurses Practitioners in Private Hospitals in Pekanbaru, Riau

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Abstract

Background: Transformational leadership is a leadership style that prioritizes providing opportunities and/or encouragement for all elements in the organization to work on a noble value system, willing without coercion, and participate optimally in order to achieve organizational goals. The leadership style of the head of the room can at least affect the nurse's performance, work motivation and job satisfaction. Transformational leadership is needed and can change the attitudes and behaviors of nurses' practitioners, in general has a correlation with the soft skills of implementing nurses, namely in terms of the ability of nurses to adapt, communicate, collaborate, solve problems, be confident, disciplined and thorough.

Objective: This study aims to identify the transformational leadership of the head nurse and the soft skill abilities of the practitioners' nurses as well as the relationship between them

Methods: This study used quantitative research with a descriptive research design. Number of respondents 215 nurses' practitioners. The sampling technique used was purposive sampling, with inclusion criteria being nursing associates in inpatient wards who were willing to participate as respondents to assess the leadership of their respective nurses' heads. The instrument used was a nurse soft skill and implementation of a leadership style questionnaire. The analysis used is frequency distribution and chi-square statistical test to analyze variable relationships.

Results: The results of this study showed that most (73.3%) nurses' practitioners had good soft skills, and nurses' practitioners with positive results that most (76.7%) with (p-value 0.001< 0.05) There was a relationship between transformational leadership to the nutmeg space and the soft skills of nurses' practitioners in the inpatient room of Private Pekanbaru Hospital.

Conclusion: Nurse practitioners' soft skills are influenced by the leadership style of the head of the nurse. Thus, the transformational leadership style of the head of the room can have a positive impact on the soft skills of the implementing nurses, which can ultimately improve the quality of health services.

Keywords: Transformational Leadership; Head Nurses; Nurse Practitioners

HS-33

Analysis of Quality of Life and Influencing Factors in Cervical Cancer Patients

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Abstract

Background: Cervical cancer is the second most common female cancer worldwide and one of the second leading causes of death in women. In Indonesia each year there are about 36,633 new cases of cervical cancer and deaths of about 9,498 cases. Cervical cancer patients often experience impaired quality of life. An in-depth understanding of the determinants of the quality of life of cervical cancer patients is the basis for designing holistic interventions that improve patient well-being.

Objective: This study aims to determine the quality of life and factors that influence it in cervical cancer patients.

Methods: This study used a quantitative approach with a cross-sectional design involving 78 cervical cancer patients. Data were collected through questionnaires measuring the level of spirituality (Spiritual Well-Being Scale), adherence to therapy (MMAS/Morisky Medication Adherence Scale), support from health workers, and patient quality of life (OERTC QLQ-CX24). Statistical analysis was performed using the Chi-Square test to assess the relationship between variables. This study was conducted at Arifin Achmad Hospital Pekanbaru.

Results: 61.5% of respondents have moderate quality of life, 50% of patients' spirituality is high, 39.7% of patients are compliant in carrying out therapy, and 61.5% of patients get good support from health workers. Spiritual factors (p=0.024), therapy compliance (p=0.014), and support from health workers (p=0.012) affect the quality of life of cervical cancer patients**.**

Conclusion: The findings showed that the level of spirituality, therapy adherence, and support from health workers have a significant relationship with the quality of life of cervical cancer patients. The higher the level of spirituality and therapy adherence, and the better the support from health workers, the greater the chance of patients experiencing an improved quality of life.

Keywords: Health Worker Support; Adherence to Therapy; Quality of Life; Cervical Cancer; Spirituality.

HS-34

The Influence of Dahlia Tubers Extract *(Dahlia variabilis)* on Diabetic in Rats

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Abstract

Background: Diabetes mellitus is a chronic metabolic problem disease defined by hyperglycemia that is recognized as a silent killer and the mother of the disease, causing complications and endangering health. Inulin is a natural fiber found in dahlia tubers (*Dahlia variabilis*) that functions as a dietary fiber and is suitable for diabetics to consume.

Objective: The purpose of this study was to see how inulin from dahlia tubers affects blood glucose levels in diabetic rats.

Methods: The rats were randomized into five groups at random: normal control, STZ-induced diabetic, STZ-induced diabetic with inulin (0.5 mg/g BW), STZ-induced diabetic with inulin (1.0 mg/g BW), and STZ-induced diabetes (1.5 mg/g BW). Before and after treatment, rats' blood glucose levels were assessed.

Results: This study discovered that inulin doses of 0.5mg/g BW, 1.0mg/g BW, and 1.5mg/g BW lowered rats' fasting blood glucose levels. When compared to the other treatment groups, the rats administered inulin at a dose of 1.5mg/g BW demonstrated the most significant drop in fasting blood glucose levels ($p<0.05$). The reduction in fasting blood glucose levels of rats in the treatment group was accompanied by a substantial reduction in body weight compared to the normal control group ($p<0.05$) at the end of the treatment.

Conclusion: From the study, it was found that administration of inulin from dahlia tuber extract at a dose of 1.5 mg/g BW could significantly reduce blood glucose levels and body weight in diabetic rats.

Keywords: Body Weight; Diabetes Mellitus; Blood Glucose; Insulin; Dahlia Bulbs.

HS-35

Risk Factors for Musculoskeletal Disorders in Intensive Care Unit Nurses

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Abstract

Background: Musculoskeletal disorders (MSDs) are a common health issue among healthcare workers, especially nurses. Musculoskeletal Disorders (MSDs) are conditions that cause problems (pain) in the muscular and skeletal systems due to excessive stretching of body parts, direct impacts, or other activities that lead to damage in the muscular and skeletal systems. MSDs are reported to occur more frequently among critical care unit nurses compared to clinical care unit nurses.

Objective: This study aims to analyze the risk factors for the occurrence of MSDs among nurses in the intensive care unit.

Methods: This study involved 70 research samples from the General Intensive Care Unit, Pediatric Intensive Care Unit, and Cardiovascular Intensive Care Unit. The research was conducted cross-sectionally using instruments such as a basic data questionnaire for age, length of service, and Body Mass Index; the Nordic Body Map (NBM) questionnaire for musculoskeletal disorders; and the Rapid Entire Body Assessment (REBA) questionnaire for ergonomic risk positions. The Spearman rank test was used to determine the relationship between variables.

Results: The distribution of respondent data based on characteristics shows that the majority of respondents are late adults (36-45 years old) with 31 respondents (44.9%), followed by the majority being female with 65 respondents (94.2%), having a work experience of > 5 years with 47 respondents (68.1%), and having a normal BMI range with 44 respondents (63.8%). The most common MSDs were in the waist area, accounting for 53.62%, followed by complaints in the back at 48.55% and the upper neck at 44.93%. The ergonomic risk in the moderate category was found in 43 respondents (62.3%). The results of the Spearman Rank Test showed a p-value of 0.017 (<0.05), indicating a positive correlation between ergonomic risk positions and musculoskeletal disorders among intensive care nurses.

Keywords*:* Musculoskeletal disorders (MSDs); Intensive Care Unit Nurses; Ergonomic Risk Positions.

HS-36

The Effect of Nutrition Pillar Education on Students' Ability to Identify Nutritional Nursing Problems in Patients with Diabetes Mellitus

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Abstract

Diabetes mellitus (DM) as a metabolic disorder disease requires 4 pillars of DM management consisting of nutrition, physical exercise, education and pharmacology. It is useful for controlling blood sugar levels and the course of the patient's disease. The increasing incidence of diabetes in the world, including in Indonesia and Riau, requires maximum treatment because it has a great impact on the occurrence of various kinds of complications. The main treatment is related to nutrition management. There is a change in lifestyle that makes people consume more ready-to-eat and high-calorie foods will have an impact on the damage to the patient's body's metabolism. Therefore, it is necessary to play the role of professional nurses who have good skills in overcoming the nutritional problems of DM patients. Unfulfilled nutritional pillars will have a bad impact and cause various health problems such as instability of blood sugar levels and complications of chronic disease. Nutrition issues should be a priority nursing issue for DM patients, while many nursing students still prioritize other nursing issues. This will have an effect on inappropriate interventions. So, it is important to make efforts to improve the ability of nurses since they become nursing students through interesting media, one of which is by using animated videos. This study aims to determine the influence of nutrition pillar education on students' ability to identify nutritional nursing problems in DM patients. This study is a quasi-experiment research with a sample of 126 students with a control group. Data were analyzed using *the Wilcoxon* test and *the Mann-Whitney test*. The results of the statistical test obtained *a p-value* of 0.001 < 0.05, so it can be concluded that there is a difference between the intervention group and the control group. Further research is needed related to education on all 4 pillars of DM management.

Keywords: Education; Nutrition Issues; Diabetes Mellitus Animated Videos

HS-37

Analysis of Nurse's Knowledge of Discharge Planning at Arifin Achmad Regional Hospital Riau Province

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Abstract

Background: Nurses are one of the health workers who contribute to improving health services, one of which is in discharge planning. Discharge planning is an ongoing process that aims to help patients and families achieve independence in post-hospitalization care at home to prevent relapse. The success of this process is influenced by various factors, one of which is nurses' level of knowledge.

Objective: Knowing the level of knowledge of nurses about discharge planning at Arifin Achmad Regional Hospital, Riau Province

Methods: This study used a quantitative method with a descriptive design. The research sample comprised 96 implementing nurses in eight Arifin Achmad Hospitals in Riau Province, inpatient rooms. The sampling technique was carried out using the Proportionale Stratified Random Sampling method. Data collection used primary sources using questionnaires.

Results: Nurses' knowledge of discharge planning was suitable for as many as 92 people (95.83%) and sufficient knowledge as many as four people (4,17%), where 28.12% of nurses did not understand their role and function in discharge planning, 12.8% of nurses did not know that the purpose of discharge planning was so that patients would not relapse after returning home, providing continuous information on discharge planning not only when going home was unknown to 10.4% of nurses

Conclusion: Discharge planning is a nursing task that aims to improve patient health, prevent disease recurrence, improve quality of life, and increase patient participation in maintaining their health.

Keywords: Knowledge; Nurse; Discharge Planning.

HS-38

The Effect of Hypertension Self-Management Education Through Hypertension-ID Website Application on Hypertension Patient Self-Care Knowledge in the Rejosari Puskesmas Working Area, Pekanbaru City

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Abstract

Background: Hypertension is a disease characterized by an increase in blood pressure above 140/90 mmHg. Hypertensive disease can cause ongoing complications, to reducing the risk requires the patient's level of knowledge in carrying out treatment and hypertension management behavior. One of the management of hypertension with education, education that has proven effective in hypertensive patients is Hypertension Self-Management Education (HSME) a process to provide knowledge to patients regarding the application of self-care independently in hypertension self-management. One form of HSME is the use of the Hypertension-ID web-based application.

Objective: This study aims to determine the effect of HSME through Hypertension-ID on the self-care knowledge of hypertensive patients in the working area of Puskesmas Rejosari Pekanbaru City

Methods: The method used is quantitative research using a quasi-experimental design with pre and post-tests without a control approach. The sample in this study was 147 patients with hypertension who were determined by purposive sampling technique. The instruments used were the Hypertension Self-Management Questionnaire and the Hypertension-ID web-based application. Univariate and bivariate analyses with Wilcoxon signed-rank test were used.

Results: The results showed that there was an increase in self-care knowledge in hypertensive respondents with a mean of 70.69 before education to 99.15 after receiving HSME through the web-based Hypertension-ID application. The Wilcoxon test results obtained a p-value (0.001) < (0.005), so H0 is rejected, which means that there is a difference in the average knowledge of hypertensive patients through the website-based Hypertension-ID application.

Conclusion: This research can be developed to increase the effectiveness of the HYPERTENSION-ID website application in increasing the self-care knowledge of hypertensive patients.

Keywords: Hypertension; Apps; Website; Knowledge; Self-care.

HS-39

The Relationship Between Bullying and Mental Health Among Students

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Abstract

Background: Bullying is a prevalent social issue in school environments and can negatively impact students' mental health. The higher the intensity of bullying experienced, the greater the risk of students developing psychological disorders such as stress, anxiety, and psychological distress.
Objective: This study aims to analyze the relationship between bullying and mental health among 11th-grade students at SMA Negeri 2 Pekanbaru.
Methods: This research employed a quantitative method with a correlational study design and a cross-sectional approach. The sample consisted of 198 students selected through stratified random sampling. The study was conducted from January 10 to 17, 2025. Data were collected using the Olweus Bully/Victim Questionnaire (OBVQ) to assess the level of bullying and the Mental Health Inventory (MHI-38) to measure students' mental health conditions.
Results: The findings indicated that more than half of the respondents (54.0%) experienced a moderate level of bullying, while 63.1% of the students were found to suffer from psychological distress. Bivariate analysis using the chi-square test revealed a significant relationship between bullying and students' mental health, with a p-value < 0.05. Therefore, the null hypothesis (Ho) is rejected, and the alternative hypothesis (Ha) is accepted, indicating a significant association between bullying and mental health among 11th-grade students at SMA Negeri 2 Pekanbaru.
Conclusion: These results suggest that the higher the level of bullying experienced by students, the poorer their mental health condition. This study emphasizes the crucial role of schools, families, and the broader environment in fostering a safe and supportive atmosphere for students to prevent the adverse effects of bullying on mental health. Interventions such as anti-bullying programs and mental health counseling are essential to enhance students' psychological well-being.

Keywords: Bullying; Mental Health; Student.

HS-40

Formalin and Borax Content Test Using Dragon Fruit Peel Extract and Turmeric in Children's Snacks at State 68 Pekanbaru Elementary School

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Abstract

Background: Snacks are certain foods that can affect the quality of human resources in the long term. In addition to being related to its nutritional content, it is also vulnerable to the content of BTP whose use is prohibited. Because it contains chemicals such as formalin and borax which can be harmful to health. The low level of safety of School Children's Snacks (PJAS) is still an important problem, this is because school-age children are in a period of growth and development, so they need safe and healthy nutrition or food without chemicals to support their growth process.

Objective: This study aims to determine the analysis of formalin and borax content using dragon fruit skin extract and turmeric in children's snacks at State Elementary School 68 Pekanbaru.

Methods: The type of research used is quantitative with experimental methods. The sample amounted to 12 snack foods from 7 snack vendors at State Elementary School 68 Pekanbaru The sampling technique was total sampling.

Results: Research results on children's snacks were analyzed using dragon fruit skin extract, from 12 samples (100%) of snack foods, there were 4 snack food samples that were positive for containing formalin with a percentage of 33.3 % and 8 snack foods that were negative for containing formalin with a percentage of 66.6 %. Meanwhile, the borax content in children's snacks at Pekanbaru 68 Public Elementary School after being analyzed using turmeric extract, from 12 samples (100%) of snack foods, namely 12 samples or all samples, no borax content was found with a percentage of 100%.

Conclusion: It is hoped that the results of this study can be followed up by schools, such as by providing counseling or education related to the dangers of using formalin preservatives.

Keywords: Snacks; Formalin; Borax.

HS-41

Influence of Baby Massage on Sleep Intensity of Babies Aged 1 – 6 Months at Cahaya Bunda Mom and Baby Care

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Abstract

Background: Based on data from the World Health Organization (WHO) in 2012 which was published in the pediatrics journal, 33% of babies have problems sleeping. The importance of sleep time for babies must be met so that there will be no negative effects on their development. One of the efforts made to increase the intensity of baby sleep is by doing baby massage.

Objective: The aim of this study was to determine the effect of baby massage on the sleep intensity of babies aged 1-6 months at Cahaya Bunda Mom and Baby Care in 2024.

Methods: This type of research is a quasi-experimental study, with a Group Pretest and post-test design approach, in this study consists of an intervention group that received baby massage treatment. The data collection instrument used a questionnaire. The sampling technique in this study was total sampling. In this study, the sample was all babies aged 1-6 months at Cahaya Bunda Mom and Baby Care who had problems with their sleep intensity, totaling 15 respondents.

Results: the results of the univariate analysis of respondent characteristics based on age showed that the majority of respondents were aged 1 and 4 months, namely 26.7% and based on gender, there were 8 males and 7 females. Based on the results of the Shapiro-Wilk normality test, the results were 0.465> 0.05, which means that the residuals were normally distributed. The results of the paired sample T test p-value 0.00 <0.05, indicating that Ha was accepted and Ho was rejected.

Conclusions: Baby massage has been proven to be effective in increasing the sleep intensity of babies aged 0-6 months at Cahaya Bunda mom and baby care.

Keywords: Baby Massage; Baby Sleep Intensity.

HS-42

Nursing Leadership among Riau Malay Ethnic in Hospital Wards

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Abstract

Background: Effective leadership in hospital wards has a significant impact on nurses' performance. Leaders who are able to create a positive work environment, have been enhance nurse performance and improve the quality of care, ultimately increasing patient satisfaction with nursing services. A leader's work culture is one of the key factors that supports the development and continuous improvement of hospital inpatient wards. This work culture emerges from the habits adopted by the leader, which are influenced by the leader's characteristics such as educational background, ethnicity, and other factors that shape their attitudes and leadership style in improving the quality of inpatient care services in hospitals.

Objective: The aim of this study is to examine the leadership satisfaction of nurses from the Riau Malay ethnic in hospital inpatient wards in Pekanbaru City, Riau Province, Indonesia.

Methods: This study used quantitative research employing a cross-sectional design, with a sample of 240 nursing associates in hospital wards. The sampling technique used was purposive sampling, with inclusion criteria being nursing associates in inpatient wards who were willing to participate as respondents to assess the leadership of their respective ward heads. The instrument used was a nurse satisfaction questionnaire regarding the ward leaders, aimed at measuring leadership satisfaction.

Results: The research findings indicate that more than half (57%) of inpatient ward leaders in the hospital are of Riau Malay ethnicity. Furthermore, the majority (84%) of nursing associates expressed satisfaction with the leadership of wards from the Riau Malay ethnic.

Conclusion: Nurses from various ethnic backgrounds expressed satisfaction with the leadership of nurses from the Riau Malay ethnic in Indonesia. This satisfaction is influenced by the cultural values and leadership styles adopted, which aim to enhance the performance of nursing associates and ultimately improve patient satisfaction with nursing services.

Keywords: Nursing Leadership; Riau; Malay Ethnic.

HS-43

Enhancing Emotional Stability in High-Risk Patients Through Drawing Therapy

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Abstract

Background: Risk of Violent Behavior (RVB) is a serious issue in psychiatric nursing that can endanger both the patient and those in the surrounding environment. Emotions are one of the main triggers for the occurrence of violent behavior. The intensity of experiences whether mild or severe can provoke various emotional responses that differ from one individual to another. Uncontrolled emotions are generally characterized by symptoms such as speaking in a loud and harsh tone, glaring with wide-open eyes, facial flushing, tense muscles, a tendency to argue and impose one's will, and even engaging in physical violence toward oneself or others. Given these symptoms, intensive intervention is needed to prevent more serious consequences. One non-pharmacological approach believed to be effective is drawing therapy, which can help stabilize the patient's emotions and reduce the risk of violent behavior.

Objective: This study aims to examine the effect of drawing therapy on the emotional state of patients at risk of violent behavior.

Methods: This study is quantitative research with a quasi-experimental design using a one-group pre-test and post-test without a control design approach. The research was conducted at Tampan Mental Hospital, Riau Province. The population consisted of patients at risk of violent behavior. The sample included 20 respondents selected using the purposive sampling technique. The instruments used in this study were the Emotion Regulation Questionnaire (ERQ) and the Standard Operating Procedure (SOP) for free drawing therapy. The therapy was conducted for 25 minutes in each session, with a total of five sessions held over the course of one week.

Results: The findings showed an increase in the average emotional score from 32.80 (SD = 1.005) in the pre-test to 33.55 (SD = 1.356) in the post-test. This improvement indicates a positive change in patients' emotional states after the drawing therapy.

Conclusion: Drawing therapy has the potential to positively influence the emotional condition of patients at risk of violent behavior. It is recommended as an alternative nursing intervention in managing RVB patients.

Keywords: Drawing Therapy; Risk of Violent Behavior; Emotion; Mental Health Nursing.

HS-44

Forms and Frequency of Bullying Behavior Among Junior High School Students: A Descriptive Study

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Abstract

Background: Bullying is a persistent issue in school settings and has significant consequences on students' psychological and social well-being. While most studies focus on victims, understanding bullying from the perpetrator's perspective is equally important for effective prevention.

Objective: This study aims to identify the frequency and various forms of bullying behavior committed by junior high school students within a specified time.

Methods:

This is a descriptive quantitative study using a total sampling technique. The participants were 248 junior high school students aged 13–15 years. Data were collected using the perpetrator version of the Olweus Bullying Questionnaire, which measures multiple forms of bullying behavior, including physical, verbal, social, and sexual types. The frequency of involvement was assessed over the past several months.

Results: The findings showed that the most frequently occurring behavior was damaging or stealing belongings, with most students reporting doing so at least once a week. Verbal bullying and sexually suggestive behaviors also appeared with high and consistent frequency. In contrast, spreading lies or rumors was the least reported form of bullying. Only four students reported never engaging in any bullying behavior.

Conclusion: Bullying among junior high school students occurs in various forms and is practiced by a large portion of the student population. These findings highlight the need for comprehensive and sustainable anti-bullying programs that target not only the victims but also provide early intervention for the perpetrators.

Keywords: Bullying; Aggressive Behavior; Junior High School; Students; Olweus Questionnaire; School Violence.

HS-45

The Influence of Animated Video Media on Knowledge and Attitudes of Female Teens in Stunting Prevention at Sman 1 Tempuling

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Abstract

Background:
Stunting is a serious problem because it is associated with the risk of morbidity and mortality in children, poor brain and motor development and delayed mental development. An animated video is a combination of audio and visuals from a collection of moving image objects, so that an image object is created that looks real and seems more lively and attracts attention.

Purpose:
To determine the influence of animated video media on the knowledge and attitudes of female adolescents in preventing stunting at SMAN 1 Tempuling.

Methods:
The research method used is a Quasi-experimental design. In this research, there are two groups, namely the experimental group and the control group. This research was carried out at SMAN 1 Tempuling, Sungai Salak Village, Tempuling District, Indragiri Hilir Regency in May 2024-June 2024. The sample of respondents in this research was 124 respondents using the quota sampling technique The results of the research show that the animated video media for preventing stunted births for young women is declared feasible and is expected to help in efforts to reduce the prevalence of stunting.

Results: The results of statistical tests using simple linear regression analysis in the experimental group obtained a significance value (p) of 0.00 which was smaller than α 0.05 so there was a relationship between the animated video and the student's knowledge and attitude variables. In the T test, a significance value (p) of 0.00 was obtained, meaning that the independent variable (animated video) had an influence on the dependent variable (knowledge and attitudes).

Conclusion: There is a significant relationship between animated videos on students' knowledge and attitudes with a value of P 0.00 which is smaller than P 0.05

Keywords: Stunting; Animation Video; Teenagers.

HS-46

Factors Affecting Medication Adherence Among Patients with Type 2 Diabetes

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Abstract

Medication adherence plays a crucial role in the management of Type 2 Diabetes Mellitus (T2DM), especially to prevent complications and improve the quality of life of patients. However, the very low level of patient adherence harms the effectiveness of therapy and their overall health. This study's purpose was to identify and analyze factors that influence medication adherence in T2DM patients. This study used the Systematic Literature Review method by reviewing relevant studies from journal platforms such as Springer, ScienceDirect, Google Scholar, and BMC Public Health. Inclusion criteria focused on age, gender, and education level. A detailed search in the selected databases found 17.817 articles. After careful screening, six articles were considered relevant for the review. The results of the study showed that age factors have a significant relationship with adherence, where older patients tend to have lower adherence due to the complexity of the treatment regimen and cognitive impairment. Gender factors also have an influence, with several studies showing that women have higher adherence levels than men. In addition, education plays an important role in improving patient's understanding of treatment, and patients with higher levels of education tend to be more adherent to undergoing medical therapy. In conclusion, these findings confirm that education-based interventions and approaches tailored to age groups and gender can improve patient adherence to T2DM treatment.

Keywords: Type 2 Diabetes Mellitus; Medication Adherence; Age; Gender; Education.

HS-47

A Study to Investigate Expressions of Faulty Gene That Cause Diseases

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Abstract

The etiology of many diseases is often attributed to the combined influence of genetic and environmental factors. The discovery of noteworthy genetic features has value in both medical and scientific domains. In the medical field, it aids in the creation of drugs and tailored treatment, while in the scientific realm, it provides insights into the mechanical and evolutionary aspects of illnesses. Linkage analysis, a method that identifies loci with a tendency to be inherited together, and the study of association are among the several genetic techniques that have shown associations between diseases and specific genomic regions, therefore mapping the link between alleles at distinct loci. A multitude of genes are scrutinized in these sorts of investigations, beyond the capacity for experimental testing as probable illness genes. The use of computational techniques to evaluate the potential of certain genes within a given chromosomal region as disease-causing genes is very advantageous. Considerable evidence has been presented on the susceptibility of several illnesses. Alterations in the tempo at which genetic material is transcribed into functional molecules throughout different cellular lineages. In the event that an individual gene or genetic cluster exhibits a higher prevalence among persons with illnesses compared to those who are healthy, it is probable that such gene or genetic cluster contributes to the development or manifestation of the respective illnesses. Microarray studies have been widely used as the primary approach for identifying variations in gene expression levels.

Keywords: Gene Expression; Hereditary Diseases; Genetic; Disease.

HS-48

Investigating the Impact of Lifestyle Factors on Breast Cancer Prognosis in the Chinese Women Population

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Abstract

This study investigates the impact of lifestyle factors on breast cancer prognosis among Chinese women. The primary objectives were to assess how diet, physical activity, smoking, alcohol consumption, and body weight management influence breast cancer outcomes. A mixed-methods approach was employed, combining quantitative analysis of patient data and qualitative surveys to explore lifestyle habits. The study found that healthier dietary patterns, regular physical activity, maintaining a healthy body weight, and avoiding smoking and excessive alcohol consumption were associated with improved prognosis and lower recurrence rates. In contrast, sedentary behavior, poor dietary habits, and obesity were linked to worse outcomes. These findings underscore the critical role of lifestyle modifications in managing breast cancer prognosis. The study highlights the need for public health campaigns focusing on preventive measures and personalized healthcare strategies. Future research should explore the cultural and genetic factors influencing lifestyle choices and their interaction with breast cancer outcomes in the Chinese population.

Keywords: Lifestyle Factors; Breast Cancer; Chinese Women.

HS-49

Correlation of Preoperative Anxiety Level with Postoperative Shivering in Sectio Caesarea Patients with Spinal Anesthesia at RSI Siti Rahmah

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Abstract

Background :

Preoperative anxiety is common in patients undergoing cesarean section, especially with spinal anesthesia. This condition can affect the body's physiological response, including triggering postoperative shivering which can cause discomfort and the risk of increased oxygen requirements.

Purpose :

This study aims to analyze the relationship between preoperative anxiety levels and postoperative shivering in cesarean section patients with spinal anesthesia at RSI Siti Rahmah.

Method :

This study used an observational analytical design with a cross-sectional approach. Data collection was carried out prospectively by observing cesarean-section patients who met the inclusion criteria. Anxiety levels were measured using the APAIS questionnaire, while shivering incidence was assessed using the Wrench criteria.

Result :

In this study, 15 cesarean section patients experienced severe anxiety and shivering with a percentage of 88.2%. This study shows that patients with high preoperative anxiety have a greater incidence of postoperative shivering than patients with lower anxiety. The result of the statistical test using the chi-square method obtained a significance value of p-value 0.00, which means that there is a relationship between the level of anxiety and the incidence of shivering.

Conclusion :

There is a significant relationship between preoperative anxiety and postoperative hovering in cesarean section patients with spinal anesthesia. Preoperative anxiety management has the potential to reduce shivering incidences which has an impact on increasing patients' comfort and safety.

Keywords: Preoperative anxiety, postoperative shivering, cesarean section, spinal anesthesia.

HS-50

Study on the Active Components of *Lycium barbarum* in the Treatment of Alzheimer's Disease

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Abstract

Alzheimer's disease (AD) is a common neurodegenerative disease characterized by progressive cognitive decline. With the acceleration of global aging, the incidence of AD is rising year by year, placing a tremendous burden on both society and families. In recent years, more and more research has focused on the potential of plant-derived natural compounds in combating AD. Lycium barbarum, as a traditional medicinal herb, is rich in nutrients and bioactive compounds and has garnered increasing attention from researchers. This review aims to summarize the research progress of goji berry active ingredients in the treatment of Alzheimer's disease and explore their potential mechanisms.

Keywords: Alzheimer's disease (AD); Lycium barbarum; goji berry

HS-51

Comparative Gas Chromatography-Mass Spectrometry Analysis of *Nigella sativa* Varieties Romanian, Sudani, Bangladeshi, Hama (Syrian)

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Abstract

Nigella sativa, commonly known as black cumin, is widely recognized for its medicinal properties, including its antihyperuricemic, antioxidant, and anti-inflammatory effects. This study aimed to evaluate and compare the antihyperuricemic potential of three varieties of Nigella sativa seeds from Bangladesh, Syria, and, Romania which is considered a native country for *Nigella sativa* as well as their phytochemical composition. Using Gas Chromatography-Mass Spectrometry (GC-MS), key bioactive compounds, such as thymoquinone, p-cymene, and α-phellandrene, were identified and quantified. An animal model of hyperuricemia was established in Sprague-Dawley rats using a fructose-brewer's yeast diet, and therapeutic effects were assessed by administering standardized doses of Nigella sativa and comparing their efficacy to allopurinol, a conventional gout medication. The results revealed significant phytochemical variability among the three origins, with Romanian Nigella sativa exhibiting the highest levels of thymoquinone and p-cymene, while the Syrian variety showed unique bioactivity despite lower thymoquinone content. Statistical analysis demonstrated that all three seed varieties effectively reduced uric acid levels, with Romanian Nigella sativa producing the most significant reduction. In silico predictions using pkCSM , SuperPred and Pro Tox III provided insights into LD50 & mechanisms of action and pharmacokinetics, highlighting the potential of Nigella sativa as a complementary treatment for hyperuricemia and gout which is superior to antihyperuricemic drugs like Allopurinol by wide therapeutic potentials on diabetes and inflammation and arthritis and as analgesic, This research emphasizes the importance of geographical influence on the medicinal properties of Nigella sativa and contributes to the understanding of its pharmacological applications and help to choose convenient origin for the industry.

HS-52

Evaluation of in vitro Antioxidant and in vivo Antidiabetic Potential *of Maesa ramentacea* Stem Extracts Combining Computational Studies

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Abstract

Maesa ramentacea (Roxb.) A. DC is a small tree of the Myrsinaceae family which is traditionally used in Thai and Malaysian traditional medicine. Many species of Maesa showed prominent antioxidant and antidiabetic effects while *M. ramentacea* remains unexplored. Therefore, we aimed to investigate phytochemical profile, antioxidant and antidiabetic effects with computational studies of it. Crude extraction was carried out in methanol by maceration, and it was fractionated with petroleum ether, dichloromethane, ethyl acetate and distilled water. The phytochemical profile was investigated by estimating total phenol (TPC) and total flavonoid (PFC) content while the antioxidant potential was assessed by total antioxidant content, DPPH radical scavenging and ferric-reducing power methods. The antidiabetic activity was measured by *in vitro* α-amylase and α-glucosidase inhibitory methods while a streptozotocin-induced *in vivo* diabetic model was followed in Swiss albino mice. Moreover, the phytochemical profile in methanol extract was elucidated by GC-MS analysis, and binding affinities of these compounds were determined with respective proteins by molecular docking and nonbonding interactions. Methanol extract and ethyl acetate fraction showed prominent TPC, TFC, antioxidant potential, and both in vivo and in vitro antidiabetic effects. In the GC-MS analysis 14 compounds were identified, and among them "Flavanone, 3-hydroxy-3',4',5,7-tetramethoxy" showed the highest binding affinity (-9.1Kcal/mol) with antioxidant protein (6NGJ) and maximum affinity (-7.3 Kcal/mol) with α-glucosidase protein (3W37) while "1-(2,4-dimethoxybenzyl)-4-(2-methoxybenzoyl) piperazine" showed highest binding score (-8.2 Kcal/mol) with α-amylase protein (2QV4) and "Squalene" showed the maximum affinity (-9.1 Kcal/mol) with the diabetic protein (1EL3). This finding consolidates the antioxidant and antidiabetic effects of the extracts. Moreover, these might be a good lead compound for the discovery and development of new therapeutic drugs.

Keywords: *Maesa ramentacea*; Antioxidant; α-amylase; Antidiabetic effect; Molecular docking.

HS-53

Relevance of Sociodemographic Status to the Potential for Perinatal Depression Post-Natural Disasters in West Sumatra-Indonesia: A Preliminary Study

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Abstract

Indonesia is one of the countries at high risk of disasters due to its geographical and geological conditions. Based on the 2022 Indonesian Disaster Risk Index measurement, West Sumatra Province is included in the high-risk category with a value of 144.39, which has a disaster threat, namely earthquakes, tsunamis, volcanoes, floods, landslides, droughts, extreme weather, extreme waves and abrasion, and forest and land fires. The effects of natural disasters can trigger an increase in depressive symptoms during and after pregnancy, which is a serious threat to global public health. WHO data from 2024, show that almost 300 million people need humanitarian assistance, with an increased risk of mental health in disaster-affected populations. This study aimed to analyze the relationship between socio-demographic status and the potential incidence of perinatal depression post-natural disasters in West Sumatra. This is an analytical observational study with a cross-sectional approach conducted in Agam Regency, Tanah Datar Regency, and Padang City. Data collection was carried out in October-December 2024. The number of samples was 23 pregnant women, with a sampling technique that was carried out using purposive sampling. The research instrument used was the Edinburgh Postnatal Depression Scale (EPDS) Questionnaire. Data were analyzed univariately and bivariately with the Chi-Square test with a significance level of $\alpha = 0.05$. The results of this study showed that 52% of pregnant women experienced perinatal depression. The bivariate analysis results obtained significant values for the variables age $p = 0.001$, education $p = 0.001$, occupation $p = 0.003$, parity $p = 0.036$, family income $p = 0.009$, and history of miscarriage $p = 0.007$. It was concluded that all these variables were related to the potential for perinatal depression in pregnant women post-natural disasters in West Sumatra, Indonesia.

Keywords: Perinatal, Depression, Post-natural disaster, Socio-demographic

HS-54

Evaluation of Different Varieties Mixture of Fruit Peel for its Potential as a Functional Food

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Abstract

Introduction: Functional foods provide essential nutrition along with additional health benefits, promoting well-being and reducing illness risk. This research explores using fruit peels from durian, mata kuching, dragon fruit, mangosteen, and rambutan as natural food ingredients. These peels, rich in beneficial compounds like flavonoids, phenols, and alkaloids, exhibit antioxidant and antimicrobial properties. Utilizing these peels also reduces food waste while offering budget-friendly dietary options without relying on supplements or medications.

Method: Peels from each fruit were collected, washed, dried, and ground into a fine powder. The powders were blended in equal ratios to create a fruit peel mixture (FPM). Bioactive compounds were extracted using a 70:30 ethanol-water solvent, and phytochemical analyses were conducted to evaluate anti-ulcer, antihistamine, antidepressant, and antioxidant activities through DPPH assays. Nutritional composition, including fiber, fat, protein, and carbohydrates, was determined using standard methods.

Results: The combined peel mixture of *Durio zibethinus* (durian), *Nephelium lappaceum* L. (Rambutan), *Selenicereus undatus* (dragon fruit), *Euphoria malaiense* (Mata Kuching), and *Garcinia mangostana* L. (mangosteen) were examined for its physicochemical properties and functional food potential. No toxicity was observed in acute tests at 72 mg extract or even at higher doses (500 mg/kg and 1000 mg/kg) during sub-acute evaluations compared to control animals. The extract demonstrated significant bioactive activity, particularly in anti-ulcer, antihistamine, antidepressant, and antioxidant properties, indicating its potential as a safe and effective functional food component beneficial for health promotion and the prevention of oxidative stress-related diseases.

Conclusion: The peels of rambutan, Mata Kuching, durian, mangosteen, and dragon fruit show potential as functional food, exhibiting antioxidant, anti-ulcer, antihistamine, and antidepressant effects. Non-toxic in chronic and sub-chronic tests, they hold therapeutic promise. Further research should explore mechanisms and optimal dosages for food and pharmaceutical use.

Keywords: Functional food, Phytochemicals, DPPH assay, Fruits peels.

HS-55

Extraction of Chinese Green Tea and Its Toxicological Evaluation

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Abstract

Green tea extract has numerous health benefits along with anticancer activity due to the presence of powerful antioxidants, but there are some controversial adverse effects, in the case of long-term treatment as well as dose-dependent. This study focused on the identification and content of bioactive components of Chinese green tea extract and investigated their toxicological effect on the pathological and histological of rats. The study was designed for an acute dose of 2000 mg/kg green tea extract for seven days. Sub-acute doses of 300 mg/kg, 500 mg/kg, and 1000 mg /Kg for 28 male and female BN rats. Results demonstrated that all rats were alive, and biochemical parameters met the reference values. Slight histopathological changes were observed in the liver at a dose of 1000 mg/kg. These findings suggest that the loading dose did not affect the vital organs of the rats or their survival rate. This Chinese green tea extract can be used to achieve the expected therapeutic benefits without any adverse effects.

Keywords: Green tea extract, Extraction, Toxicology, Liver Injury, Adverse effect.

HS-56

Determinants of Smoking Initiation and Cessation in Populations with a Heavy Smoking History: A Conceptual Framework

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Abstract

This paper presents a conceptual framework for understanding the determinants of smoking initiation and cessation among populations with a heavy smoking history. Smoking remains a significant global health concern, with adverse impacts on respiratory health and overall well-being. The proposed framework integrates socio-demographic factors, such as age, gender, education, and socioeconomic status, with knowledge of respiratory diseases and awareness of pulmonary function risks to identify key drivers of smoking behaviors. It emphasizes how these determinants interact to influence the initiation of smoking, sustain smoking habits, and affect the likelihood of cessation. The framework also addresses critical barriers to cessation, including health literacy gaps, cultural influences, and access to healthcare services, particularly in populations with long-term smoking habits. By highlighting the role of awareness about respiratory health risks, such as chronic obstructive pulmonary disease (COPD) and lung cancer, the study underscores the importance of targeted interventions and education campaigns in promoting cessation and preventing initiation. This conceptual model provides a foundation for designing evidence-based strategies that enhance smoking prevention and cessation programs. It aims to guide public health initiatives and inform policy decisions by offering insights into the multifaceted nature of smoking behavior. The framework serves as a starting point for future empirical research, with the ultimate goal of reducing the burden of smoking-related diseases and improving health outcomes in vulnerable populations.

Keywords: Smoking Initiation, Smoking Cessation, Socio-Demographic Factors, Pulmonary Function Risks

HS-57

Exploring the Relationship Between Job Autonomy and Stress Among Staff Nurses: A Systematic Review

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Abstract

Autonomy permits nurses to manage their workload, make significant decisions, and change their time frames, enhancing job fulfillment and mitigating burnout. On the contrary, limited autonomy has been linked with increased stress, decreased job performance, and frustration. Job autonomy plays a significant role in reducing stress among healthcare practitioners, particularly nurses. Healthcare organizations must execute policies that support autonomy via a versatile work arrangement, participative decision-making, and professional growth opportunities.

The study explored the relationship between job autonomy and stress among nurses. Synthesizing reputable papers and systematic reviews was the foundation for the study's design. Papers were identified from three databases and searched in English from 2015 to 2025. Studies selected for the study met the eligibility criteria comprising articles focusing on all nursing cadres within healthcare settings. These articles evaluated the relationship between job autonomy and stress among nurses, studies highlighted the different job autonomy levels and their effect on stress and job satisfaction, studies evaluating job stress, burnout, job fulfillment, work performance, and nurse retention, and articles published in English within the last 10 years.

Several topics emerged following a thematic analysis. Among the topics covered were the impact of job autonomy on stress levels among staff nurses, the main factors impacting job autonomy in the nursing profession, and the effects of limited job autonomy on nurses, job fulfillment, performance, and wellness. The association between job autonomy and stress among staff nurses is a crucial area of concern within the healthcare sector. Restricted job autonomy impacts nurses' job satisfaction, performance, and wellness and devastates patient care and organizational efficiency. Limited autonomy regularly results in elevated stress levels, higher rates of resignation and burnout, and low quality of healthcare services. To counter these problems, healthcare institutions must execute strategies that improve job autonomy.

Keywords: Job autonomy; Stress, Nurses; Psychological Well-Being; Job Fulfillment.

HS-58

The Influence of Workload, Job Satisfaction, and Work Environment on Nursing Job Dropout: A Conceptual Framework

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Abstract

High nursing dropout rates remain a critical challenge for healthcare systems globally, impacting the quality and continuity of patient care. Many studies explore the theoretical model framework linking workload, job satisfaction, and the work environment to nursing job dropout, however, the linking of policymakers and stakeholders were not well explored. This proposed framework examines how excessive workload, job dissatisfaction, and unfavorable work environments contribute to nurses' decisions to leave their profession. It also highlights the interplay between these factors and their cumulative impact on nurses' physical and emotional well-being. Drawing on established theories of occupational stress and organizational behavior, the framework identifies key pathways through which workload intensity, lack of job satisfaction, and inadequate workplace support lead to burnout and eventual dropout. The model emphasizes the need for systemic interventions, such as workload redistribution, enhancement of job satisfaction through recognition and career development opportunities, and the creation of a supportive and inclusive work environment. This study provides insights for healthcare administrators, policymakers, and researchers to address the underlying causes of nursing attrition. By focusing on organizational and policy-level solutions, the framework aims to reduce turnover rates, improve workforce stability, and ultimately enhance the quality of healthcare delivery. Future research directions and practical implications are discussed to support the development of targeted strategies for nurse retention.

Keywords: Nursing Job Dropout, Workload, Job Satisfaction, Work Environment

HS-59

Association Between Work-related Stress and Turnover Intention Among Nurses: A Systematic Review

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Abstract

Stress at work and nurses' intentions to leave are important factors. Stress at work can lead to illness and even accidents. It is important to remember that turnover can occur either voluntarily or involuntarily. Stress at work can negatively affect a person's health and quality of life, and nursing is perceived as challenging. An individual's productivity and physical and mental health may suffer from work-related stress, contributing to increased stress levels. The study aimed to determine whether work-related stress and nurses' intentions to leave their jobs were associated. The study's design was based on synthesizing high-quality publications and systematic reviews. Papers were identified from three databases and searched in English from 2015 to 2025. Studies selected for the study met the eligibility criteria comprising articles that described work-related stress, burnout, emotional distress, and occupational stress and articles that evaluated turnover intention, Lack of job fulfillment or factors impacting nurse attrition. Several topics emerged following a thematic analysis. Among the topics covered were the main reasons nurses experience stress at work, how this influences their desire to leave, methods for lowering stress at work, and nurses' plans to leave. The primary causes of work-related stress among nurses were workload, prolonged shifts, strained relationships with coworkers, a lack of professional skills, and inadequate preparation and support to handle the mental health requirements of patients and their families. It was also noted that work-related stress decreased work resilience, burnout and emotional distress, resulting in turnover intentions among nurses. Strategies to mitigate work-related stress include mitigating workload, providing psychological counseling for nurses, and availing stress management training for less experienced nurses. According to the study, work-related stress was linked to nurses' intentions to quit, and essential steps must be taken to reduce nurses' intentions to quit. In order to reduce emotional and physical discomfort, the study suggested that healthcare institutions offer flexible schedules, ensure proper nurse-to-patient ratios, and disperse work. To help them deal with obstacles in the workplace more effectively, it is necessary to train their employees primarily nurses in coping mechanisms and stress management techniques.

Keywords: Work-related stress, nurse turnover intentions, burnout, job satisfaction, and stress management strategies.

HS-60

Impact of Work Environment on Job Fulfillment Among Nurses: Systemic Reviews

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Abstract

A working environment is a collection of circumstances under which an organization conducts its day-to-day activities comprising social, psychological, and physical variables. Additionally, job fulfillment is a term used to describe the satisfaction and gratitude a person derives from their job. Therefore, staff who attain fulfillment with their environment are more likely to have a positive output. The study aims to evaluate the impact of the work environment on job fulfillment among nurses.

The review will synthesize results from peer-reviewed studies enumerating the positive and negative workplace conditions that impact nurses' retention, motivation, and quality of patient care. An exhaustive search will be conducted across various databases, including Google Scholar, PubMed, and ScienceDirect, focusing on English-language articles. The Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) will be followed when organizing thematic synthesis and systemic review. The PICO (Population, Intervention, Context, Outcome) approach will be utilized to clarify the reviewed topic.

Studies have indicated that adequate staffing, supportive leadership, and a positive organizational culture boost job fulfillment. On the other hand, limited resources, increased stress levels, and poor management result in burnout and lack of satisfaction. The findings from the study will illustrate the need for healthcare policymakers and administrators to promote a supportive work environment that fosters job satisfaction, with the end goal of promoting healthcare outcomes.

Keywords: Work Environment; Job Fulfillment; Systematic Reviews; Nurses.

HS-61

Person-Centered Care Demonstrated by Critical Care Nurses and its Impact on Patient Satisfaction: A Scoping Review

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Abstract

Background: Person-centered care is a fundamental approach in healthcare that emphasizes individualized treatment by considering the unique needs, values, and preferences of patients. In critical care settings, where patients often experience high levels of vulnerability, person-centered care plays a crucial role in ensuring quality healthcare delivery.

Objectives:

This scoping review aims to explore the role of person-centered care as demonstrated by critical care nurses and its direct influence on patient satisfaction.

Method: A systematic scoping review was conducted using peer-reviewed articles from reputable databases such as PubMed, CINAHL, and Scopus. Studies included in this review focused on critical care nurses' implementation of person-centered care and its effects on patient satisfaction. The selection criteria emphasized research published within the last ten years to ensure relevance to current healthcare practices. Data were extracted and analyzed to identify recurring themes related to nurse-patient interaction, communication strategies, emotional support, and shared decision-making.

Results and Findings: Findings from the reviewed literature suggest that person-centered care significantly enhances patient satisfaction in critical care settings. Effective communication, emotional support, and active patient involvement in decision-making were identified as key contributors to higher patient satisfaction. Studies also revealed that critical care nurses who consistently practiced person-centered care helped reduce patient anxiety, build trust, and improve overall healthcare experiences. However, several barriers, including heavy workloads, time constraints, and institutional limitations, were identified as challenges to the full implementation of person-centered care. Additionally, there was limited research examining the long-term impact of person-centered care on patient recovery and clinical outcomes.

Conclusion: Person-centered care, as demonstrated by critical care nurses, plays a vital role in enhancing patient satisfaction by fostering a supportive, communicative, and empathetic healthcare environment.

Keywords: Person-Centered Care; Critical Care Nurses; Patient Satisfaction.

HS-62

Primary Health Nurses Preparedness for Biological Disaster Management

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Abstract

Backgrounds: Biological disasters, which include pandemics, epidemics, and bioterrorism incidents, have been increasingly recognized as significant threats to global public health due to their rapid spread, high morbidity, and complex healthcare demands. These disasters often require immediate, coordinated responses from healthcare systems, with primary healthcare (PHC) facilities positioned at the frontline. Nurses working in these settings are essential responders, responsible for both preventive and acute care measures, making their preparedness vital to minimizing the impacts of biological threats on communities.

Purposes: The primary objective of this study is to assess the preparedness of primary healthcare (PHC) nurses for managing biological disasters, focusing on their current competencies, training needs, resource availability, and psychological resilience.

Methods: The study will utilize a descriptive cross-sectional design. The study will use a stratified random sampling technique with 200 nurses who work in primary health centers in both urban and rural healthcare settings. A structured questionnaire will be used to assess primary health nurses' preparedness for biological disaster management. The study will obtain ethical approval from the University of Lincoln and affiliated primary health centers. Data analysis will be conducted using the SPSS program and appropriate statistical tests to analyze the research questions.

Conclusions: Primary health care nurses as frontline responders during biological disasters. Their roles encompass infection control, patient triage, emergency response, and public health communication, making their preparedness essential for effective disaster management. The moderating effects of factors such as geographic location (urban versus rural settings) and prior disaster experience on nurses' preparedness levels, providing insight into how contextual variables influence readiness

Keywords: Primary Health Nurses, Preparedness, Biological Disaster, Management

HS-63

Innovations in Pediatric Care: The Impact of Technology-Based Atraumatic Practice in Hospital: Literature Review

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Abstract

Background: Recent technological developments and a greater focus on atraumatic care have led to substantial changes in pediatric care. Technology-based atraumatic care focuses on reducing the physical and psychological burden experienced by pediatric patients and their families.

Objective: to explore and review the innovations in Pediatric Care especially the impact of technology-based atraumatic practice in Hospitals.

Methods: Prefered Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) scheme used in this study. Electronic databases are as follows Google Scholar, PubMed, Scopus, DOAJ, Eric. The PICO format used in the literature search process includes terminology"Pediatric Patient", "Children", "Technology-Based by Atraumatic Practices", "Reduce Anxiety", "Comfort","Reduce Stress".

Results: it was found that there were around 776 research journals related to the theme. There are 10 articles reviewed by the author There are Audiovisual, Virtual reality is an effective technology that can be applied in hospitals in the context of treating hospitalized children in order to reduce the pain scale. Technology improvements in social connectivity, social inclusion, and well-being. The use of technology in the application of atraumatic care can shorten the length of stay for children and children feel comfortable during the process of using technology.

Conclusion: The integration of technology-based atraumatic hones in country pediatric care speaks to a transformative move toward upgrading understanding of results and availability. Pediatric care has been revolutionized by technology-based atraumatic practices, which lessen the trauma, anxiety, and discomfort that come with medical procedures. Robotics, smart devices, telehealth, and virtual reality, present intriguing ways to improve children's hospital stays.

Keywords: Technology; Atraumatic Care; Hospitalized Children.

HS-64

Exploring Maternity Healthcare Providers' Perspectives on Maternal Upright Positions During Second Stage of Labor: Qualitative Study

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Abstract

Background: The birth of the baby is an exceptional experience for the mother and the whole family. It is crucial that women's opinions during maternity care are valued, especially during labor or childbirth, is a crucial factor in providing respectful maternity care.

Aims: This study aims to identify barriers to adapting an upright position during the second stage of labor in Madinah and what are the strategies necessary to overcome these barriers.

Methods: A qualitative study was performed at Maternity and Children Hospital, Madinah (MMCH), Saudi Arabia, The study sample consisted of a non-probability convenience sampling of 18 healthcare clinicians. Data collection was done through face-to-face semi-structured interviews with the consenting healthcare providers.

Results: The following core themes emerged: policy, the safest way, doctors setting rules, midwives' hesitancy to assume responsibility, uncooperative, uninformed women, and the way forward. **Conclusion**: This study concludes that irrespective of all the evidence supporting the upright position in the second stage of labor, many healthcare providers continue to practice the lithotomy position in accordance with cultural and routine norms. Many healthcare providers prefer the lithotomy position for their own convenience, disregarding other birth positions as well as the women's preferences and desires.

Keywords: Upright Position; Health Care Providers; Second Stage Oflabor; Qualitative

HS-65

Effective Leadership Style, Nurses' Satisfaction, and Intention to Stay Toward Achieving Quality Improvement: Conceptual Framework

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Abstract

Effective leadership styles play a crucial role in enhancing nurses' job satisfaction and retention, ultimately contributing to workforce sustainability and quality improvement in healthcare settings. This study explores the impact of various nursing leadership styles—charismatic, transformational, autocratic, democratic, transactional, strategic, and authentic—on nurses' satisfaction and their intention to stay within healthcare organizations. By examining how these leadership styles influence job satisfaction, work environment perception, professional development opportunities, and organizational recognition, this research provides a conceptual framework that connects leadership effectiveness with workforce sustainability. The study employs a literature review approach, integrating a comprehensive analysis of leadership impact on nursing workforce stability.

Findings from this study are expected to provide valuable insights for healthcare administrators and policymakers in developing leadership training programs that foster a supportive and engaging work environment. By aligning leadership strategies with workforce sustainability goals, healthcare institutions can enhance job satisfaction, reduce turnover, and improve overall patient care quality. The proposed conceptual framework serves as a guide for future studies on leadership effectiveness in nursing, offering a strategic approach to strengthening the nursing workforce and promoting long-term organizational stability.

Keywords: Leadership, conceptual framework, quality improvement, intention to stay

HS-66

Pressure Injury Prevention for Staff Nurses and its Impact on Quality of Nursing Service: A Scoping Review

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Abstract

Background: Pressure injuries remain a significant challenge in healthcare settings, affecting patient outcomes and increasing healthcare costs. Effective prevention strategies led by staff nurses are critical to enhancing the quality of nursing services and reducing the incidence of pressure injuries.

Objective: This systematic review aims to evaluate the effectiveness of pressure injury prevention programs for staff nurses and their impact on the quality of nursing service.

Methods: A systematic search of peer-reviewed literature was conducted across major databases, including PubMed, CINAHL, and Scopus. Studies published within the last ten years were included, focusing on nurse-led pressure injury prevention interventions, education programs, and their outcomes. Data were synthesized thematically to assess the impact on patient outcomes, nurse knowledge, adherence to guidelines, and overall nursing service quality.

Results: The review identified that structured educational programs, adherence to evidence-based guidelines, and multidisciplinary collaboration significantly reduced the incidence of pressure injuries. Nurse-led interventions, such as early risk assessment using standardized tools, frequent repositioning protocols, and skin integrity monitoring, were associated with improved patient outcomes. Additionally, facilities implementing comprehensive prevention strategies reported higher nursing service quality, including better patient satisfaction, reduced hospital-acquired pressure injury rates, and increased nursing confidence in managing at-risk patients.

Conclusion: Pressure injury prevention programs tailored for staff nurses play a pivotal role in enhancing nursing service quality. Effective implementation of training, adherence to best practices, and institutional support contribute to a marked reduction in pressure injuries and improved patient care. Future research should focus on long-term sustainability and the integration of technology into prevention strategies.

HS-67

Quality of Nursing Work Life among Hospital Nurses in Saudi Arabia: A Cross-Sectional Study

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Abstract

Aim

This study measures the levels of QNWL and determines the relationship between QNWL and nurses' personal, family, and work shift factors.

Background

The nursing profession in Saudi Arabia (SA) is diverse, with many challenges during nursing practice. Therefore, examining QNWL is important for managers because it has become an essential subject in current nursing practice.

Methods

A quantitative approach utilizing a cross-sectional design with 400 nurses recruited randomly through a multistage cluster sampling plan.

Results

The overall level of quality of nursing working life among nurses was moderate (mean = 165; SD = 26.8). Bivariate analysis showed that non-Saudi nationality, higher age, more work experience, married status, full-time employment, rotating shift, and specialty units were the significant factors contributing to higher QNWL scores ($p < .05$).

Conclusions

The study provides an initial understanding of the quality of work life among nurses working in the Madinah region. It reveals a moderate level of QNWL and a significant association between personal, family, and work shift variables and QNWL.

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Impact of Nurse Leadership Style and Wellbeing among Nurses in Saudi Arabia: A Systematic Review

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Abstract

Objectives: This systematic review examines how nurse leaders' leadership styles affect Saudi healthcare nurses' job happiness and well-being. It will also examine how leadership style affects nurse burnout, emotional distress, and stress, and whether well-being decline varies by nationality.

Methods: The study objectives were met by a PRISMA-compliant systematic review. English papers published between January 2000 and December 2024 were found in PubMed, Medline, Google Scholar, and PsychINFO. Boolean operators "AND" and "OR" combined search phrases "nursing leadership," "nursing job satisfaction," "wellbeing," and "leadership style." The search targeted Saudi nurses.

Results: This review uniquely gathers literature on Saudi nursing supervisor management styles and staff well-being. Leadership is essential to creating a supportive atmosphere through professional growth and lifetime learning. Analysis shows that transformational leadership improves organizational outcomes by building trust, motivation, belonging, and collaboration. Despite not improving job satisfaction or stress, transactional leadership helps complete tasks. Laissez-faire management always causes job unhappiness and burnout. The review covers the research gap on leadership's effects on job satisfaction, well-being, burnout, and workplace bullying.

Conclusion: Positive working circumstances, nurse well-being, and turnover reduction require effective leadership. Nurse leader performance impacts patient and worker outcomes. Complex healthcare contexts require flexible leadership. Self-awareness, performance evaluation, and workplace aspects promote employee well-being. Leaders should emphasize relationships and assistance. To raise knowledge of how leadership styles affect staff well-being, all organizational levels need targeted, evidence-based leadership training.

Keywords: Nursing Leadership; Job Satisfaction; Nurse Well-being; Burnout and Stress; Transformational Leadership.

HS-69

The Effectiveness of Reality Counseling Model with Wants, Doing, Evaluation, and Planning (Wdep) Approach on Readiness to Provide Exclusive Breastfeeding to Pregnant Women and Families in the Working Area of Air Dingin Health Center, Padang, Indonesia

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Abstract

Introduction: Exclusive breastfeeding (EBF) is the provision of breast milk without additional food or drink until the baby is 6 months old. EBF is still low globally, only around 48% of total breast milk, while in Indonesia it is only 68.6%. EBF provides sufficient nutrition for growth and development and protects babies from disease. The Indonesian government has launched a counseling program for pregnant women to promote EBF, but its effectiveness is limited due to a lack of family support, especially from husbands, a reality counseling model with the Wants, Doing, Evaluation, Planning (WDEP) approach involving the family is expected to increase its effectiveness.

Objective: This study aims to evaluate the effectiveness of the WDEP approach on the readiness of pregnant women to provide EBF.

Method: Quasi-experimental research design of the treatment group that received reality counseling with the WDEP approach and the control group without intervention. This study was conducted at the Air Dingin Indonesia Health Center from December 2024 to February 2025, with a sample of 50 third-trimester pregnant women and their families. Data analysis used an independent t-test to compare the average level of readiness of pregnant women between the group that received the WDEP reality counseling approach and the control group without intervention.

Results: There was no significant difference between the treatment group and the control group in terms of knowledge, attitudes, and skills before the intervention ($p = 0.34; 0.63; 0.89$). Post-intervention, the treatment group showed significant improvements in all three aspects ($p < 0.05$). WDEP reality therapy counseling approach is effective in improving breastfeeding readiness. At the Want stage, mothers identify goals such as providing exclusive breastfeeding. The Doing stage helps reflect on behaviors that support or hinder goals, in the Evaluation stage, mothers assess the alignment between goals and behavior, the planning stage makes concrete strategies by involving the family, overcoming challenges, and strengthening commitment. Family support during the session increases the readiness of mothers to provide exclusive breastfeeding.

Conclusion: Reality counseling with the WDEP approach is effective in increasing breastfeeding readiness in pregnant women and families compared to the control group.Keywords: Exclusive breastfeeding; reality counseling; WDEP

Keywords: Exclusive breastfeeding, reality counseling, WDEP

HS-70

Effectiveness of Rifampicin-Resistant Tuberculosis (RR-TB) Treatment Based on Xpert MTB/RIF Examination Results at the West Sumatra Lung Hospital, Indonesia

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Abstract

Introduction: Drug resistance in tuberculosis (DR-TB) remains a significant global public health problem and a threat to TB control. Globally, in 2019, an estimated 3.3 % of new TB cases and 17.7% of previously treated cases were drug-resistant. In the same year, of the estimated 9.96 million TB cases, 465,000 were MDR-TB/RR-TB. However, only 206,030 of the estimated DR-TB patients were detected, and 177,099 (86%) received treatment, with a global treatment success rate of 57%.
Objective: This study aims to evaluate the effectiveness of rifampicin-resistant tuberculosis (RR-TB) treatment based on the results of the Xpert MTB/RIF examination.
Methods: This study design used a retrospective cohort study conducted to evaluate the effectiveness of RR-TB treatment at the West Sumatra Lung Hospital (2020-2022), with a sample of 107 Xpert MTB/RIF positive pulmonary TB patients whose data were taken from e-TB Manager medical records.
Results: Based on the results of the Xpert MTB/RIF examination at the West Sumatra Lung Hospital, the effectiveness of Rifampicin-Resistant Tuberculosis (TB-RR) treatment is quite good. Of the total 107 patients treated, the success rate of treatment reached 70.1 %, indicating that most patients recovered after undergoing therapy. This success was supported by the use of bedaquiline therapy in accordance with the TB RO Treatment Guidelines, which is an important component in the treatment of drug-resistant TB, as well as the existence of an immediate case-finding program (PeKaRa TB) which allows for faster diagnosis and treatment.
Conclusion: Treatment of TB-RR at the West Sumatra Lung Hospital showed positive results, supported by innovative programs and modern therapies such as bedaquiline. However, improving outcomes requires more attention to patient compliance and comorbidity management.

Keywords: " Treatment Effectiveness; Rifampicin-Resistant Tuberculosis (RR-TB); Xpert MTB/RIF "

HS-71

Increasing the Level of Independence of the Elderly by Implementing the Health Belief Model (HBM) Psychoeducation in the Elderly in Work Area of Belimbing Community Health Center in Padang City, Indonesia

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Abstract

Introduction: This study aims to assess the effect of psychoeducation based on the Health Belief Model (HBM) on the level of independence among elderly individuals in the Belimbing Community Health Center, located in Padang City, Indonesia. As the elderly population continues to grow, maintaining independence becomes a critical factor in ensuring their quality of life. Psychoeducation grounded in the Health Belief Model, which addresses individuals' perceptions of health risks, benefits, and barriers, has been proposed as an effective intervention to enhance self-efficacy and promote health-related behaviors among the elderly.

Objective: This research aims to see an improved level of independence elderly through the implementation Health Belief Model psychoeducation.

Method: This study uses experiments with a one-group pretest-posttest design involving 20 elderly people to be given a psychoeducational program for 2 weeks. After the intervention, it was carried out measurement repeat to see a change level of independence. Data analysis was carried out with the paired t-test because the data was normally distributed. Research This expectation can show the effectiveness of HBM psychoeducation in increasing the independence elderly.

Results: Data were collected before and after the intervention using a range of assessment tools which measured participants' ability to perform basic self-care tasks independently. The results demonstrated a significant improvement in the level of independence post-intervention. The correlation between psychoeducation and independence increased from a moderate 0.401 ($p = 0.015$) before the intervention to a strong 0.600 ($p < 0.001$) after the intervention. This finding suggests that psychoeducation based on the Health Belief Model can effectively enhance elderly independence by fostering a greater sense of autonomy, promoting healthier behaviors, and reducing dependence on others.

Conclusion: These findings underscore the importance of psychoeducation in community health settings, particularly for elderly populations. By addressing health beliefs and providing targeted interventions, this study provides evidence that HBM-based psychoeducation can be an effective strategy for improving the functional independence and overall well-being of elderly individuals. The study contributes valuable insights for policymakers and health practitioners in designing programs that enhance elderly autonomy, particularly in resource-limited settings like Padang City, Indonesia.

Keywords: Health Belief Model; Psychoeducation; Elderly Independence; Katz Index; Community Health; Padang City; Indonesia.

HS-72

The Effect of Implementing Efforts to Prevent Stunting in Children with a History of Giving Breast Milk

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Abstract

Stunting is a growth disorder in children whose height is lower or shorter (stunt) than the age allowed. Stunting occurs when a newborn baby experiences malnutrition, even since in the womb. Stunting is a public health problem associated with an increased risk of morbidity, and mortality. The purpose of this study was to determine the impact of Implementing Stunting Prevention Efforts in Children with a History of Breastfeeding. The method used in this literature review was to search for several articles through Pubmed, Proquest, Scopus, and Google Scholar. Clinical trials published in English and Indonesian to evaluate the impact of stunting on children. Results: A total of 8 studies have been conducted on Stunting Prevention Efforts in Children with a History of Breastfeeding. This systematic review is the first to show that reducing stunting cases requires the involvement of health workers and trained cadres, as well as cooperation from target groups. One important effort in preventing stunting is empowering the community, especially parents, by emphasizing knowledge and information about providing breast milk and complementary foods to their babies. This writing uses a literature study method starting with an analysis of the phenomenon of Stunting in Children with a History of Breastfeeding and then synthesizing. The database used in compiling this literature study uses several articles obtained from searches of Pubmed, Proquest, Scopus, and Google Scholar with the search keywords for articles using the words Stunting Prevention, Children, and Breastfeeding History from 2019 to 2023.

Keywords: Prevention; Stunting; Children; Breastfeeding History.

HS-73

The Influence of Preoperative Anxiety on Perioperative Hemodynamics: Literature Review

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Abstract

Introduction: The anxiety felt by patients who are about to undergo surgery is a common occurrence; anxiety can have an impact on patients during the perioperative period. This literature review aims to analyze the effect of anxiety experienced by patients during the pre-operative period on their hemodynamic condition during the intra-operative and post-operative periods.

Method: This study is a Systematic Literature Review. A systematic literature search was conducted by using Searching online databases like Google Scholar, PubMed, and ScienceDirect with keywords" preoperative anxiety, perioperative hemodynamics, and surgical "outcomes". The search strategy is using the 7-step PRISMA framework. Inclusion criteria included Journal articles with quantitative research designs that were published between 2020 and 2025 and talked about how anxiety before surgery affects changes in blood pressure, pulse rate, respiratory rate, and oxygen saturation that happen during surgery.

Results: We found a strong correlation with hemodynamic fluctuations during the perioperative period. High levels of anxiety significantly affect blood pressure, heart rate, and respiratory rate, with other factors influencing patients' anxiety levels being gender, ASA classification, surgical history, type of anesthesia used, and the operating room environment. Preoperative anxiety management strategies are necessary to stabilize the preoperative stress response. The next finding is that increased anxiety contributes to greater physiological instability, affecting blood pressure, heart rate, and overall surgical outcomes. Addressing preoperative anxiety proactively can result in a smooth surgical experience, better recovery, and overall improved patient well-being, which will contribute to better clinical outcomes and optimal perioperative management.

Conclusion: Preoperative anxiety affects changes in patients' hemodynamics during intra-anesthesia.

Keywords: Preoperative Anxiety; Hemodynamic.

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Analysis of Antioxidant Levels in West Sumatera Gambier (*Uncaria Gambier* Roxb) in Improving Reproductive Health for Smokers

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Abstract

Background: Gambier contains active compounds such as catechins that have antioxidant properties and have the potential to protect reproductive cells from oxidative damage due to lifestyle factors, such as smoking. Smokers are known to experience high oxidative stress due to exposure to harmful substances (nicotine) in cigarettes, which has a negative impact on reproductive function. Variations in the antioxidant content of gambier can be influenced by the extraction and production process, so an accurate analysis is needed to determine the antioxidant content.

Objective: This study aims to analyze the potential of antioxidant content in gambier from West Sumatra, Indonesia that can reduce oxidative stress for smokers.

Methods: Gambier was collected from three different locations in West Sumatra, Gambier Halaban, Gambier Mungka, and Gambier Pesisir Selatan. Antioxidant activity analysis was conducted on gambier extract with ethanol 96% and on gambier products using the DPPH (2,2-diphenyl-1-picrylhydrazy) method with 0.2 mM concentration. This research was conducted using a quantitative descriptive method.

Results: Analysis of antioxidant levels showed that the very strong antioxidant levels in gambier extracts were those derived from Halaban Gambier extract with an average value of 6.99 ± 0.01, while the very strong antioxidant levels in gambier products were those derived from Mungka with an average value of 3.75 ± 0.01. This significant difference indicates that antioxidants in gambier extracts and gambier products vary depending on the extraction process and the process of gambier production itself.

Conclusion: The difference in geographical origin of Gambier, both from lowland areas such as Pesisir Selatan and highland areas such as Mungka, does not have a significant impact on antioxidant levels. Factors that affect the antioxidant content in gambir extract and gambir products include the extraction process or the process of making the gambir product itself.

Keywords: Antioxidant; Gambier; DPPH.

HS-75

Effectiveness of the Islamic Spiritual Care to Control Stress and Improve Spiritual Life among Patients with Chronic Diseases: A Systematic Literature Review

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Abstract

Challenges faced by chronic disease patients in Indonesia, especially in terms of mental health, economic burden, and limited health services. Integration of Islamic spiritual care, such as dhikr and reading the Qur'an, shows therapeutic potential in reducing stress and improving the psychological well-being of patients. This study used the Systematic Literature Review (SLR) method with PRISMA guidelines to assess the effectiveness of Islamic spiritual care in reducing stress and improving the quality of life of chronic disease patients. Articles obtained from reputable databases were evaluated using critical appraisal tools to ensure their validity. Data were analyzed using a narrative synthesis approach to identify trends and factors that influence the effectiveness of interventions, with the possibility of descriptive meta-analysis to strengthen the findings. The findings of this study were that Islamic spiritual care was effective in reducing stress, anxiety, and pain and improving the quality of life of patients with chronic diseases. Integration of this approach into health services has the potential to improve patient well-being.

Keywords: Islamic Spiritual Care; Stress Management; Chronic Diseases; Quality of Life.

HS-76

Quality of Life Management of Type II Diabetes Mellitus Patients

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Abstract

Diabetes is a disease that occurs in many Southeast Asians, including Indonesia. This disease is caused by high blood sugar levels that can cause serious complications if not treated properly. Therefore, it is important for people to pay attention to a healthy diet and exercise regularly to prevent diabetes. In addition, stress management and regular health checkups can also help reduce the risk of developing this disease.

Several studies of diabetes mellitus have shown that there is a significant association between blood sugar levels and the risk of heart disease. The study also found that patients with uncontrolled diabetes mellitus had a higher risk of having a heart attack than patients whose blood sugar was well controlled. This shows the importance of controlling blood sugar levels in preventing complications of heart disease in people with diabetes mellitus. Thus, good monitoring and management of blood sugar is an important step in the management of diabetes mellitus to reduce the risk of heart disease. The aim of the study was to improve understanding of the relationship between blood sugar levels and the risk of heart disease in patients with diabetes mellitus and to provide information that can help in the management of the disease more effectively. The results of this study are expected to be used as a basis for developing more effective prevention strategies in treating heart disease in patients with diabetes mellitus. Thus, it is hoped that it can improve the quality of life and life expectancy of patients with diabetes mellitus and reduce the burden of heart disease in society as a whole.

The research methods used in this study include the population of type II diabetics, the number of respondents 80 people, the collection of data on blood sugar levels of patients with diabetes mellitus, the techniques used by purposive sampling and statistical analysis to determine the relationship between blood sugar levels and the risk of heart disease, as well as surveys to obtain information about the management of this disease. In addition, the study also involves collaboration with medical teams and health experts to ensure the validity and relevance of the research results. The results of this study are expected to provide deeper insight into the relationship between diabetes mellitus and heart disease and provide recommendations that can help improve the quality of life of diabetes mellitus patients. Thus, it is hoped that it can raise awareness of the importance of holistically managing diabetes mellitus to prevent the risk of heart disease and improve overall public health. In addition, this research is also expected to provide a basis for the development of more effective health interventions and programs in addressing both conditions.

Keywords: Quality of Life; Diabetes Mellitus; Management.

HS-77

Effectiveness of Family Planning Implementation in Reducing Pregnancy and Birth Rates in Couples of Fertile Age Literature Review

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Abstract

In order to control population quantity, the National Population and Family Planning Agency has made a number of efforts to restrain the rate of population growth in Indonesia. Family planning is a movement to form a healthy and prosperous family by limiting births. The policy on family planning is stated in Law No. 52 of 2009 concerning population development and family development, stating that in realizing balanced population growth and quality families, efforts are made to control the birth rate, so that the population becomes a strong human resource for national development and resilience. The purpose of this study was to determine the effectiveness of the implementation of family planning in reducing pregnancy and birth rates in fertile couples literature review. The method used in this literature review is to search for several articles through Pubmed, ProQuest, Scopus, and Google Scholar. Clinical trials published in English and Indonesian to evaluate birth control. Results: as many as 8 studies have been conducted showing that the level of knowledge of Family Planning in fertile couples is relatively low. Family Planning counseling has a significant effect on increasing the knowledge of fertile couples about Family Planning. The database used in compiling this literature study uses several articles obtained from Pubmed, Proquest, Scopus, and Google Scholar with the search keywords for articles using family planning, fertile couples, knowledge, and education from 2019 to 2023.

Keywords: Family Planning; Fertile Couple; Knowledge; Education.

HS-78

Risk Factors Associated with the Incidence of Preeclampsia in Pregnant Women at Padang Pasir Community Health Center, Padang City

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Abstract

Preeclampsia is the leading cause of maternal mortality in Indonesia and even worldwide, especially in developing countries. Globally, preeclampsia is responsible for 76,000 maternal deaths and 500,000 infant deaths each year, and it is the second leading cause of death among mothers (Demissie et al., 2022). For that reason, the researchers are interested in identifying the risk factors associated with preeclampsia.

This research is a quantitative study with a retrospective approach and cross-sectional design. The population of this study is pregnant women in the working area of Puskesmas Padang Pasir from December 2023 to July 2024. The sample size was 127 respondents. The sampling technique is consecutive sampling. Data analysis was conducted univariately and bivariately using the Chi Square test.

Research findings reveal that 70.1% of pregnant women are in a state of preeclampsia. Risk factors associated with preeclampsia indicate that among pregnant women with preeclampsia, 59.8% are pregnant at a risky age, 51.9% are working mothers, 66.9% have a history of preeclampsia, 84.3% have a history of chronic hypertension, 15% have a history of gestational diabetes, 11.8% have a history of twin pregnancies, and 71.05% are pregnant with anemia. The results of the bivariate analysis found that statistically, there is a significant relationship between age, work history, history of preeclampsia, history of chronic hypertension, and anemia with the incidence of preeclampsia.

This study shows that the risk factors associated with the occurrence of preeclampsia are age, work history, history of preeclampsia, history of chronic hypertension and anemia.

Keywords: Preeclampsia; Age; Employment; Chronic Hypertension; Gestational Diabetes; Gameli.

HS-79

The Importance of Social Support to Parenting Self-Efficacy in Mothers of Children with Autism

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Abstract

Background: Autism spectrum disorder (ASD) is a set of heterogeneous neurodevelopmental conditions characterized by early-onset difficulties in social communication and unusually restricted, repetitive behaviors and interests. Parents of children with autism, especially mothers, experience more parental stress compared to mothers of typical children. However, with the family's and social support, parents can finally adjust and accept the children with special needs.

Objective: The aim of this research was to discuss the relationship between social support and perceived self-efficacy in mothers of children with autism.

Method: This study is a cross-sectional study conducted in Bengkulu, Indonesia. The sample size was 55 mothers who have autistic children in special schools for autism. The independent variable is social support. The dependent variable is self-efficacy. Data were collected using a questionnaire and analyzed using Chi-Square and Contingency Coefficient.

Results: Most of the parents have a moderate level of self-efficacy (62%) and the parents have a high level of self-efficacy (38%). The parents have good social support (52,4%), followed by the parents who have low social support (47,6%). There is a significant relationship between social support and parenting self-efficacy in mothers of children with autism ($p< 0.001$).

Conclusion: Social support is very important in increasing parenting self-efficacy in mothers caring for children with autism.

Keywords: Children with Autism; Mothers; Self Efficacy; Social Support.

HS-80

Assessing The Perceptions of Vertical Farming Adoption Among City People

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Abstract

Growing, preparing, and distributing food in or near urban settings is known as urban farming. It includes a range of techniques such as hydroponics, communal gardens, vertical farming, and rooftop gardening. There are a lot of differences in the acceptability and adoption of urban farming among city people in Libya, even with its possible advantages. The objective of this research is to study the perception of city people about urban farming, and their ability to perceive and adopt urban farming practices. The research design employed a mixed methods approach, incorporating both quantitative and qualitative methods. The population of the study consisted of 100 residents of Tripoli Libya. After the preliminary survey, the results showed that 80% of the respondents did not have vertical farming knowledge. Besides, they do not want to start urban farming and fear of risks. Hence, educational interventions to enhance knowledge and awareness of vertical farming were given to the 80 respondents to assess their willingness to adopt urban farming practices. There is a significantly higher response to adopt and practice urban farming in the intervention group compared to the control group. It can be concluded that vertical farming knowledge improves the urban people's confidence to start up the vertical farming system.

Keywords: Perception; Vertical Farming; Adoption Factors.

HS-81

Effectiveness of Mobile Applications in Enhancing Family Involvement for Early High-Risk Pregnancy Detection: A Systematic Review

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Abstract

Background: Pregnancy complications pose significant risks to maternal and fetal health, making early detection crucial for improving outcomes. Mobile applications have emerged as potential tools for enhancing maternal awareness and facilitating early detection of pregnancy complications. The detection of high-risk pregnancies is essential for reducing maternal and neonatal complications. M-Health applications have emerged as a promising tool to improve maternal health. The role of family involvement in using these digital interventions remains underexplored.

Objective: This systematic review evaluates the effectiveness of mobile applications in enhancing family involvement for the early detection of high-risk pregnancies.

Methods: A systematic search was conducted by PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyzes). Electronic databases used such as PubMed, Scopus, ScienceDirect, and IEEE Xplore, Cochrane Library, Google Scholar for studies published between 2021 and 2025. The PICO format was used in the literature search process. Inclusion criteria covered studies focusing on mobile pregnancy risk detection applications involving family participation; English Article. Data extraction focused on user engagement, health outcomes, and barriers to implementation.

Results: It was found that there were around 1,400 articles in research journals related to the theme. There are 7 articles reviewed. Through features like symptom tracking, risk assessment, and real-time communication, mobile applications greatly improve family engagement and early detection of high-risk pregnancies. These resources promoted improved family-provider cooperation, decreased maternal anxiety, and increased adherence to prenatal care.

Conclusion: The efficacy of mobile applications in increasing family involvement for early high-risk pregnancy diagnosis is assessed rigorously and transparently in this PRISMA investigation. Mobile health is an effective tool for enhancing family involvement and early detection in high-risk pregnancies. Policymakers and healthcare providers should consider integrating these technologies into antenatal care programs while addressing accessibility.

Keywords: M-Health; Pregnancy Risk Detection; Maternal Empowerment; Family Involvement; Antenatal Care.

HS-82

The Role Of Midwives In Reducing Anxiety In Women In The Maternity Process: A Literature Review

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Abstract

Introduction: Maternal anxiety during labor can have negative consequences, such as increased risk of complications in the form of preeclampsia and prolonged labor, higher incidence of cesarean section, and delayed onset of lactation.

Methods: the strategy used in this study was to use PRISMA analysis. The database used in this study used electronic disbursement, such as Pubmed, Google Scholar, and Scopus. In the literature search using the PICO method, namely with the terminology "laboring mothers", "Maternal anxiety in labor", "midwifery care" in mothers who "experience anxiety in the process of labor" and "Reducing Anxiety". The inclusion criteria that the authors use in the disbursement are 1. The role of midwives, 2. Reduction of anxiety in mothers in the process of childbirth, 3. Mothers who are in the process of giving birth 4. Journal articles and manuscripts. The exclusion criteria in this study are 1. Articles that are not in English, 2. Articles with a year limit of less than 2020.

Results: After the PRISMA scheme, there are 7 articles reviewed by the authors, then the researcher determined several themes to be discussed, namely the role of midwives, maternal anxiety in the process of labor, and stress management during labor. It is hoped that midwives can improve midwifery care for mothers who experience anxiety, early detection needs to be done to effectively identify anxiety. Some of the things that midwives can do to manage stress in mothers during the labor process are Strategies and Support for Overcoming Problems, Community and Family Support, the Impact of Education and Preparation, Emotional Dynamics and Childbirth Experience, the Role of Non-Pharmacological Techniques.

Conclusion: Midwives play a role in providing care during labor, early detection of anxiety is an indicator of appropriate treatment.

Keywords: Midwives; Maternity Care; Anxiety.

HS-83

A Digital Technology Platform for Hypertension Management in the Community: A Bibliometric Analysis

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Abstract

Background: Hypertension as a global problem can be controlled through community-based management supported by digital technology for real-time monitoring, patient education, and remote communication with medical personnel.

Objective: The aim of this study is to analyse the use of digital technology in community-based hypertension management and identify the effectiveness, benefits, and challenges of its implementation by analysing network visualisation, overlay visualisation, and density visualisation on topics through bibliometric analysis.

Methods: This study used bibliometric analysis with data obtained from dimensions. The articles analysed were published between 2021-2025 and came from the fields of Health Sciences, Health Services and Systems, Biomedical and Clinical Sciences, Information and Computing Sciences, Public Health, and Clinical and Nursing Sciences. The selection was based on inclusion criteria, namely peer-reviewed articles that discuss digital platforms, mobile health (mHealth), and telehealth in community-based hypertension management. The main keywords used in the search included digital health platform, mHealth application, telehealth platform, hypertension management, and community-based intervention. Data analysis was conducted using VOSviewer software to identify publication patterns, author collaboration, and keyword trends. Results were visualised in the form of network maps, density maps, and overlay visualisations to find research trends and gaps that have not been explored in the use of digital technologies for hypertension management in the community.

Results: This study examined the utilisation of digital technologies in community-based hypertension management. Mobile health (mHealth) applications and wearable devices enable self-monitoring of blood pressure, improve patient compliance, and provide health education. Telemedicine facilitates remote consultations, while cloud-based systems support efficient health data processing. AI technologies such as ChatGPT and chatbots aid initial consultations, while social media and community forums strengthen support to patients. SMS or USSD systems are effective for communities with limited access, and gamification applications increase patient motivation.

Conclusion: Digital technologies are improving community hypertension management, but challenges of integration, digital literacy, and data privacy need to be addressed.

Keywords*:* Community-Based Interventions; Digital Health Platforms; Hypertension Management; Mobile Health (mHealth) Applications; Telehealth Platforms.

HS-84

The Relationship Between Health Education and Adolescents' Knowledge about Reproductive Health and Sexually Transmitted Diseases at SMP N 5 Tandun Rokan Hulu District

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Abstract

Reproductive and sexual health are important issues in adolescent health. Adolescents in developing countries on average have their first sexual intercourse under the age of 13. This has an impact on 60% of unwanted pregnancy incidents. The World Health Organization (WHO, 2014) states that half of the global incidence of HIV infection occurs in the age group under 25 years. These statistics indicate that adolescents are at very high risk of sexually transmitted diseases due to unsafe sexual behavior, having abortions, and being infected with the Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) (Sulastri & Astitu, 2020). The purpose of the study was to determine the relationship between health education and adolescent knowledge about reproductive health and sexually transmitted diseases at SMP N 5 Tandun, Rokan Hulu Regency. Pre-experimental design used in this study was the One Group Pre-Post Test design, the sample in this study used the Total Sampling technique, namely the sampling criteria technique by making all populations as samples of 70 people, data analysis using paired t-test. The results of the study showed that the average value of adolescent knowledge before being given health education about reproductive health and sexually transmitted diseases at SMP N 5 Tandun, Rokan Hulu Regency was 10.14, standard deviation of 2.7 and a standard error of 0.323. The average value of adolescent knowledge after being given health education about reproductive health and sexually transmitted diseases at SMP N 5 Tandun, Rokan Hulu Regency was 17.3, standard deviation of 1.17 and a standard error of 0.14. And from the results of the Analysis before and after Health Education, the difference in the average value (Mean) of Adolescent knowledge was 7.2, with a Confidence Interval value (95%) and P Value of 0.0001, which means that there is a significant relationship between Health Education 50 About Reproductive Health and Sexually Transmitted Diseases with Adolescent Knowledge at SMP N 5 Tandun. Suggestions The results of this study can provide input for SMP N 5 Tandun as a means of information and useful discussion about reproductive health and sexually transmitted diseases.

Keywords: Adolescents, Health education, Reproductive health, STDs

HS-85

Exploring the Therapeutic Potential of Nisha-Amalaki in Diabetes Mellitus and Pancreatic Cancer Using a Computational Approach

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Abstract

Nisha-Amalaki (NA), an Ayurvedic formulation of *Curcuma longa* (Nisha) and Emblica officinalis (Amalaki), has been used to manage diabetes mellitus (DM) due to its antiglycemic and antioxidant properties. Previous studies have reported that both DM and pancreatic cancer (PC) share common mechanisms like insulin resistance and oxidative stress, suggesting potential therapeutic overlap. Extensive literature searches summarized 304 NA phytochemicals. In silico ADMET profiling, based on Lipinski's Rule of Five, Veber's rules, and drug-likeness highlighted 39 active phytochemicals, including cyclocurcumin, cholic acid, and piperine, with good oral bioavailability and drug-like properties. Using SwissTargetPrediction online toolkits, 39 proteins associated with PC and DM were suggested as potential targets of the active phytochemicals. Protein-protein interaction networks were constructed with STRING (confidence score cutoff of 0.7 and FDR < 0.5), resulting in 24 nodes and 33 edges. Using Cytoscape, topological analyses via Degree, MCC, and MNC algorithms identified 15 key nodes from each method. Comparative overlap revealed 14 hub genes, including STAT3, EGFR, and TLR4, targeted by the active phytochemicals of NA and are involved in both PC and DM. Enrichment analysis revealed that the hub genes were significantly involved in cancer-related biological processes, such as apoptosis, regulation of inflammatory response, and oxidoreductase activity. KEGG and MSigDB analyses revealed the involvement of these hub genes in cancer-related pathways, including bladder cancer, HIF-1 and IL-6/JAK/STAT3 signaling, epithelial-mesenchymal transition, and hypoxia. These findings suggest that NA contains active phytochemicals with potential dual-targeting properties for PC and DM, highlighting its promise as a candidate for alternative medicine strategies.

Keywords: Anticancer; Ayurvedic medicine; *Curcuma longa*; Emblica officinalis; Hub Genes.

HS-86

Relationship Between Adolescent Knowledge, Attitudes, and Education on Early Marriage Incidence in Rokan Hulu Regency

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Abstract

Early marriage is a marriage that is carried out at a young age between two young couples who have not reached the age limit, the final impact of which is on the welfare of the family and society as a whole. Early marriage is prone to reproductive health problems such as increasing morbidity and mortality during childbirth and postpartum, giving birth to premature babies and low birth weight babies and being easily stressed. The purpose of the study was to determine the relationship between knowledge, attitudes, and education of adolescents with the incidence of early marriage in Rokan Hulu Regency. The research method is quantitative analytic with a cross-sectional approach. The results of the study on 95 respondents who had early marriage were 89 (93.7%) respondents, while those who did not were 6 (6.3%) respondents. Respondents with less knowledge were 64 (67.4%) respondents and respondents with good knowledge were 31 (32.6) respondents. Respondents with negative attitudes were 44 (46.3) respondents and positive attitudes were 51 (53.7%) respondents. Respondents with low education were 82 (86.3%) and high education were 13 (13.7%). There is a relationship between knowledge and early marriage (0.000), there is no relationship between attitude and early marriage (1.000), and there is a relationship between education and early marriage (0.039). The conclusion is that there is a relationship between knowledge and education with the occurrence of early marriage, and there is no relationship between attitude and the occurrence of early marriage. Suggestions are expected as input for teenagers and a form of prevention of early marriage so that they do not engage in early marriage.

Keywords: Early Marriage; Adolescent; Knowledge; Attitudes; Education.

HS-87

Study in Reducing Symptoms in Menopausal Women: A Review

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Abstract

Menopause is a natural process of decline in the reproductive function of women, typically occurring between the ages of 40-55 years. This transition period marks the aging of the reproductive system, leading to menopause. Many symptoms are experienced, ranging from mild to severe, collectively known as climacteric syndrome. Engaging in daily physical exercise can be an alternative approach to alleviate various symptoms experienced during menopause. Maintaining physical fitness by balancing body weight and engaging in physical activities such as strength training, bone, and joint exercises is essential in reducing menopausal symptoms. This article aims to conduct a review of various interventions that can reduce symptoms in women undergoing menopause. The research method used in this study is a literature review, with database searches conducted on Google Scholar, PubMed, BMC, Frontier in Neurology, and Neliti from 2020 to 2025. The keywords used in the search were menopause, menopause syndrome, factors of menopause, and physical activity during menopause. Based on the search results, 8 articles were obtained, consisting of 5 national and 3 international articles. The articles showed that menopause syndrome can be reduced by implementing several interventions, including Body Mass Index (BMI), physical activity (aerobic, HIIT, gymnastics, jogging, meditation, and massage), and muscle relaxation techniques. This study aims to explain the condition of women in a non-reproductive state and improve the quality of life for menopausal women. Health education and additional information on group education for menopausal women in primary health care (PHC) about menopausal transition can improve their physical and mental health. Preventive efforts through health education to avoid risky behaviors in menopausal women need to be emphasized.

Keywords: Menopausal Women; Menopause Syndrome; Reduce; Physical Activity; Menopause.

HS-88

Exploring the Role of TAM in Digital Healthcare: A Systematic Literature Review

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Abstract

Background: Telemedicine, wearable technology, and mobile health apps are examples of digital healthcare technologies that have revolutionized healthcare delivery by enhancing patient outcomes, accessibility, and efficiency. The adoption of these technologies by end users, such as patients and healthcare professionals, is crucial. The Technology Acceptance Model (TAM), offers a framework for comprehending how users behave while adopting new technologies.

Objective: This systematic review explores the function of the TAM in digital healthcare.

Methods: A systematic search was conducted by PRISMA (Prefered Reporting Items for Systematic Reviews and Meta -Analyzes). It was conducted in databases such as PubMed, Scopus, IEEE Xplore, and Web of Science. The studies were published between 2020 and 2025. The PICO format was used in the literature search process: "Patients and healthcare providers", OR " Digital healthcare technologies", AND "telemedicine", AND " User Acceptance", OR "behavioral intentions".Inclusion criteria covered studies focusing on studies that applied TAM to digital healthcare technologies; and English publication.

Results: It was found that the theme was covered in about 1,250 journals. The final review contained 12 studies. The use of digital healthcare has been reliably predicted by Perceived Usefulness (PU). Technologies that were seen as enhancing workflow efficiency or health outcomes were more likely to be adopted by patients and clinicians. Perceived Ease of Use (PEOU): PEOU was also important, especially for non-technical users and older individuals. TAM conceptions were modified by elements like trust, privacy issues, and social influence.

Conclusion: An effective basis for comprehending the acceptance of digital healthcare technology is offered by the TAM. Acceptance is largely determined by perceived utility and use, but by social influence, and privacy. The necessity for more complex and situation-specific TAM applications in digital healthcare is highlighted by this review.

Keywords: Technology Acceptance Model; Digital Healthcare; Perceived Usefulness.

HS-89

Reflexology as a Complementary Therapy for Reducing Nausea and Vomiting in Pediatric Diarrhea: Literature Review

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Abstract

Background: Diarrhea in children remains a significant global health concern, often accompanied by nausea and vomiting, leading to dehydration and hindered recovery. While oral rehydration solutions and pharmacological therapies are common treatments, the limitations and side effects of the latter have prompted interest in non-pharmacological interventions, such as reflexology.

Objective: This literature review aims to explore current evidence regarding reflexology as a complementary therapy for reducing nausea and vomiting symptoms specifically in pediatric patients with diarrhea.

Method: A literature review was conducted, analyzing selected articles from databases including Scopus, ProQuest, Clinical Key Nursing, and Sage, covering the years 2020-2025. Keywords used included "reflexology in children," "diarrhea," and "complementary therapy." The selection process involved excluding articles based on publication year, language, duplication, and absence of a comparison group, resulting in a final set of four articles.

Results: Four articles were included in the review. Reflexology demonstrates the potential for reducing nausea and vomiting, alongside improving comfort and well-being in pediatric patients experiencing diarrhea. This highlights reflexology as a viable option for providing a safe, non-pharmacological approach to managing gastrointestinal symptoms.

Conclusion: Reflexology shows promise as a valuable complementary therapy for alleviating nausea and vomiting in children with diarrhea. Integrating reflexology into pediatric care offers a holistic approach that prioritizes patient comfort and enhances treatment outcomes. Future research should focus on rigorous methodologies and larger-scale studies to validate its effectiveness and support its integration into clinical practice.

Keywords: Complementary Therapy; Diarrhea; Reflexology in Children.

HS-90

The Impact of Nursing Engagement on Quality of Care: A Systematic Review

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Abstract

Background: In healthcare systems around the world, nursing engagement has become a crucial component affecting patient care quality overall, ethical practice standards, and workforce retention. Even though its significance is becoming more widely acknowledged, the existing body of research on the topic is still dispersed across disciplines and offers little insight into how engagement manifests differently among nursing students versus practicing professionals. With a focus on its effects on development outcomes, care delivery, and long-term career sustainability, this systematic review attempts to consolidate the role of engagement in quality improvement represented by its impact on learning outcomes, care delivery, and long-term career sustainability

Objectives: We aim to evaluate the practical relationships between nursing engagement and important quality indicators, such as clinical competence, patient outcomes, workforce retention rates, and educational persistence, and develop evidence-based suggestions for healthcare organizations and educational institutions to successfully promote and maintain engagement at all nursing practice levels.

Methods: We are following the PRISMA 2020 principles in conducting this systematic review. We will perform a search strategy on PubMed, Scopus, and Web of Science using a relevant keyword. Screening will be done by Rayyan semi-automated web, and data of included studies will be stored in an external Excel sheet.

Results: We anticipate key findings: First, it becomes clear that student engagement is essential for both academic achievement and the transition to practice, with clinical learning settings having a significant impact. Second, higher levels of engagement among practicing nurses are consistently associated with better patient outcomes, lower rates of burnout, and increased job satisfaction. Third, nurse engagement is associated with enhanced patient experience and enhanced professional sustainability amidst demographic, economic, and technological pressures. Engagement can be a foundation for ensuring the success of strategies to improve healthcare outcomes. These results will produce specific suggestions for leadership development initiatives, workplace policy changes, and curriculum revision to maintain a motivated nursing staff that can provide the best possible patient care.

Conclusion: This systematic review provides the most comprehensive synthesis of the data relating to nursing engagement and quality outcomes to date. Our findings will address important workforce issues and improve the quality of nursing care delivery worldwide by clarifying the importance and mechanisms of engagement.

Keywords: Nursing Engagement; Quality of Care; Systematic Review; Nursing Education; Development; Quality of Care.

HS-91

Determinant of Electronic Nursing Documentation on IPPR Model (Integrated Patient Progress Report)

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Abstract

One of the documentation models in nursing is the integrated patient progress record (IPPR) model, developed in electronic-based nursing documentation. The completeness of this documentation is needed as a form of communication between health workers. Many factors influence the completeness of documentation. The study aims to determine the determinants that influence the completeness of documentation on electronic IPPR sheets. We conducted the quantitative study with a descriptive correlation design and a cross-sectional approach. The research instrument used a questionnaire distributed to 47 respondents who were selected using a non-probability sampling technique. The multivariate analysis using the Logistic Regression test Backward LR method. Statistical test results showed that 24 (51.1%) of 47 nurses showed incomplete nursing documentation. Nurses' workload for the completeness of IPPR documentation (PR = 17.723, 95%CI: 2.259-139.081, p-value=0.006). Which means that there is a significant influence between workload on completeness of electronic IPPR documentation. This study recommends that the hospital give awards to motivate nurses, evaluate the workload of nurses, and routinely monitor the completeness of electronic IPPR documentation. Workload, and routine monitoring of documentation completeness.

Keywords: Electronic Nursing Documentation; IPPR; Knowledge; Motivation; Workload.

HS-92

Exploring the Impact of Job Satisfaction on Nurse Retention: A Research-In-Progress from King Salman Medical City

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Abstract

The retention of nursing professionals has emerged as a critical challenge for healthcare systems globally, particularly in regions facing shortages of qualified personnel. This research-in-progress investigates the pivotal role of job satisfaction in shaping nurse retention at King Salman Medical City in Saudi Arabia. Grounded in Herzberg's two-factor theory of job satisfaction framework, the study examines how various dimensions of job satisfaction such as work environment, organizational policies, and compensation influence nurses' intentions to remain in their roles. Employing a cross-sectional quantitative methodology, data will be collected using validated and standardized survey instruments McCloskey/Mueller Satisfaction Scale (MMSS) and Anticipated Turnover Scale (ATS) to ensure reliability and accuracy. While the research is ongoing, preliminary insights are anticipated to provide actionable strategies for healthcare policymakers and hospital administrators aiming to mitigate nurse turnover by fostering greater job satisfaction. Ultimately, this study seeks to contribute to closing the knowledge gap in the Saudi context and support evidence-based interventions for enhancing workforce stability and healthcare service quality both locally and regionally.

Keywords: Job Satisfaction; Nurse Retention; Healthcare Workforce; King Salman Medical City; Saudi Arabia.

HS-93

The Relationship Between Transformational Leadership Style and Nurse Retention in Hospital Settings: A Systematic Review

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Abstract

Introduction: The World Health Organization has indicated that the shortage of healthcare professionals is a worldwide issue, especially concerning nurses, who account for over 50% of the existing shortage of healthcare workers. Staff turnover rates differ significantly in high-income countries, with New Zealand experiencing the highest rate at 44.3%, followed by the United States at 26.8%, Israel at 23%, Canada at 19.9%, and Australia at 15.1%. Employees are essential assets of an organization; therefore, this should be the primary focus for leadership, which must implement strategies to enhance staff retention. In recent years, the concept of leadership has gained significant importance within the nursing profession. Consequently, various leadership styles are essential for minimizing waste, reducing costs, alleviating confusion, and decreasing errors. It is well documented that the leadership styles employed by nurse managers are crucial in fostering nurses' commitment to their work environment. Furthermore, while job satisfaction can be enhanced through external factors such as salary increases, nurse managers have the ability to increase job satisfaction by implementing appropriate leadership styles. It is estimated that nearly one-third of nursing staff's job satisfaction can be improved simply through adjustments in managerial leadership behaviors. Therefore, nurse managers can effectively retain their staff in a cost-efficient manner by exhibiting the right leadership style. According to Newstrom (2015), leadership styles are the ways in which individuals make decisions, carry out plans, and inspire employees. Managers who adopt the transformational leadership style transform followers' ideas about what is important, inspiring them to see opportunities and challenges in a more positive light.

Objective: The aim of this systematic review is to synthesise the relationship between transformational leadership style and nurse retention in hospital settings.

Methods: A systematic literature review following the guidance of PRISMA. Comprehensive literature searches were conducted in PubMed, MEDLINE, and CINAHL. All English articles published between 2018 and 2024 reporting the relationship between transformational leadership style and nurse retention in hospital settings were eligible for inclusion.

Results: Seven articles were included in the review. These studies were conducted in hospital settings, with a total of 4119 nurses and they reported the positive relationship between transformational leadership style and staff nurse retention.

Conclusion: The transformational leadership style has a positive and significant relationship with nurse retention and job satisfaction among nurses in healthcare settings. Consequently, it is advisable for healthcare organizations to adopt a transformational leadership style to improve nurse retention and nurses' job satisfaction.

Keywords: Nursing; Nurse Retention; Job Satisfaction; Transformational Leadership.

HS-94

The Impact of Nursing Well-Being on Nursing Performance: A Theoretical Framework and Proposed Study

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Abstract

Nurses significantly influence various healthcare sectors, including community health, patient-centered care, and patient safety. However, the psychological well-being of nurses and its impact on their professional performance remain global concerns. Given the critical role nurses play in healthcare organizations, enhancing their psychological well-being is essential for effective patient care and coordination with other healthcare providers. Studies reveal that nurses experience low levels of well-being due to factors such as heavy workload, emotional exhaustion, burnout, work stress, and long working hours, all of which affect their performance and job satisfaction. This study investigates the impact of nurses' psychological well-being on their clinical performance in the context of Saudi Arabia (KSA), particularly in light of the Saudi Vision 2030, which emphasizes healthcare and nursing advancements. Despite the substantial growth in the nursing profession, challenges such as high turnover, workload, and stress due to insufficient nursing manpower persist, potentially impacting nurses' psychological well-being and performance. The research utilizes the Job Demands-Resources (JD-R) theory to explore the relationship between job demands, resources, and nurses' psychological well-being, aiming to identify strategies to improve their well-being and performance. The study highlights the need for supportive interventions and the development of wellness programs within healthcare organizations to enhance nurses' productivity and job satisfaction. Through a comprehensive literature review, the study underscores the positive correlation between psychological well-being and job performance, advocating for a balanced approach to managing job demands and resources to foster a healthy work environment for nurses.

Keywords: Nurses; Psychological Well-Being; Job Performance; Job Demands-Resources (JD-R) Theory.

HS-95

Continuous Professional Development and In-Service Training at Emergency Care Centers: A Systematic Review

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Abstract

Background

Continuous Professional Developments (CPDs) and in-service training programs play a crucial role in enhancing the knowledge, skills, and competencies of healthcare professionals, particularly in emergency care settings.

Methodology

A systematic review was conducted following the PRISMA guidelines to evaluate the effectiveness of CPD and in-service training programs in emergency care centers. A comprehensive search of electronic databases was performed to identify relevant studies published within the last decade. Inclusion criteria focused on studies assessing training programs' impact on key performance indicators (KPIs) such as patient safety, emergency response efficiency, mortality rates, and infection control. Quantitative and qualitative data were synthesized to determine the overall effectiveness and reliability of the training interventions. Statistical measures, including Cronbach's alpha for internal consistency, Cohen's Kappa for interrater reliability, and triangulation methods, were used to ensure the validity of the findings.

Results

Of the 100 studies found on search engines, only five studies met the inclusion criteria. Findings indicate that CPDs and in-service training programs significantly improve healthcare providers' competencies in emergency response, risk management, medication safety, infection prevention, and leadership skills. However, variations in training effectiveness across different institutions highlight the need for standardized training protocols and evaluation methods.

Conclusion

CPDs and in-service training programs in emergency care settings are essential for maintaining high standards of patient care, reducing clinical errors, and improving response times in critical situations.

Keywords: Continuous Professional Development; In-Service Training; Emergency Care; Patient Safety; Systematic Review; Training Effectiveness; Healthcare Professional Development.

HS-96

Impact of Kegel Exercise on Maternal Postpartum Pain, Pelvic Floor Dysfunction and Sexual Function Among Women in Jeddah, Saudi Arabia

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Abstract

Background: Research has consistently shown that strengthening the pelvic floor muscles (a non-invasive training treatment known as the Kegel exercise) prior to the onset of clinical symptoms is the most effective way to lessen the impact of postpartum complications.

Aim: This study seeks to investigate the impact of the Kegel exercise on maternal postpartum pain, pelvic floor dysfunction, and sexual function among women in the obstetrics and gynecology department of the National Guard Hospital, King Abdul-Aziz Medical City, Jeddah, Saudi Arabia.

Methods: The present study was conducted with an experimental design with six weeks apart pre and post-tests, having 31 participants per group recruited with a convenience sample method. An interviewer-administered questionnaire containing a 20-item Pelvic Floor Disability Index (PFDI-20), a 19-item Female Sexual Function Index (FSFI), and the Visual Analogue Scale with the Faces Pain Rating Scale was used to measure pelvic floor dysfunction, sexual function, and postpartum pain, respectively. The data gathered was coded, entered, and analyzed using the International Business Machines Statistical Package for Social Sciences. Results: Results revealed a significant increase in the Female Sexual Function Index in the experimental group after the intervention and a significant decrease in the Visual Analogue Scale with the Face Pain Rating Scale in both groups after the intervention. There were no statistically significant differences between the experimental and control groups in the total score of pelvic floor dysfunction. However, the Colorectal-Anal Distress Inventory sub-scale showed a significant increase in the control group post-test. In conclusion, the current study has shown that Kegel exercise can increase sexual drive and reduce pain in women with postpartum complications.

Keywords: Kegel Exercise; Pelvic Floor Dysfunction; Sexual Function; Postpartum Pain; Postpartum Complications.

HS-97

Integration of Complementary Nursing Services in Cancer Patients Undergoing Chemotherapy: Literature Review

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Abstract

Background: Complementary therapies have become an important part of oncology nursing practice to improve the quality of life of cancer patients undergoing chemotherapy. The integration of this therapy into conventional nursing services aims to reduce the side effects of treatment and improve patient well-being holistically.

Objective: to analyze to describe the integration of complementary practice services in cancer patients undergoing chemotherapy.

Methods: Prefered Reporting Items for Systematic Reviews and Meta -Analyses (PRISMA) scheme used in this study. Electronic databases are as follows Google Scholar, PubMed, Scopus, DOAJ, Eric. The PICO format used in the literature search process includes terminology "Cancer Patient", "Chemotherapy", "Nursing", "Complementary Therapy", "Quality of Life".

Results: it was found that there were around 668 research journals related to the theme. There are 15 articles reviewed by the author that were published between 2020-2025. Complementary interventions such as aromatherapy, acupressure, music therapy, and mindfulness were shown to be effective in reducing nausea, pain, anxiety, and fatigue in cancer patients during chemotherapy. The role of nurses is critical in identifying patient needs, providing education, and integrating complementary services into care plans.

Conclusion: The integration of complementary nursing services in the care of cancer patients undergoing chemotherapy can improve clinical outcomes, satisfaction and quality of life for patients. Training and practice guidance for nurses is needed so that complementary services can be implemented safely, effectively, and evidence-based and expand their application in the health system.

Keywords: Integration of Complementary; Services of Nursing; Nursing; Chemotherapy; Cancer.

HS-98

Expectations and Responsibilities of Nurses and Pharmacists in IV Medication Administration: A Review

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Abstract

Intravenous (IV) medication administration is a fundamental aspect of patient care, requiring precision, collaboration, and adherence to safety protocols. Nurses and pharmacists play essential roles in ensuring the effective and safe administration of IV medications. Nurses are responsible for medication preparation, administration, patient monitoring, and immediate management of adverse reactions. Pharmacists oversee prescription verification, sterile compounding, dosage adjustments, and provide guidance to nursing staff on medication administration. Effective communication and interdisciplinary collaboration between these professionals are crucial in reducing medication errors, enhancing patient safety, and optimizing therapeutic outcomes.

This review examines the expectations and responsibilities of nurses and pharmacists regarding IV medication administration. It highlights key areas such as patient assessment, aseptic techniques, adherence to evidence-based protocols, and the role of pharmacists in verifying drug compatibility and providing medication safety education. The review also discusses common challenges, including communication gaps, workload pressures, and the growing complexity of IV therapies. Addressing these issues requires the implementation of standardized safety protocols, continuous professional education, and technological advancements, such as smart infusion pumps and electronic health records, to improve workflow efficiency. Enhancing collaboration between nurses and pharmacists through structured training programs, policy reforms, and interdisciplinary teamwork is essential to improving IV medication safety. Future advancements, including artificial intelligence for adverse drug reaction prediction and personalized medicine approaches, may further enhance the quality and safety of IV therapy. By fostering a culture of accountability and continuous improvement, healthcare institutions can ensure better patient outcomes and reduce preventable medication errors.

Keywords: IV Medication Administration; Nurse-Pharmacist Collaboration; Patient Safety; Medication Errors; Interdisciplinary Teamwork.

HS-99

Progress in Health Technology Methodologies: A Thorough Analysis Centered on Obstetrical Medical Devices

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Abstract

The purpose of this study is to examine the development of various approaches to health technology with a focus on devices used during pregnancy. Considering the increasing need for innovative methods of maternal healthcare, this paper examines the current landscape of medical device development and evaluates potential solutions to enhance the devices' use, safety, and efficacy. There was a significant need for novel methods of maternity care. The research uncovers major challenges and opportunities in the sector by conducting an in-depth analysis of the present technology and the developing trends.

Keywords: Health Technology; Analysis; Obstetrical Medical Devices.

HS-100

A Study on the Advancement of Cocaine Hydrolase for Therapeutic Intervention in Cocaine-Related Violence

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Abstract

The goal of this research was to create a synthetic enzyme called cocaine hydrolase (CocH) that would lessen the cognitive and physiological harm that cocaine causes. Cocaine would be broken down into inert byproducts very quickly by this enzyme. In this study, the researcher investigates the possibility of structurally optimizing CocH to increase its selectivity, stability, and catalytic activity while decreasing its off-target effects.

Keywords: Enzyme Security; Theory of Evolution; Pharmacokinetics; Cocaine Toxicity.

HS-101

Bioactive Compounds and Antioxidant Properties of Libyan *Pinus halepensis* Investigated by GC- MS

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Abstract

Background: *Pinus halepensis* is widely used in traditional Libyan medicine for treating various health conditions. However, its phytochemical profile and antioxidant capacity remain underexplored. Methods: The essential oil of *P. halepensis* was analysed using gas chromatography-mass spectrometry (GC-MS) to identify its chemical constituents. Antioxidant activity was assessed using three in vitro assays: DPPH, ABTS, and FRAP. Results: GC-MS analysis revealed that the major compounds were (-)-Neoclovene-(I), dihydro- (23.04%), 1-Naphthalenemethanol, decahydro-5-(5-hydroxy-3-methyl-3-pentenyl)-1,4a-dimethyl-6-methylene- (19.22%), and trans-4-(Hexyloxy)chalcone (10.86%). Other significant constituents included (E)-3-Methyl-5-((1R,4aR,8aR)-5,5,8a-trimethyl-2-methylenedecahydronaphthalen-1-yl)pent-2-en-1-ol (3.84%), oleic acid (2.17%), 9,12-octadecadienoic acid (Z,Z)- (0.95%), and trans-Farnesol (0.85%). Antioxidant testing demonstrated potent radical scavenging activity, with IC_{50} values of 68.76 ± 2.24 µg/mL (DPPH), 79.73 ± 3.34 µg/mL (ABTS), and 95.35 ± 4.45 µg/mL (FRAP). Conclusions: The results suggest that *P. halepensis* essential oil contains various bioactive compounds with strong antioxidant potential. These findings support its use in traditional medicine and suggest potential applications in managing oxidative stress-related conditions and natural food preservation. Further studies are recommended to isolate and characterise the mechanisms of individual active components.

Keywords: *Pinus halepensis*; GC–MS; DPPH; ABTS; FRAP.

HS-102

A Comparative Study on the Nursing Activities Score in the Intensive Care Units Between Private and Government Tertiary Hospital

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Abstract

Purpose: The purpose of the study is to compare the nursing workload by using nursing activities scores of nurses in the intensive care units (ICU) between government hospitals and private hospitals located in Jeddah, Saudi Arabia.

Background of the Problem: Assessing the nursing activities during the direct care of critically ill patients is important to understand the intensity of care given by critical care nurses to critically ill patients. The Nursing Activities Score (NAS) is intended to determine the nursing time required for direct care of ICU patients (Lachance, 2018).

Result: This study was conducted on nurses working in King Abdul-Aziz Hospital and Dr. Soliman Fakeeh Hospital. The response rate of the participants was found that 128 recruited nurses from both hospitals who filled out the questionnaire. The nursing activity scores we found in both hospitals are 6.25% below 50% which means one nurse can take care of several patients. Those with a workload who scored more than 50% in the nursing activities score were 93.75%. The score of more than 100% in the nursing activities score was 26.6%, which means One patient needs more than one nurse to give care.

Conclusion: The activity of workloads in nursing is decisive for the nurse-patient relationship it's assumed that the larger the quality of patients, the larger the time commitment of a nurse providing direct care. In brief, the Nursing Activities Score in the ICU has no significant difference between the two hospitals, government and private, and also no significant difference between demographic profile (age, gender, educational qualification and, years of experience. The workload of nurses in the ICUs was mostly equal in both hospitals, which means no difference between nursing care in Intensive care units government or private. It was a comparison between nursing activity, not the hospital facility.

Keywords: Nursing Activity Score (NAS); Workload; Intensive Care; Critical Care Nurses.

HS-103

The Relationship between Nurses' Self-Efficacy and Occupational Stress in the Critical Care Unit at King Abdul-Aziz Hospital in Jeddah Saudi Arabia

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Abstract

Background: Nursing, as a profession, is considered highly stressful, with job-related stress having adverse effects on nurses' health and their abilities to manage job demands. The high levels of stress that nurses experience at work increase their risk of developing physical and mental health problems. It is well-known that stress is a major risk factor, while general self-efficacy (GSE) is a significant protective factor. To address this challenge, hospitals should implement a comprehensive strategy that enhances nurses' general self-efficacy and social support, among other measures.

Purpose: This study aimed to examine the relationships between self-efficacy and occupational stress among nurses working in the critical care unit of King Abdulaziz Hospital located in Jeddah, Saudi Arabia.

Methods: The study used a descriptive cross-sectional research design and recruited 117 critical care nurses (CCN) from King Abdulaziz Hospital (KAAH) using the convenience non-probability sampling technique.

Results: The present study revealed that most nurses had high self-efficacy (31.30±6.14), above the cut-off score of 22. However, most of them also reported having moderate occupational stress levels (45.62±20.15) above the cut-off score of 39. It also showed that none of their demographics was significantly related to self-efficacy ($p>0.05$), except for their years of experience ($p=0.004$). Additionally, the occupational stress of the nurses did not depend on their demographics ($p>0.05$). Moreover, the results also showed no significant relationship between the nurses' self-efficacy and occupational stress ($p= 0.199$).

Conclusion: Nurses often experience work-related stress that can impede their professional performance and affect their well-being. To mitigate stress, nurses must employ cognitive strategies to monitor their efficacy as workers. This study found no significant relationship between the nurses' self-efficacy and occupational stress. Therefore, additional research is required to confirm or disprove the results of this study.

Keywords: Nurses' Self-Efficacy; Occupational Stress; Critical Care Nurses; Quality of Care; Work-Related Stressors; Competence; Professional Performance.

HS-104

The Relationship Between Family Role and Pressure Ulcer Prevention in Stroke Patients at a Hospital in Medan City

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Abstract

Stroke is one of the leading causes of long-term disability, often requiring patients to remain bedridden for extended periods. This condition increases the risk of pressure ulcers, which are skin and underlying tissue injuries caused by prolonged pressure. The role of the family is crucial in the care of stroke patients, particularly in efforts to prevent pressure ulcers. This study aims to determine the relationship between family involvement and the prevention of pressure ulcers in stroke patients hospitalized at a local hospital. The research design used is quantitative with a cross-sectional approach, where data collection is carried out at one point in time. The study involved 28 respondents, selected using purposive sampling. The Slovin formula was applied to determine the appropriate sample size, consisting of family members caring for stroke patients in inpatient wards. The research instrument used was a questionnaire measuring the level of family involvement and actions taken to prevent pressure ulcers. Data were analyzed using the Kendall Tau test, which assesses the correlation between two variables. The results showed that the majority of families played an active role in caring for stroke patients, including preventing pressure ulcers. A significant relationship was found between family involvement and the prevention of pressure ulcers, with a 95% confidence level and a significance level of $\alpha = 0.05$. The analysis produced a p-value of 0.003, meaning $p\ (0.003) < \alpha\ (0.05)$, indicating that higher family involvement is associated with better prevention efforts. In conclusion, family involvement significantly influences the prevention of pressure ulcers in stroke patients. The results of this study are expected to serve as input for hospitals to encourage greater family participation in patient care and education regarding the prevention of stroke-related complications.

Keywords: Pressure Ulcer; Prevention; Family Role; Hospital; Stroke.

HS-105

The Effect of Aerobic Swimming Exercise on Serial Blood Sugar Levels in Male Wistar Rats with T2DM

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Abstract

Background: Type 2 Diabetes Mellitus (T2DM) is a complex metabolic disorder, characterized by typical characteristics of insulin resistance, with hyperglycemia and becoming endemic every year increasing due to lifestyle and lack of aerobic exercise, therefore effective aerobic exercise is needed to improve insulin function.

Objective: The purpose of this study was to analyze the effect of aerobic exercise swimming on decreasing serial blood sugar levels (KGD) in male T2DM Wistar rats. Research design post-test only control design, data analysis: one-way ANOVA test.

Methods: 25 male Wistar rats, were divided into 5 groups.

Results: The results of the study obtained mean serial blood sugar levels Week 1: K1 75-101 mg/dl, K2 345-600 mg/dl, K3 275-398 mg/dl, K4 285-430 mg/dl, K5 198-409 mg/dl, Week 2: K1, 75-101 mg/dl, K2, 345-600 mg/dl, K3,246-329 mg/dl, K4, 243-399 mg/dl, K5, 175-377 mg/dl, Week 3: K175-101 mg/dl, K2, 345-600 mg/dl K3,221-276 mg/dl K4,219-329 mg/dl K5, 149-343 mg/dl, Week 4: K1 75-101 mg/dl, K2 345-600 mg/dl, K3 209-241 mg/dl, K4 180-257 mg/dl, K5 137-313 mg/dl, Week 5: K1 75-101 mg/dl, K2 345-600 mg/dl, K3 156-214 mg/dl, K4 145-209 mg/dl, K5 117-296 mg/dl, Week 6: K1 75-101 mg/dl, K2 345-600 mg/dl, K3 93-189 mg/dl, K4 112-170 mg/dl, K5 106-270 mg/dl. The results of the analysis test with one-way ANOVA from weeks 1-6 showed a p-value of 0.000, meaning the p-value <0.05, there was a significant influence.

Conclusion: Moderate-intensity swimming aerobic exercise with a duration of 30-40 minutes for 6 weeks is a very effective therapy for serial KGD in male T2DM Wistar rats.

Keywords: Aerobic Exercise; Swimming; Serial KGD; T2DM.

HS-106

The Effect of Aerobic Exercise on Lipid Profile in Male Wistar Rats with Type 2 Diabetes Mellitus

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Abstract

Aerobic exercise is an alternative therapy used to reduce lipid profile levels, if done regularly and for a certain duration. Accumulation of lipid levels in adipose tissue will decrease and can improve insulin performance, improve insulin sensitivity if aerobic exercise is done continuously and regularly. The study aims to analyze the effectiveness of aerobic exercise on lipid levels of male Wistar rats with type 2 diabetes mellitus. This study used an in vivo study type with a post-test randomized controlled group design in male white rats with type 2 DM. The results of the lipid profile include the highest triglycerides in group 2, a value of 79.60 ± 9,558, and the lowest in group K1 with a value of 37.80 ± 4,919. The highest HDL levels were in group 2 with a value of 83.80 ± 7.19, and the lowest in group 4 with a value of 61.20 ± 7.46. The highest LDL levels were in group 1 with a value of 36.0 ± 7.80 and the lowest in the control group with a value of 25.80 ± 1.92, followed by group 4 with an average value of 34.00, ± 2.83. The highest cholesterol levels were in group 2 with a value of 105.00 ± 7.42, and the lowest in group 1 with a value of 44.40 ± 4.72, followed by group 4 with a value of 74.60 ± 9.62. Conclusion Aerobic exercise has the ability to reduce lipid levels with moderate intensity where the P value <0.005, there is a significant difference between groups. Swimming exercise can be used for fat burning, so that there is a decrease in lipid levels and can improve insulin sensitivity in male Wistar rats with type 2 DM.

Keywords: Aerobic Exercise; Swimming; Lipid Profile; T2DM.

HS-107

Factors Determining the Utilization of Program Integrated Health Pos (POSBINDU) for Non-Communicable Diseases in Kabupaten Labuhan Batu Utara, North Sumatera

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Abstract

The current health problem in Indonesia is the double burden of disease, namely the presence of infectious diseases plus the increase in non-communicable diseases, (NCD). This study used a research design with an analytical observational method with a Cross-Sectional approach. The sample in this study was 376 randomly selected. This research was conducted in Kabupaten Labuhan Batu Utara.

The results of the Mann-Whitney statistical test on the knowledge variable obtained p value > 0.05 which stated that there was no significant difference in the knowledge of the group of respondents who used and who did not use the program Posbindu. The results of the Independent Sample T Test statistical test on the attitude variable, behavior variable, family support variable, stakeholder support variable, self-motivation variable, and mileage variable also have a p-value> 0.05 which means that there is no significant difference between the variables of family support, stakeholder support, self-motivation and distance to posbindu with the respondent groups who use posbindu and those who do not use program posbindu.

Increasing knowledge will improve the attitudes and behaviors of the community in an effort to utilize the PTM Posbindu accompanied by family support in terms of motivating or helping family members who want to take advantage of the PTM Posbindu.

Keywords: Posbindu Utilization Factors; Non-Comunicable Disease.

HS-108

Progress of Artificial Intelligence in Kidney Disease Research

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Abstract

In recent years, artificial intelligence (AI) has made remarkable progress in the research and clinical application of kidney diseases, becoming an important tool for improving the management of nephropathy. With the rapid development of computing technology and data analysis methods, AI has demonstrated great potential in areas such as early diagnosis, risk assessment, treatment plan optimization, and patient management of diseases. However, although the implementation of AI technology has achieved certain accomplishments, many challenges still exist in aspects such as data quality, model interpretability, and clinical applicability. In addition, ethical issues and patient privacy protection are also key issues that need to be addressed urgently. This article will review the current application status of AI in the field of kidney diseases, including the latest research results, and deeply explore the challenges and future development directions of AI in nephropathy research, aiming to provide valuable references for clinical and research personnel and promote the further development of the field of kidney diseases.

Keywords: Artificial Intelligence; Nephropathy; Early Diagnosis; Risk Prediction; Treatment Optimization.

HS-109

Effectiveness of Home-based Cardiac Rehabilitation to Improve Quality of Life and Health Behavior of Patients with Cardiovascular Diseases in Low Resource Settings, Pakistan

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Abstract

Background: Coronary heart disease is one of the major non-communicable diseases that the population is being affected at a higher level in Pakistan. Cardiovascular diseases are among the non-communicable diseases, reported as 29% of the mortality rate in Pakistan. Home-based nursing care has an essential role in reducing emergency visits of patients with cardiovascular diseases. Home-based rehabilitation nursing care has broad-based scope in the field of health sciences. HBCR can significantly improve not only the control of cardiac disease but also rehabilitation and improve quality of life.

Purpose: This study assesses the effectiveness of Home-based cardiac rehabilitation to improve the quality of life, and health behavior of patients with cardiovascular disease in low-resource settings.

Methodology: In this study, a randomized controlled trial (RCT) design will be applied. The population of the study will be the patients aged (≥18 years) diagnosed recently with cardiovascular diseases and the study participants will be included who meet the criteria. The study will be conducted at the Caric Centre, Pakistan Institute of Medical Sciences Hospital, a 1000-bed tertiary care hospital in Islamabad Pakistan. Participants will be assigned randomly in two groups: an intervention group who will receive a 12-week structured HBCR program and a control group receiving standard post-discharge care. The intervention of the study will consist of lifestyle modification, counseling physical activity guidance, and weekly telephonic follow-ups. The primary outcome is expected to recover the optimal quality of life, through measuring the SF-36 a validated questionnaire. Changes in health behavior will be the secondary outcome of the study. Data will be gathered at baseline and post-intervention, and data will be analyzed through an updated version of SPSS with a significance level of $p < 0.05$.

Expected Results: It is expected that the HBCR program will bring positive outcomes for the intervention group and will reflect significantly in the recovery of quality of life scores and the adoption of healthier behaviors as compared to the control group. The purpose of this study is to provide evidence on the effectiveness of home-based cardiac rehabilitation in low-resource settings and offer a scalable model to improve cardiac care where traditional services and resources are constrained to the population.

Keywords: Cardiovascular Diseases; Cardiac Rehabilitation Program; Home-Based Intervention; Quality of Life; Randomized Controlled Trial; Low-Resource Settings.

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HS-110

The Relative Influence of Transformational Leadership and Change Management on Patient Outcomes in Riyadh Health Clusters: A Multiple Regression Analysis

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Abstract

This study investigates the relative influence of transformational leadership and change management on patient outcomes in Riyadh Health Clusters through a rigorous quantitative approach. A structured questionnaire measuring transformational leadership, change management practices, and patient outcomes was administered to 384 healthcare professionals across three Riyadh Health Clusters. Stratified random sampling ensured the representation of nurses, physicians, administrators, and technical staff. Data were analyzed using SPSS v27, employing multiple regression to evaluate both the independent and joint contributions of the two predictors at a 5% significance level. The combined model explained 66% of the variance in patient outcomes ($R^2 = 0.66$, $F = 98.4$, $p < 0.05$). Transformational leadership emerged as the stronger predictor ($\beta = 0.58$, $t = 10.20$, $p < 0.05$), while change management also had a significant but smaller effect ($\beta = 0.24$, $t = 4.15$, $p < 0.05$). Both transformational leadership and structured change management practices significantly enhance patient outcomes, with leadership exerting a more pronounced influence. These findings underscore the importance of developing inspirational leadership alongside robust change management frameworks to optimize care quality and organizational performance in healthcare settings.

Keywords: Transformational Leadership; Change Management; Patient Outcomes; Healthcare Quality; Riyadh Health Clusters.

HS-111

Investigating the Impact of Strategic Leadership on Patient Satisfaction in Riyadh Health Clusters

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Abstract

This study examined the impact of strategic leadership on patient satisfaction within the Riyadh Health Clusters in Saudi Arabia. Design: Employing a quantitative, cross-sectional design, we surveyed 384 healthcare professionals including nurses, physicians, administrators, and technical staff; using a stratified random sampling approach. Methods: A structured questionnaire captured demographic data and measured perceptions of strategic leadership and patient satisfaction. Results: Respondents were predominantly male (68.2%), aged 26–35 years (78.2%), and held at least a bachelor's degree (45.0%). Nurses comprised 78.7% of the sample, and most had 4–5 years of experience (49.3%). The regression analysis yielded an extremely weak correlation ($R = 0.032$) and explained only 0.1% of the variance in patient satisfaction ($R^2 = 0.001$). The model was not significant ($F = 0.40$, $p = 0.528$), nor was the standardized beta for strategic leadership ($\beta = 0.032$, $t = 0.632$, $p = 0.528$). Practically, a one-unit increase in strategic leadership corresponded to a negligible 0.0197 unit increase in patient satisfaction. Conclusions: Contrary to findings from other contexts, strategic leadership as measured here, does not appear to influence patient satisfaction in Riyadh's health clusters. This null result suggests the need to investigate potential mediators (e.g., staff engagement, process quality), contextual factors, and longitudinal effects to fully understand leadership's role in patient-centered outcomes.

Keywords: Strategic Leadership; Patient Satisfaction; Riyadh Health Clusters; CrossSectional Study; Linear Regression Analysis; Healthcare Management.

HS-112

Real-Time Assessment of Triage Nurse Situational Awareness (SA) Using the Situation Awareness Global Assessment Technique (SAGAT)

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Abstract

Background: The emergency department (ED) is a complex, unpredictable, and distraction-filled environment. Within these challenging conditions, triage nurses are tasked with quickly assessing, identifying, and prioritizing patients who require urgent interventions. Studies from other safety-critical fields, such as aviation and the military, have highlighted that situational awareness (SA) is a critical skill for optimizing human performance during time-sensitive situations. In these fields, limitations in SA have been identified as significant risks to safety. However, despite its importance, SA in the context of EDs has been largely overlooked. Endsley's SA theory and the Situation Awareness Global Assessment Technique (SAGAT) provide a framework to evaluate SA in dynamic and complex workspaces. This study aims to assess SA during real-time triage processes of patients in EDs, utilizing Endsley's SA model.

Method: An observational cross-sectional study was conducted to assess SA. Forty real-time triaging processes were observed and evaluated in two ED sites, using the SAGAT to measure SA levels.

Results: A total of 40 triage nurses participated in the study across two ED sites. The findings revealed that the perception of patient cues was significantly reduced by workload ($p = 0.048$) and stress ($p = 0.025$) while playing video games was associated with enhanced perception of patient cues ($p = 0.014$). Additionally, a significant negative correlation was observed between the perception of patient cues and comprehension, indicating a cognitive trade-off between these two SA levels. Only 10% ($n = 4$) of participants achieved a good SA score, emphasizing the need for improvement.

Conclusion: The results underscore the importance of understanding and improving situational awareness in triage nurses using Endsley's SA model. These findings offer valuable insights for enhancing future practice, education, and research focused on optimizing situational awareness in emergency nursing.

Keywords: Real-Time Assessment: Triage Nurse; Situational Awareness; Situation Awareness Global Assessment Technique.

HS-113

When Nurses in an Emergency Situation Look for a Medical Item But Fail to See It

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Abstract

Emergency department nurses may fail to see medical items in emergency cart drawers, such as syringes and tubes while handling emergencies, which can often contribute to a delay in managing the case. This is a phenomenon known as Looked-but-failed-to-see (LBFTS) and occurs when the observer fails to detect a visible visual stimulus among various other stimuli. LBFTS is a group of human errors, including inattentional blindness (IB), satisfaction of search, and biased search processes, and is associated with constraints on human visual processing. LBFTS has been studied extensively in the fields of aviation, military, radiology, and road safety; however, the role of LBFTS in hospital ED has generally been overlooked. Hence, a key aim of this study was to investigate the possibility of the occurrence of LBFTS among ED nurses while searching for a particular medical item during a real-life emergency. An observational cross-sectional blinded study was conducted to determine the occurrence of LBFTS in a real-life visual search task during resuscitation cases in ED. The A-B-C (antecedent behavior-consequence) observation and recording naturalistic observation technique was used. A total of 45 ED nurses who were assigned to either the crash cart or the intubation trolley at the time of data collection agreed to participate and were included in the analysis. The results revealed that LBFTS accounted for 66% of the cases where emergency items were brought from another location. Participants missed seeing an item, although the item was directly in front of their eyes. Factors such as the perception of cognitive workload at the time of data collection positively impacted the increase in LBFTS ($P = .021$). Taken together, the results of the present study and recent visual studies support the occurrence of LBFTS among nurses working in ED. Devising successful strategies to reduce this phenomenon could translate directly into saved lives.

Keywords: Nurses; Failure; Observation; Critical; Adverse Outcome; Blindness.

HS-114

The Relationship of Hemodialysis Duration with Fatigue and Sleep Quality in Patients with Chronic Kidney Disease

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Abstract

A condition known as chronic kidney disease occurs when kidney function progressively drops for longer than three months, making it impossible for the kidneys to adequately filter bodily fluids and toxins. Dialysis therapy (hemodialysis and peritoneal dialysis) or kidney transplantation is necessary for the fifth stage of chronic kidney failure, which is characterized by a substantial 90% damage to glomerular filtration, waste residue, and disruption of homeostasis. Hemodialysis patients' quality of life may ultimately be lowered by fatigue and sleep problems, which can lead to malaise, diminished focus, sleep problems, mood swings, and decreased ability to carry out everyday tasks. The goal of this study is to determine how long hemodialysis with exhaustion affects the quality of sleep. Purposive sampling strategies were used to include 40 respondents in the study, which used a cross-sectional design and correlational analysis methods. The Pittsburgh Sleep Quality Index (PSQI) and the Fatigue questionnaire were used to measure the level of fatigue. The duration of hemodialysis was associated with patients' fatigue levels and sleep quality, according to the results of the chi-square p test (p=0.05). Researchers advise that additional variables that impact hemodialysis patients' fatigue levels and sleep quality should be considered.

Keywords: Hemodialysis; Fatigue; Sleep Quality; Chronic Kidney Disease.

HS-115

Correlation Between Working Periode and Inpatient Nurse Performance at Martha Friska Brayan Hospital

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Abstract

The job performance of nurses is one of the important factors in implementing the quality of nursing services in a hospital. Every hospital has problems with the performance of nurses especially those who are working in the in-patient wards, and this condition also applies in Martha Friska Brayan Hospital. This study was done with an explanatory approach which aimed to analyze the influence of corporate culture and the nursing care standards application on the performance of nurses working inpatient ward at Martha Friska Brayan Hospital. The population of this study were the 56 nurses working inpatient ward of Martha Friska Brayan Hospital and all of them were selected to be the sample for this study. The primary data for this study data were obtained through questionnaire distribution. The data were analyzed through the Chi-square test at a level of confidence of 95%. The result showed that the working period has a value of p = 0,004 (P value ≤ 0,05). Nurses who have a working period of less than 3 years as much as 80,4%. The nurse performance in the in-patient ward of Martha Friska Hospital was 63% and this belonged to the less adequate category. The working period had a significant influence on the nurse performance in the in-patient ward of Martha Friska Brayan Hospital. It is suggested to the Martha Friska Brayan Hospital management for: 1) The hospital should implement training, knowledge development, and ongoing education for nurses because data indicates that vocational nurses dominate (2) The hospital should manage the work schedules of nurses to ensure adequate coverage and experience within each shift (3) The hospital should provide opportunities for nurses to advance in their careers based on their performance and qualifications.

Keywords: Working Period; Nurse Performance.

HS-116

Nurses' Experiences with an Electronic Tracking System in the Emergency Department: A Qualitative Study

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Abstract

Purpose: A dashboard is an electronic screen that is located at the most visual point in a department and displays concise patient data. The use of a dashboard has been reported in assisting task coordination and communication among end-users, providing the informatics department with accurate data to measure metrics and enhance quality improvement programs. It improves decision-making and makes services more efficient. There is a need to know more about the nursing experience with this new tool and the changes in the way services are provided in an emergency department. The aim of this study is to explore Nurses' Experiences with an Electronic Tracking System in the Emergency Department (dashboard).

Methods: A qualitative descriptive approach with narrative analysis was used. Ten nurses who worked in the ED at King Abdul Aziz Specialized Hospital in Taif participated. The study took place from December 2021 to April 2022. Data were collected through semi-structured interviews.

Results: Nurses' experiences with the ED dashboard were categorized into four main themes: clinical performance, quality of service, and metrics; leadership and management; digital transformation; and financial issues. The electronic tracking system helps minimize individual time and effort, facilitates patient identification, increases nurses' awareness of the patient status in the ED, updates the quality indicators, and helps enhance quality improvement programs.

Conclusion: The electronic tracking system created a paradigm shift in healthcare services. The nurses were satisfied with the electronic tracking system.

Keywords: Digital Technology; Digital Health; Emergency Department; Tracking System; Dashboard.

HS-117

The Good Breastfeeding Adaptation Increase Postpartum Quality of Life

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Abstract

Postpartum mothers are affected by any physical and physiological changes resulting in various postpartum quality of life. According to Jeong et al. (2021), the postpartum quality of life is influenced by fatigue, marital intimacy, postpartum depression, and breastfeeding adaptation. Breastfeeding adaptation is one of the important factors. This study aimed to identify the association between breastfeeding adaptation and postpartum quality of life. This research is an analytical descriptive research with a crossectional approach. The participants of this study were 179 postpartum mothers from four Public Health Centers in Tangerang Selatan City. The instruments of this study were the Breastfeeding Adaptation Scale (BFAS) and Maternal Postpartum Quality of Life (MAPP- QOL) in the Indonesian Version. The Sommerd test result showed that Breastfeeding Adaptation was significantly associated with Postpartum Quality of Life (r = 0,363, p-value = 0.000). The result showed that the better the adaptation to breastfeeding, the higher the quality of life. This study suggests the next research to do multifactorial analysis to another influencing factor. It is also recommended that healthcare providers give intervention to help postpartum mothers increase their breastfeeding adaptation.

Keywords: Postpartum Quality of Life; Breastfeeding Adaptation.

ACCOUNTING, BUSINESS AND MANAGEMENT SCIENCES

BM-01

Examining the Mediating Role of Employee Perception on the Influence of Leadership Behavior and Organizational Culture on the Reliability of Predictions in Chinese Organizational Context

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Abstract

This research intends to investigate the role that employee perception plays as a mediator in the link between leadership behaviour, organisational culture, and the dependability of forecasts within Chinese organisations. The business environment in China is quickly changing, and it is becoming more important to have a solid knowledge of how leadership and cultural aspects impact the accuracy of predictions. According to the findings of the study, successful leadership behaviours including communication, support, and adaptation can improve employee views of organisational activities, which in turn influences the dependability of forecasts. Further amplification of this impact may be achieved via the establishment of a robust organisational culture that is characterised by trust and cooperation. Interviews were conducted with representatives from a variety of Chinese businesses to gather data using a qualitative methodology. The results indicate that positive employee views substantially affect the association between leadership behaviour and the reliability of forecasts. This highlights the significance of cultivating a work climate that is both inclusive and supportive of its employees. In the end, the research highlights the need for leaders to create strong employee perceptions and a solid organisational culture to increase predictive capacities. It also offers significant insights for practitioners who are looking to improve decision-making processes in the Chinese market, which is experiencing fast change.

Keywords: Employee Perception; Leadership Behaviour; Organisational Culture; Chinese Organisation.

BM-02

The Mediating Effect of Technological Innovation on the Relationship Between Privatization of Saudi Airports and Employee Performance Dynamics

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Abstract

The privatization of Saudi airports is focused on improving the functionality of the trade routes and achieving sustainability in the aviation industry. Technological innovation is one of the crucial elements that help in the process of privatization, as well as employee performance dynamics. Apart from that, technological innovation is also the result of unique business performance in the competitive marketplace. Therefore, this study seeks to explore the mediating effect of technological innovation on the relationship between the privatization of Saudi airports and employee performance. This paper's objective is to use global examples to analyze the effects of this growth and determine its efficacy. It starts by examining various important topics, including the degree of government participation, the choice of administrator or shareholder, the decision between groups compared to individual activities, and the applicability of economic legislation. Reviewing the privatization process, the article identifies significant shifts in the way privatization is seen today in contrast to in the past with regard to motive, geographical scope, model category, shareholder, and transaction. This paper has examined the mediating impact of technological innovation by collecting data through a close-ended survey questionnaire from 402 employees, who are working in Saudi Arabia airport. Interpreting all of the items through IBM SPSS software, a high-reliability value has been identified that refers to a minimal measurement error in this research work. The generated findings from the multiple linear regression analysis tests and Sobel test- have figured that all of the hypotheses became supported in this research work helped to draw a valid and reliable research outcome.

Keywords: Technology, Innovation, Productivity, Globalisation, Aviation

BM-03

A Study to Understand the Costs and Benefits of Employee Interaction with the Public: Extending the Knowledge on the Typology, Consequences, Processes, and Contingencies

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Abstract

Research on emotional labor and burnout paints public contact with employees in a negative light, whereas work design studies highlight its positive aspects. The researchers contend that these divergent points of view emerge because various branches of literature take on very specific stances. In this dissertation, a paradigm is developed and tested that uses valence (good or negative) and content (affect-based or task-based) characteristics to classify employees' interactions with the public as either maltreatment, gratitude, problematic requests, or collaboration. Afterward, they use these metrics to forecast employee happiness (emotional tiredness and work satisfaction) and performance (e.g., completing assigned tasks, being proactive with customers, and being rude to customers), as well as the underlying processes and boundary conditions of these outcomes. The researchers discovered that both good and negative contacts with the public contribute to employee well-being and performance based on multilevel analyses of the service employee-supervisor dyads from different organisations in China. On top of that, the researchers discovered that bad public encounters (such as rude or unhelpful consumers) may not necessarily have a negative impact on staff. This research takes a methodical look at the connections between various forms of public engagement and important work-related outcomes, including the patterns, mediating mechanisms, and boundary conditions of these relationships. Implications for customer service performance research and practice are substantial in light of these results.

Keywords: Typology; Employee Interaction; Costs and Benefits; Business Contingencies.

BM-04

Dividends Announcements and Stock Market Volatility; A Meta-Analysis

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Abstract

This paper conducts a meta-analysis to examine the relationship between dividend announcements and stock market volatility, synthesizing findings from a diverse body of empirical studies across different markets and economic contexts. Dividend announcements are pivotal corporate events that provide investors with insights into a company's financial health, profitability, and future prospects. The study investigates the extent to which these announcements influence market reactions, particularly stock price volatility, by aggregating and analyzing quantitative results from existing literature. The meta-analysis identifies patterns in market responses, highlighting factors such as market maturity, industry type, dividend yield, and announcement timing as key moderators of volatility. The findings suggest that while dividend announcements often reduce uncertainty and stabilize stock prices, certain conditions, such as unexpected changes in dividend policy, can amplify volatility. By uncovering these nuanced effects, the study provides a comprehensive understanding of the dynamics between dividend announcements and stock market behavior. This research contributes to the fields of financial economics and investment management by offering insights for policymakers, investors, and corporate decision-makers. It underscores the importance of transparent and consistent dividend policies in managing market expectations and mitigating volatility. The paper concludes with recommendations for future research and practical implications for enhancing market stability.

Keywords: Dividend Announcements; Stock Market Volatility; Meta-Analysis; Financial Market Behavior.

BM-05

Strategic Cooperation Between Manufacturers and Users of Intelligent Manufacturing Automation Equipment Factory

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Abstract

In the development of Industry 4.0 to today, automation equipment is a necessary tool for the modern mass production of all industrial and consumer products. However, factory development of automation equipment often encounters development failures or production volumes that are not pre-planned. Therefore, how to apply various sensors to collect real-time data from factories, in order to eliminate the production of defective products at any time and control all production costs, is the system that all factories hope to establish. In recent years, due to the rapid changes in the market, manufacturing factories that accept orders have faced significant cost challenges due to the trend of producing a variety of products in small quantities. In terms of reducing manufacturing costs, it is necessary to shift from a mass production mode to a production mode that can adapt to a variety of products in small quantities. This is a difficult technical challenge for automated equipment production to reduce costs. Manufacturing factories around the world are constantly striving to improve production efficiency and achieve on-time delivery of production products, with the ultimate goal of reducing costs and meeting customer's needs. The hidden costs of labor in product assembly are everywhere and require careful analysis by the factory's process engineers to find the real cause of waste. Waste increases the cost of the factory and reduces the profit and competitive advantage of the factory. Plant management supervisors must focus on the waste in production, focusing on discovering what manufacturing process can complete assembly at the least wage. The focus of improving production efficiency must be on how to replace labor with machines to obtain stable quality. Therefore, strategic cooperation between manufacturers and users of intelligent manufacturing automation equipment is crucial.

Keywords: Automation for Factory; Industry 4.0 in Factory; Lean Manufacturing in Factory; Smart Manufacturing in Factory; FMEA for Factory; Application of AI in factories.

BM-06

Studying the Impact of Artificial Intelligence on the Management of Projects and the Efficiency of Staff

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Abstract

This thesis looked at how artificial intelligence (AI) can be used in project management, focussing on how it might affect workers. In the future, artificial intelligence (AI) could help people make better decisions, be more productive, and handle projects more easily. The main point of this thesis was to look into how AI impacts project managers and the people they hire. The point of this study is to look into the pros and cons of artificial intelligence (AI), as well as how it has changed the roles of project managers and team members and raised social concerns. The study looked at previous research and also talked to project managers from Greece and Sweden in a semi-structured way. To give a full picture, this was done. Based on the results, putting artificial intelligence into project management may greatly benefit workers by making their jobs easier, and more accurate, and giving them better insights. However social problems and training for employees need to be carefully thought through before AI is used.

Keywords: AI Implementation; Project Management; Working Personnel; Ethical Considerations; Power Shift; Training and Support.

BM-07

The Tech Prescription: Innovating Sustainable Health

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Abstract

Although the technological revolution continues to restructure the healthcare realm, the adoption of sustainable health solutions still remains a recurring challenge, especially in Pakistan. This study interrogates the role of technological advancement in sustainable health solutions while integrating health promotion as a mediating factor. The selection of the firms used for this analysis is based on the firm's active amalgamation of technological advances in healthcare provision. Data from five major healthcare firms have been analyzed for the years 2019-2023 by using the techniques of panel regression and mediation analysis. Results of the study explain that tech-enabled innovations like digital health, telemedicine, surgical robotics, automation, predictive analysis, and 3D printing have a positive significant impact on sustainable health solutions including eco-friendly waste disposal, reduction in carbon emissions, the transition from cure-based approach to preventive approach and healthcare accessibility. Furthermore, the study predicts a significant partial mediation highlighting that health promotion mediates the relationship between tech advances and sustainable health solutions. This suggests that health promotion strategies can be beneficial in augmenting the impact of tech evolution. In spite of the potential technology possess, there are still numerous challenges like digital illiteracy, public skepticism, lack of infrastructure and regulatory voids that hinder the application of tech advances in the region. In order to amplify the adoption of technological transformation and well-structured policies, investment in digital infrastructure and comprehensive personnel training is pivotal. This research reinforces the exigency of incorporating health promotion strategies in order to attain sustainable health outcomes. The gap between technological potential and legitimate health outcomes can be bridged by the integration of health promotion, specifically in developing economies. The findings of the study offer valuable insights for stakeholders endeavoring to deploy tech-enabled, sustainable and equitable health solutions.

Keywords: Technological Advancement; Sustainable Health Solutions; Health Promotion; Artificial Intelligence; Sustainability.

BM-08

New Concept of Archivist Competence in Addressing the Digital Era

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Abstract

Background: The rapid development of digital technology has brought significant changes in various fields including archive management. Archives are no longer just in the form of physical documents but also In digital formats that require new management methods to remain accessible, maintain their authenticity, and be protected from the risk of loss or manipulation. This change requires archivists to not only have basic competencies in conventional archive management.

Objective: This study discusses the new competency framework needed by archivists in collecting, managing, preserving, and providing access to digital archives in the modern technological era.

Methods: This study uses a qualitative approach with a case study method to analyze the new concept of archivist competency in facing digital era. Through a literature review and case studies in various archival institutions, this study identifies key competencies, including digital literacy, information governance, and the ability to adapt to technology. This study emphasizes the importance of integrating knowledge management models in improving archivists' capabilities in handling digital archives. In addition, this study explores the challenges faced by archivists in adapting to digital transformation, such as the need for continuous professional development and institutional support. The results of the study indicate that a shift towards a technology-based and knowledge-based approach is essential for archivists to remain relevant in the digital era.

Conclusion: This study contributes to the discussion on the development of archivist competencies and provides practical recommendations for archivists and archival institutions in facing advances in digital technology.

Keywords: Archivist Competency; Archival Transformation; Digital Era; Knowledge management.

BM-09

AI-Driven Marketing in SMEs: A Study on Key Success Factors in Malaysia

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Abstract

This study investigates the application of Artificial Intelligence (AI)-driven marketing in Small and Medium Enterprises (SMEs) in Malaysia, focusing on the Key Success Factors (KSFs) that influence its adoption. AI technology has proven to enhance customer service speed, quality, and personalized marketing in SMEs. The research identifies several KSFs, including technical infrastructure, personal skills, privacy issues, and effective communication, which significantly affect the successful implementation of AI marketing. Through a quantitative research approach, data was collected from 380 SMEs in Malaysia using a survey questionnaire and analyzed using the PLS-SEM model. The findings suggest a strong positive correlation between these factors, which contribute to marketing success in SMEs. The study also highlights the challenges faced by SMEs in adopting AI tools, such as inadequate infrastructure and lack of professional skills. Moreover, the research proposes strategies to overcome these barriers, enabling SMEs to utilize AI effectively for business growth and competitive advantage. The results provide valuable insights into the critical elements that drive AI marketing adoption and help SMEs improve their digital transformation processes.

Keywords: Artificial Intelligence; Small and Medium Enterprises; Marketing; Key Success Factors; Digital Transformation.

BM-10

The Interconnection of Triple Bottom Line Performance and Agile Project Management: A Synergistic Approach" & Another Abstract Title is "Exploring Best Practices for Fostering Strategic Agility

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Abstract

Corporations are facade innovative tasks in order to meet customers' requirements, to promote sustainable solutions and to compete against their rivals. Mostly, all of the businesses are developing newer ventures, which is not only fruitful for the company, but also to initiate new products into the market. This approach entails huge skill as well as flexibility within self-developed and cross-functional teams, and that is one of the practices of agile project management. The goal of this study is to examine the effect of agile project management practices and sustainability, considering the point that there exist positive correlations with each other, and also to investigate how agile project management will affect businesses' sustainable performance which is societal, economic, and ecological performance. This research will also inspect how agile project management practices influence the three unique supports of sustainability grounded in the previous literature. The conceptual framework was developed centered on the concepts taken from the literature. A detailed clarification regarding the new-fangled relations amid agile project management and sustainability is also given in the form of diagrams, briefing their presence and strong relationships between them. The results disclose that employing agile project management practices will have a direct effect on companies' social performance, economic performance, and environmental performance, with a promising outcome.

Keywords: Sustainability; Agile Project Management; Social Performance; Economic Performance; Environmental Performance.

BM-11

The Importance of the Formulation and Implementation of Service Processes in China's Cosmetics Industry to Managers

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Abstract

In today's society, people's pursuit of beauty is becoming increasingly intense, and China's cosmetics industry has ushered in a golden period of vigorous development. From traditional skincare to high-tech medical beauty methods, the service content of the cosmetics industry is constantly enriched and expanded. In the fierce market competition, how to stand out and achieve sustainable development has become a key issue for industry managers.

In the process of formulating specific processes, many managers of cosmetics institutions lack comprehensive and systematic thinking and scientific and rigorous methods, resulting in a series of thorny problems such as unsatisfactory service efficiency, uneven quality, and greatly reduced customer experience, which seriously restricts the development pace of enterprises.

The scientific and reasonable construction and efficient and smooth implementation of the service process can not only greatly improve customer satisfaction and loyalty, but also create a unique and trustworthy brand image for the enterprise, and then emerge in the fierce market competition and occupy a favorable position. Managers should deeply understand and attach importance to the formulation and implementation of the service process, think deeply and attach great importance to it, continuously improve and optimize the service process with a proactive attitude, and improve the management level in an all-round way. It is an important guarantee for success in a complex and volatile market environment.

Keywords: Chinese Cosmetics Industry; Formulation of Service Process; Execution of Service Process, Customer Satisfaction, Customer Loyalty.

BM-12

Artificial Intelligence (AI) and Managerial Accounting on Corporate Performance

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Abstract

Recent advances in technology have accelerated artificial intelligence in modern business. Predominantly, the growing use of Artificial Intelligence (AI) in management accounting is anticipated to precisely determine corporate performance, and forecast the future of a company. The loss emphasizes the critical necessity for a broad assessment to ascertain gaps and initiative transformative developments on corporate performance. The study adopted a descriptive research design with the use of a well-structured questionnaire. The population consisted of 30 Managerial staff using snowballing and incidental sampling techniques with a sample size of 28 Managers. Data analysis was conducted using descriptive and inferential statistics of Multiple Regression analysis used to examine the effects of Artificial Intelligence (AI) and Management Accounting (MA) on Corporate Performance (CP). Findings from the result of multiple regression analysis on the effects of AI and MA on CP showed that two (2) explanatory variables were significant in explaining the variation of corporate performance (CP). These variables were real-time information systems (P =0.002) and Surveillance Systems (P= 0.003). The study demonstrated that AI and MA significantly influence corporate performance. However, it was recommended that improving operational efficiency requires investing in Artificial Intelligence.

Keywords: Artificial Intelligence; Management Accounting; Corporate Performance.

BM-13

The Impact of Strategical Innovation and Technological Advancement on Organizational Performance with the Mediating Role of Talented People on Medical Industries in China

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Abstract

The medical industry of China has experienced significant growth and transformation in recent years which are majorly driven by strategic innovation and technological advancements. It is reported that with the increasing healthcare requirement in China, the annual growth rate of health expenditure has been reported to be 11.3% between 2006 and 2022. The healthcare system of China is facing significant challenges despite having a 300% increase in investment. The aim of the study is to investigate what is the existing relationship between strategic innovation, technological advancement, and organizational performance in the medical sector in China and how talented people play an important mediating role in this relationship. The examination of the introduction of these factors will give a clear idea of how this factor influences the overall performance of the Chinese medical industry. Therefore, the present study seeks to contribute to an insightful understanding of different factors and future areas for the success of the medical industry of China in a dynamic and rapidly evolving market. The study is based on a positivist research philosophy. It deals with only observable phenomena and, therefore, measurable variables. Results will be objectively based on evidence rather than interpretation of some sort.

This research provides significant information on strategic innovation and technological change toward organizational performance with the help of talented people as mediators. The methodology of the study is strong in developing a robust framework for testing the research questions. Using this quantitative approach along with a positivist philosophy and strategy with a survey approach, the study can be promised to be based on objective and measurable data.

Keywords: Strategical Innovation; Technological Advancement; Organizational Performance; Talented People; Medical Industries.

BM-14

Organization of the Prominent Types of Innovation, Entrepreneurship, or Methods of Production Within Low-Technology Organizations

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Abstract

In seven conventional industrial industries throughout the European Union, this study aims to analyze the impact of external organization collaboration on innovations that are technically possible, non-technologically feasible, and economically viable. Researchers in this research polled a cross-section of SMEs to get their take on things. According to the empirical method, it is possible for these four types of innovation to work in tandem with one another.

Keywords: Imagination; Uniqueness; Edge In Competition; PME Equipment.

BM-15

AI-Driven Marketing in SMEs: A Study on Key Success Factors in Malaysia

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Abstract

This study investigates the application of Artificial Intelligence (AI)-driven marketing in Small and Medium Enterprises (SMEs) in Malaysia, focusing on the Key Success Factors (KSFs) that influence its adoption. AI technology has proven to enhance customer service speed, quality, and personalized marketing in SMEs. The research identifies several KSFs, including technical infrastructure, personal skills, privacy issues, and effective communication, which significantly affect the successful implementation of AI marketing. Through a quantitative research approach, data was collected from 380 SMEs in Malaysia using a survey questionnaire and analyzed using the PLS-SEM model. The findings suggest a strong positive correlation between these factors, which contribute to marketing success in SMEs. The study also highlights the challenges faced by SMEs in adopting AI tools, such as inadequate infrastructure and lack of professional skills. Moreover, the research proposes strategies to overcome these barriers, enabling SMEs to utilize AI effectively for business growth and competitive advantage. The results provide valuable insights into the critical elements that drive AI marketing adoption and help SMEs improve their digital transformation processes.

Keywords: Artificial intelligence; Small and Medium Enterprises; Marketing; Key Success Factors; Digital Transformation.

BM-16

Effect of Knowledge Management on Tacit Knowledge, Organisational Culture, Leadership and Information Technology

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Abstract

This study examined knowledge management in general, its overarching goal is to increase understanding of how to effectively handle tacit information. Since tacit knowledge is intrinsically elusive and rooted in people's experiences, ideas, & perceptions, organizations have substantial difficulty when attempting to obtain and utilize it. The significance of tacit knowledge as a source of innovation & competitive advantage is highlighted in this research, which explores various approaches to locating, gathering, and sharing it within organizational settings. A thorough paradigm for managing tacit knowledge has been developed via this study, which incorporates ideas from information science, organizational behavior, and culture for the improvement of knowledge management capabilities. The goal of this survey-based study is to identify the best practices for managing tacit knowledge. Some of the key points discussed include leadership can create a setting that is good for knowledge creation or transfer, technology can provide platforms for the transfer of tacit knowledge, and the importance of organizational culture for knowledge sharing. Some of the problems and hurdles that are considered include reluctance to share information, worries about trust, and the difficulty of codifying tacit knowledge. Ultimately, this research aspires to provide businesses with valuable insights and recommendations for enhancing their strategies for knowledge management. They were better able to compete in a knowledge-intensive economy, learn more, and innovate more as a result of this.

Keywords: Knowledge Management; Tacit Knowledge; Organisational Culture; Leadership; Information Technology.

BM-17

Effects of AI on Talent Acquisition and Human Resource Management in Chinese Organizations

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Abstract

The rapid evolution of Artificial Intelligence (AI) technologies has significantly influenced diverse business functions, with Human Resource Management (HRM) and talent acquisition among the most affected. This research investigates the transformative impact of Artificial Intelligence (AI) on Human Resource Management (HRM) and talent acquisition within Chinese organizations. Amidst China's accelerating technological integration and robust digital economy, the study examines how AI-driven tools such as predictive analytics, automated screening, and chatbots are reshaping HR practices. The central aim is to assess AI's influence on recruitment efficiency, decision-making, bias reduction, employee retention strategies, and overall organizational success. Employing a case study analysis of leading Chinese corporations like Alibaba and Huawei., the research integrates theoretical models including the Technology Acceptance Model (TAM), Resource-Based View (RBV), and the Theory of Planned Behavior (TPB) to analyze AI adoption's influence on HR professionals' perceptions, employee behavior, and organizational capabilities. The study highlights the dual nature of AI in HRM: enhancing efficiency and objectivity in hiring and personalized career development through data analysis. While posing risks such as algorithmic bias, data privacy breaches, and the dilution of the human-centric aspect of HR. The research delves into the cultural, legal, and ethical implications of AI deployment in China's HR landscape, addressing challenges like trust in algorithms and employee concerns about monitoring. Ultimately, this research aims to provide actionable insights and evidence-based recommendations for policymakers, HR professionals, and business leaders seeking to adopt AI in HRM effectively, ensuring strategies are innovative, ethical, technologically advanced, and human-focused. The study underscores the importance of aligning technological adoption with organizational values and social responsibility for sustainable growth and workforce well-being in intelligent HRM.

Keywords: Human Resource Management; Artificial Intelligence; Technology Acceptance Model; Resource-Based View; Theory of Planned Behavior.

EDUCATION AND SOCIAL SCIENCES

SS-01

The Essential Importance of Vocabulary Instruction in Language Proficiency: An Examination of Methods and Strategies Across Educational Approaches in China

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Abstract

During this research, the vocabulary learning strategies (VLSs) used by college students who were studying English as a foreign language (EFL) were investigated. This study used a VLSs questionnaire with a sample size of seventy-one students from a Chinese college who were majoring in English. The students belonged to both undergraduate and graduate levels of education. Based on the findings of the study, it was found that students often used cognitive and determination strategies. Using visual and textual repetition, practicing spelling and sound, taking notes with a focus on meaning, memorizing fixed phrases and sentences, using bilingual dictionaries, making informed guesses about the meanings of words, and learning Chinese equivalents were all strategies that they used. Additionally, students learned self-talk techniques to alleviate anxiety associated with language acquisition. The mechanical procedures that students used were linked to comprehension, and their primary emphasis was on learning the meanings of words. Metacognitive and social/affective tactics, on the other hand, were hardly used. Additionally, fewer people used memory techniques like associating words or remembering their grammatical forms. Vocabulary expansion and word association were more noticeable in students with greater levels of education. Hence, students' selections of VLSs were influenced by their learning maturity. More kinds of VLSs, including memory and metacognitive methods, should be used by students in these situations. It is recommended that English professors provide students with approach instructions and facilitate vocabulary learning via class discussions. Furthermore, it is advised to think about learning vocabulary on the side via both heavy and lengthy reading.

Keywords: Vocabulary Learning Strategies (VLSs); Cognitive Strategies; Language Proficiency; China's Educational Approaches.

SS-02

Understanding the Role of Educators in Professional Development via Inquiry

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Abstract

For teachers who are enrolled in degrees that require a significant amount of research, it is anticipated that they will acquire the abilities essential to function in an inquiry-based approach, in which they will be able to utilize and conduct their own research in order to reflect on their teaching methods. Nevertheless, there is a significant lack of knowledge about the efficacy and development of the graduates of these courses as instructors. For the purpose of this study, seven first-year teachers in the Netherlands who had previously completed academic teacher education courses were followed to see how they used inquiry-based learning in their classroom situations. Interviews were conducted with both the graduates and the administrators of their respective schools over the course of a period of around three years. Their involvement in inquiry-based learning extends beyond the confines of the classroom and throughout the whole of the school, depending on the personal and institutional motivations that motivate them. The results highlight pathways that might be taken to strengthen the ability of educators to engage in inquiry-based practice within the classroom setting.

Keywords: Academic Educators; Inquiry-Based Working; Professional Development; Teacher Researchers.

SS-03

Analyzing Strategies for Providing Successful Learning in English Language Learning

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Abstract

It is essential to assess pupils' comprehension while teaching English as a second language. The effectiveness of the teachers and the outcomes for the pupils are directly affected by this. This article discusses a variety of methods for evaluating proficiency in the English language, including both traditional and modern techniques. Along with more traditional types of assessment like written and oral exams, there are also portfolios and project-based learning. Formative assessments, such as in-class exercises and quizzes, and technology-enhanced assessments, such as online tests and language learning apps, are also discussed in the article. The article evaluates the effectiveness, advantages, and limitations of each method and provides useful ideas on how they may be merged into a holistic review methodology. The ultimate aim is to provide teachers with a solid understanding of assessment processes that enhance language teaching and learning results, so that students' English language competence may be evaluated appropriately and equitably. The importance of ESL instruction is growing as the globe becomes more linked. But, in the field of education, the supply of high-quality English teaching remains a pressing issue. This project will examine and evaluate several methods of teaching English with the goal of helping students improve their fluency in the language. Through an in-depth examination of the concepts, consequences, theory, and evaluation criteria of effective teaching, this research proposes and evaluates the usefulness of quantitative, qualitative, and mixed assessment methods. With its practical evaluation tools and suggestions for ESL educators, this study helps move the field of ESL teaching forward.

Keywords: Teaching English as a Second Language; Effective Teaching Methods; Evaluation Strategies; Mixed-Method Evaluation.

SS-04

Emotional Cultivation and Personality Development: A Pathway to College Students' Mental Health from the Perspective of Traditional Chinese Culture

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Abstract

The mental health of college students has garnered increasing attention from both society and the educational community. Exploring culturally rooted models of mental health education has become a key issue in the localization of psychological education. Traditional Chinese culture offers unique theoretical resources and practical guidance for college mental health education through its concepts of emotional regulation and personality development. This paper draws on core ideas from Confucianism's "Doctrine of the Mean," Daoism's principle of "following the natural course," and Buddhism's concept of "emptiness and mindful observation" as theoretical foundations. From a psychological perspective, it analyzes their mechanisms in emotion regulation, self-identity construction, and personality enhancement. Based on the current psychological development characteristics of college students, the paper proposes a "culture–psychology" integrated intervention approach. This includes embedding cultural elements into curricula, immersive experiential activities, and reshaping campus cultural spaces to enhance the cultural relevance and effectiveness of mental health education. This study aims to expand the indigenous theoretical framework for psychological education and offer practical pathways for fostering the mental well-being of college students.

Keywords: Traditional Culture; College Students; Mental Health Education; Emotional Regulation; Personality Development.

SS-05

An Investigation of the Relationship Between Mentorship and Job Satisfaction in China's Public and Private University and College Academic Libraries

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SS-06

Analyzing the Relationships Between Nontraditional Students' Gender and Risk Factors for Enrollment in Online Degree Programs

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Abstract

The purpose of this research is to identify the gender-related risk factors that discourage nontraditional students from enrolling in online degree programs. The study uses a mixed-methods approach to identify important factors that impact enrollment choices, including financial restrictions, work-life balance, technical competency, and past academic experience. Women are more likely to mention family duties as a barrier, while males are more likely to mention employment-related obstacles, according to the results. Institutional support services, such as flexible scheduling, financial help, and technology resources, are also emphasized as crucial in the research for reducing the impact of these difficulties.

Keywords: Nontraditional Students; Gender; Risk Factors; Enrollment; Online Degree Programs.

SS-07

An Examination of the Factors that Shape Chinese Students' Learning Opportunities, Including Familial Influences, the Formal Education System and Informal Learning

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Abstract

Considering China's educational opportunities, this research quantifies many aspects of the country's formal and informal education systems. Surveys were administered to pupils in both rural and urban areas using a mixed-methods strategy. There are several important factors taken into account, including parental education level, family income, availability of educational resources, and additional curricular activity involvement. Academic success, as measured by acceptance to elite universities, is strongly correlated with parental education level. According to the results, for every extra year of parental education, there is an average improvement of 0.25 standard deviations in children's test scores.

Keywords: Educational Clients; Chinese System of Learning, Informal Learning, Systematic Educational Environment.

SS-08

Postsecondary Student Engagement Survey (PosSES 2.1) in China

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Abstract

The purpose of this study was to utilize the Postsecondary Student Engagement Survey (PosSES 2.1), which had been translated and culturally modified for usage in China, to investigate the key aspects of engineering college students' involvement in open access (OA) at one private university in China. The results of a poll asking 283 senior engineering students about their involvement in the project and their thoughts on its pros and cons are presented in this article.

Keywords: China University; Engineering Student; Growth; Various Activities.

SS-09

Educational Preferences, Life Events, and Reading Routines of Women in Leadership Designates in Higher Education

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Abstract

Women in leadership positions in higher education manage to read for pleasure in both their professional and personal lives, despite the difficulties of doing so. The reading habits of women in leadership positions within higher education are examined in this study using grounded theory coding, focus groups, and grounded theory methodologies. It delves into the differences between leisure reading and reading for work, as well as how reading for pleasure affects one's ability to strike a work-life balance. Finding out where and what women academic leaders get their reading suggestions is the primary goal of this research. The reading habits and media literacy of education faculty members will be examined in this research utilizing several criteria.

Keywords: Media Utilization; Educational Choices; Life Events; Reading Methods; Female Supervisors.

SS-10

An Analysis of the Consequences of Integrating Children Predisposed to Delays in Growth in Early Childhood Intervention Programs

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Abstract

By analyzing the results of early intervention programs for children at high risk of developmental delays, researchers may get a better understanding of how early support shapes developmental Researchers found that easily available early intervention therapies are necessary to improve developmental outcomes and provide resources for policy allocations that promote increased awareness. Hence, if the Researchers want at-risk children to have a better life and a better chance of success in the long run, the Researchers must engage in early intervention.

Keywords: Obstacles in Growth; Pediatric Development Early Intervention Campaigns; Evaluation of Results.

SS-11

A Survey of Early Childhood Educators' Views on the Types and Degree of Support Necessary for the Complete Inclusion of Children with Special Needs

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Abstract

The purpose of this study is to examine preschool teachers' views on the kinds and levels of support that are crucial for assisting children with special needs to transition into mainstream classrooms. In order to gather demographic information and evaluate help needs, 1,608 instructors participated in a survey that included a 5-point Likert scale and a structured questionnaire. This research adds to the current body of knowledge by illuminating the kinds of support that teachers need to fully integrate students with special needs in the learning process. This research recommends that legislators and school districts revise their strategies for professional development and resource distribution so that all kids in these schools may get a high-quality education.

Keywords: Early Childhood Educators; Degree of Support; Children with Special Needs.

SS-12

A Survey of the Effects of Institutions with Strong Entrepreneurial Connections on the Motivation of Female Entrepreneurs in Starting Own Enterprises

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Abstract

Female entrepreneurship has garnered significant attention from both academia and the public. The number of businesses and entrepreneurial ventures started by women has been rising steadily over the last several years. Female university entrepreneurs as a competitive factor in developing students' professional profiles will be analyzed in this article, with this foundation serving as its cornerstone. The study's authors identify characteristics shared by successful female university entrepreneurs in the areas of motivation, financial resources, and business acumen. Despite being thrifty, diligent, and aiming for business jobs, entrepreneurial women in college face obstacles when seeking financing. Investigate what universities and other organizations can do to inspire female students to adopt an entrepreneurial mindset.

Keywords: Institutions; Entrepreneurial Connections; Female Entrepreneurs.

SS-13

Entertainment or Information? Exploring the Impact Mechanism of Short Video Content Orientation on Adolescents' Mental Health

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Abstract

With the rapid growth of short-form video platforms, adolescents have become the main user group. Increasing attention has been paid to the psychological effects of different content orientations of short videos. Based on the Uses and Gratifications Theory and the framework of Online–Offline Integration, this study constructs a structural model to examine how two types of short video content orientation—entertainment-oriented and information-oriented—influence adolescents' mental health (stress, anxiety, and depression) through the mediating role of online-offline integration.

A total of 801 middle school students from Xuchang City, Henan Province, participated in the survey. Data were collected via questionnaires and analyzed using SPSS 27.0 for descriptive statistics, correlation, and mediation effect tests. The results showed that: (1) entertainment-oriented short video use significantly predicted worse mental health, while information-oriented use was significantly associated with better mental health; (2) online-offline integration partially mediated the relationship between both types of short video use and adolescent mental health.

This study reveals differentiated mechanisms through which short video content orientation affects adolescent mental health, enriches the theoretical understanding of media psychology in youth development, and provides practical implications for media literacy education and psychological intervention.

Keywords: Short Video Use; Content Orientation; Online–Offline Integration; Adolescent Mental Health; Mediation Effect.

ENGINEERING, AI COMPUTING, AND MULTIMEDIA

ET-01

Developing and Improving Algorithms for Safe and Efficient Data Transfer In Ningxia, China's Networked Setting

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Abstract

This study builds and improves algorithms to ensure safe and efficient data transfer over the Ningxia region in China; Ningxia is a unique geographical feature that has an increasingly developing digital landscape. With the ongoing development of the region's technology infrastructures toward the realization of national objectives, the region will be faced with the challenges of non-uniform internet coverage areas, limited bandwidths, and escalating concerns related to cybersecurity issues. Such challenges require a highly innovative algorithmic design that can optimize the process of data transfer procedures without jeopardizing security and integrity in the process. This study applies a thorough quantitative analysis of different algorithms aimed at increasing safety and efficiency while transmitting data. Some of the techniques discussed include advanced techniques in encrypting, error detection and correction algorithms, and adaptive routing protocols tailored to address some of the challenges posed by the Ningxia network environment. Using software statistical analysis, including ANOVA and regression analysis, this research study measures the effect on data transfer: latency, throughput, and robustness in security. Preliminary findings indicate a correlation between improved algorithms and data transfer reliability. At this stage, it suggests that effective algorithm design lies at the heart of developing a safe digital ecosystem within Ningxia. Another significant point is that this research emphasizes the collaborations of various stakeholders government, industry, and academies to support continuous innovations in algorithm development. Conclusion In a nutshell, this study makes a case for investments in complex algorithmic frameworks to leverage safe and efficient data transfer while cementing Ningxia's position as a force in China's digital revolution and economic growth.

Keywords: Developing Algorithms; Improving Algorithms; Safe Data Transfer; Efficient Data Transfer; Ningxia; China's Networked Setting.

ET-02

A Study to Investigate the Role of Machine Learning in Cybersecurity and Identify the Capabilities of Machine Learning in Cybersecurity Beyond Threat Detection

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Abstract

This research explores the revolutionary effects of ML on cybersecurity, particularly as it pertains to its function beyond the conventional detection of threats. Traditional approaches often fail to counteract increasingly complex cyberattacks. Machine learning has the potential to greatly improve cybersecurity techniques by analysing large datasets and identifying trends. Threat prediction, anomaly detection, or automated response are just a few areas that can benefit from using ML approaches, which are the focus of this study. It delves into how ML models can look at past assault patterns and find small signs humans would miss to foresee new attacks. The research also delves into the function of ML in real-time reaction systems, which can learn from fresh data in real-time and adapt to changing threats. The report emphasises that ML can improve threat intelligence, automate regular security chores, and optimise resource allocation, in addition to detection and response. Organisations may achieve more proactive and adaptable security postures by incorporating ML into cybersecurity frameworks. Among these methods is the use of ML for behavioural analysis, which sheds light on user actions and highlights any discrepancies that can indicate security holes. The study concludes with a thorough examination of how machine learning may reshape cybersecurity procedures. It highlights how technology can provide unique solutions for prediction, reaction, and total security management, going beyond just threat detection. The results could help direct ML studies and applications in the future, to develop cybersecurity systems that are more robust and flexible.

Keywords: Machine Learning; Cybersecurity; Capabilities; Threat Detection.

ET-03

From Innovation to Inclusion: The Role of Equitable Technology in Society

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Abstract

Technology will become a crucial part of modern society, shaping the way individuals interact, do business and communicate with others. This paper explores the impact and implications of technological improvement on various societal aspects, including education, healthcare, business, and governance. Although it is undeniable that technology has driven progress, increased efficiency, and improved the quality of every life, one cannot deny that these cutting-edge technologies have negative aspects such as the digital divide, ethical concerns, and privacy issues. This paper's focus is to discuss the positive consequences of the evolution of technology as well as the negative consequences that revolve around the need for responsibility regarding innovation, and policies that will enforce equal access to technology and sustainable technology. This study provides insights into how societies can implement technology for the greater good while minimizing potential risks through the analysis of historical trends and current developments.

Keywords: Digital Divide; Ethical Concerns; Privacy Issues; Policies; Sustainable Technology.

ET-04

Energising Climatic System Assumptions Using Advanced Artificial Intelligence (AI) Strategies: A Learning In Beijing, China

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Abstract

According to a study titled "Enhancing Sustainable Development Network Estimates with Advanced Artificial Intelligence (AI) Methods such as An Investigation in Beijing, China," state-of-the-art AI approaches might potentially be used to make climate change models more accurate. Traditional climate models fail to adequately portray complex, non-linear climate systems; so, this study mainly seeks to enhance the accuracy of climate predictions by using artificial intelligence techniques such as deep learning networks and mathematical algorithms for machine learning. The study investigates the challenges of weather prediction in the Beijing region, where rapid urbanisation and pollution lead to significant climatic fluctuations, encompassing precipitation, temperature, and air quality. By applying AI technology to large volumes of meteorological data, researchers can improve the ability to predict future climate scenarios, conduct more accurate risk assessments, and make better decisions about adaptation and mitigation strategies. This paper highlights the successful use of AI in environmental studies, demonstrating how AI may revolutionise climate policy via improved prediction models and tailored to Beijing's unique climatic conditions. Climate change is already a major threat, and it has already cost the world economy over $500 billion. Urban and natural systems are both being negatively impacted. AI might help with some of these issues as it uses a plethora of internet resources to provide timely suggestions based on accurate climate change predictions. This review focuses on current studies and the uses of artificial intelligence in climate change mitigation, as well as energy conservation, carbon absorption and storage, transport, grid administration, building design, transport, precision agriculture, industrial processes, resilient cities, and reducing deforestation.

Keywords: Worldwide Warming; Climate Change; Severe Meteorological Events; Severe Weather; Artificial Intelligence; Machine Learning; Climate Modelling.

APPRECIATION

Assalamu alaikum Warahmatulahi Wabaroka'tuh, Salam Sejahtera, and very good day to everyone.

It is both an honor and a heartfelt privilege to stand before you today as we bring to a close the 2nd International Conference on Emerging Trends in Management, Technology, Social and Health Sciences — ICETMTSHS 2025.

On behalf of the organizing team, I would like to extend my deepest appreciation and gratitude to the entire Lincoln University College management. Your unwavering support, visionary leadership, and commitment to academic excellence have been the cornerstone of this event's success. Thank you for fostering an environment where innovation, collaboration, and intellectual exchange can truly thrive.

To our esteemed collaborators, Universitas Baiturrahmah, Padang, STIKes Widya Dharma Husada Tangerang, Universitas Murni Teguh, and Institut Kesehatan Payung Negeri, Pekanbaru — your partnership and shared enthusiasm for advancing interdisciplinary knowledge have added great depth and diversity to this conference. Your contributions have not only enriched our sessions but have also opened doors for future collaborations across borders and disciplines.

To our brilliant participants — researchers, academicians, students, and industry professionals — thank you for your active engagement, insightful discussions, and thought-provoking presentations. Your enthusiasm and curiosity have transformed this conference into a vibrant platform for learning and discovery. We are grateful for your presence and for sharing your expertise with us.

And to our dedicated committee members — the tireless heroes behind the scenes — thank you for your hard work, meticulous planning, and passionate commitment to excellence. From conceptualization to execution, your efforts have been instrumental in making this event not just possible, but exceptional.

Each one of you has played a vital role in making ICETMTSHS 2025 a remarkable success. As we reflect on the enriching knowledge exchanged over these past few days, let us carry forward the spirit of innovation, collaboration, and continuous learning.

May this conference be a stepping stone for many more meaningful conversations, groundbreaking research, and impactful partnerships in the years to come.

Thank you once again for being a part of this journey. Here's to continued growth, discovery, and shared success.

Assoc. Prof. Dr. Idris Adewale Ahmed
Secretariat, ICETMTSHS 2025

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