



ISO 9001:2015 Certified

2nd International Conference on Recent Advancement in Sustainable Healthcare (ICRASH 2025)

Focal Theme: *Sustainable Green Practices in Healthcare and Management*

Abstract Book



Venue:

Summit Hotel Subang USJ, Malaysia

Date:

22nd & 23rd January 2025

Organized by:

Lincoln University College, Malaysia

in collaboration with

STIKes Pekanbaru Medical Center, Riau, Indonesia

&

St. Xavier's University Kolkata, India

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Datuk Dr. Hjh. Bibi Florina Abdullah

Pro Chancellor

Lincoln University College, Malaysia

Message

I extend my warmest greetings and heartfelt welcome to the distinguished guests, esteemed colleagues, scientists, academicians, healthcare practitioners, and students, to the 2nd International Conference on Recent Advancement in Sustainable Healthcare (ICRASH 2025). As the Pro-Chancellor of Lincoln University College, Malaysia, it is both my honour and privilege to address you today.

First and foremost, I would like to express my sincere gratitude to the organisers for giving me the opportunity to be part of this remarkable gathering. It is truly humbling to stand before such an exceptional group of individuals who are dedicated to the advancement of sustainable practices in healthcare and management.

The theme of this year's conference, 'Sustainable Green Practices in Healthcare and Management,' is both timely and critical. In an era where climate change and environmental degradation pose significant threats to human health and well-being, it is imperative that we align healthcare practices with sustainable principles. The theme highlights the urgent need to adopt green innovations and policies that can mitigate environmental impact while enhancing the quality and accessibility of healthcare services.

ICRASH 2025 provides us with an invaluable platform for knowledge exchange, collaboration, and exploration of innovative ideas that can drive the transformation of healthcare systems worldwide. This conference is designed to bring together leading experts, researchers, and practitioners from various fields to discuss the latest advancements, challenges, and opportunities in the domain of sustainable healthcare.

In today's rapidly evolving world, the importance of sustainable healthcare cannot be overstated. As we confront complex global health challenges and the increasing pressure on healthcare systems, it is essential that we adopt interdisciplinary approaches and work collaboratively towards solutions that are both effective and environmentally responsible. This conference will serve as a catalyst for fostering new research directions, facilitating discussions on pressing issues, and creating opportunities for future collaborations that will benefit healthcare worldwide.

To the scientists and researchers among us, I encourage you to share your ground-breaking work and insights. Your contributions have the potential to revolutionize how we approach healthcare, ensuring that our systems are both sustainable and resilient. To the academicians, your expertise and vision will guide the minds of future generations, shaping the way we think about and practice healthcare. To the healthcare practitioners, your experiences are invaluable as we strive to improve patient outcomes and make healthcare more efficient and effective. And to the students, you are the future of innovation—this conference is an opportunity for you to learn, engage, and contribute to the larger discourse on sustainable healthcare.

In this time of growing healthcare challenges, there is an urgent need for research and action that addresses the public health issues arising from unsustainable practices. This conference will focus on aligning research priorities, enhancing quality and safety in healthcare, and ensuring that sustainability is embedded within healthcare management. We will also investigate initiatives from high-, middle-, and low-income countries, where the healthcare sector is projected to experience significant growth, to uncover solutions that can be applied on a global scale.

I invite all of you to actively participate, engage in thought-provoking discussions, and challenge the status quo. Let us use this unique platform to learn from one another, exchange ideas, and foster collaborations that will lead to sustainable advancements in healthcare.

In conclusion, I extend my warmest welcome once again to all of you. As we come together in this collaborative space, may this conference serve as a source of inspiration and productivity, fostering meaningful discussions and innovative ideas. Together, we have the opportunity to explore and address the critical challenges in healthcare, focusing on sustainability, quality, and safety. May the insights gained here lead to actionable outcomes that contribute to the advancement of sustainable healthcare practices worldwide.

Thank you.



Prof. Dr. Amiya Bhaumik
President
Lincoln University College, Malaysia

Message

Distinguished delegates, ladies, and gentlemen:

On behalf of Lincoln University College, Malaysia, it is my honour and privilege to warmly welcome you to the “2nd International Conference on Recent Advancement in Sustainable Healthcare (ICRASH 2025)”. This year's conference, themed on “Sustainable Green Practices in Healthcare and Management,” reflects the urgent need to harmonize healthcare advancements with environmental sustainability for the betterment of society and future generations.

Standing before you as the President of Lincoln University College, Malaysia, I extend my heartfelt gratitude and immense pleasure in welcoming these brilliant minds, renowned experts, and dedicated practitioners to this prestigious event. This two-day conference is a testament to our collective commitment to fostering innovation and progress in sustainable healthcare and management, in enlightenment with the Sustainable Green Practices in Healthcare and Management.

Establishing a healthcare ecosystem that is both efficient and sustainable presents a set of intricate and multifaceted challenges. ICRASH 2025 serves as a vital platform for knowledge exchange, interdisciplinary collaboration, and the dissemination of groundbreaking ideas that hold the potential to revolutionize healthcare practices globally.

As we embark on this intellectual journey together, let us acknowledge the pivotal role each of you plays in advancing this agenda. This conference gathers a wealth of expertise from scientists, academicians, healthcare professionals, and policymakers, each contributing unique perspectives and solutions to global healthcare challenges. Your invaluable contributions, innovative research, and practical experiences will shape the discourse and outcomes of this event.

The theme of “Sustainable Green Practices in Healthcare and Management” underscores the importance of integrating eco-friendly practices into healthcare systems, ensuring not just the health of individuals but also the sustainability of our environment. This conference aims to promote well-being for all, advocate for universal health coverage, and highlight the importance of accessible, safe, effective, and affordable healthcare. Together, we aim to develop strategies for improved sanitation, increased accessibility to healthcare, and innovative funding systems to support health infrastructure and save lives.

I take this opportunity to extend my deepest appreciation to the organizers and the entire conference committee for their unwavering dedication and meticulous efforts in making ICRASH 2025 a grand success. To every delegate and participant, thank you for gracing this event with your presence and for your valuable contributions to the discussions and deliberations.

Let this conference inspire new discoveries, foster innovative solutions, and spark enduring collaborations that will transform healthcare and uphold sustainable practices for the betterment of our world. Together, we can generate meaningful change and leave a lasting impact.

Thank you, and I wish you all a productive and enlightening conference.



Dato (Amb) Dr. Mohd Yusoff Bin A. Bakar

Vice Chancellor & CEO

Lincoln University College, Malaysia

Message

The 2nd International Conference on Recent Advancement in Sustainable Healthcare (ICRASH 2025), a two-day event, has officially commenced. It is an immense honour to announce the beginning of this prestigious international conference, themed "Sustainable Green Practices in Healthcare and Management."

This conference focuses on integrating sustainability into healthcare, highlighting recent advancements and exploring innovative green practices in healthcare management. In the rapidly evolving corporate world, the transformation of healthcare services is becoming increasingly user-centric and environmentally conscious.

The primary objective of ICRASH 2025 is to offer a platform for esteemed professionals, researchers, and academics to exchange groundbreaking ideas, share practical experiences, and forge meaningful collaborations. This event opens avenues for fostering future partnerships with global stakeholders and strengthens the synergy between academia and industry. Moreover, the conference serves as a bridge, connecting diverse disciplines such as biology, health policy, nursing, medicine, microbiology, pharmaceutical sciences, and various other healthcare-related fields.

We extend a heartfelt invitation to researchers, academics, and professionals from all corners of the globe to join us in this important and meaningful discourse. This platform offers an exceptional opportunity to broaden our collective knowledge, share invaluable resources, and foster stronger networks that will drive impactful change. By engaging in thoughtful discussions, we can collectively explore innovative solutions, exchange ideas, and build collaborative relationships that transcend borders. Collectively, we have the power to shape a future where healthcare is a universal, sustainable right, benefiting individuals and communities worldwide. Through our combined efforts, we can contribute to lasting improvements in healthcare systems, ultimately creating a healthier, more prosperous society for generations to come.

Thank you for your active participation, unwavering dedication, and tireless efforts in shaping the future of sustainable healthcare. Your contributions will pave the way for a healthcare system that not only meets the needs of the present but also anticipates the challenges of tomorrow. Together, we are fostering innovation, embracing greener practices, and building resilience to ensure that healthcare remains accessible, efficient, and environmentally conscious. As we move forward, let us remain united in our commitment to creating a healthier, more sustainable world for generations to come. Let this conference be a stepping stone toward achieving our shared vision of a brighter and healthier future.

Clinical Intervention Strategies for Depression and Anxiety in Mothers of Children with Autism Spectrum Disorder

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Abstract

The present research investigates the psychological burden experienced by mothers of children with Autism Spectrum Disorder (ASD), with depression and anxiety prevalence rates of 70% and 50%, respectively. Using a mixed-methods design, 150 participants were randomized into Cognitive Behavioral Therapy (CBT), Mindfulness-Based Stress Reduction (MBSR), or Peer Support interventions over a 12-week period. Findings from this research highlight significant reductions in depression and anxiety scores across all groups, with CBT and MBSR demonstrating the greatest efficacy, showing reductions of 35% and 42%, respectively. This research underscores the importance of caregiver-focused interventions and provides actionable insights for policymakers and practitioners.

Keywords: *ASD; Maternal Mental Health; Cognitive Behavioral Therapy (CBT); Mindfulness-Based Stress Reduction (MBSR); Peer Support Groups; Depression; Anxiety; Family Dynamics*

The Impact of Acupuncture at Acupoint Zhongwan and Zusanli on Intestinal Microbiota, Serum Neurological Related Cytokines, and Therapeutic Efficacy in Chronic Atrophic Gastritis

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Abstract

Background: Chronic atrophic gastritis (CAG) was a prevalent gastrointestinal disorder associated with an increased risk of gastric adenocarcinoma. While conventional Western medicine (WM) was a mainstay in CAG management, complementary therapies such as acupuncture have gained attention for their potential adjunctive role. However, the specific effects of acupuncture on intestinal microbiota, serum neurological-related cytokines, and therapeutic efficacy in CAG remain under investigation.

Methods: Patients diagnosed with CAG and admitted to our hospital between January 2023 and June 2023 were categorized into four groups based on the different treatment modalities they received: WM group (n=64), WM combined with acupuncture at Zhongwan acupoint group (n=65), WM combined with acupuncture at Zusanli acupoint group (n=67), and WM combined with acupuncture at both Zhongwan and Zusanli acupoints group (n=66). Intestinal microbiota analysis, serum neurological-related cytokine measurement, and therapeutic efficacy assessment were conducted to evaluate the impact of acupuncture on these parameters. **Results:** Intestinal microbiota analysis revealed significant differences in Firmicutes, Bacteroidetes, Actinobacteria, Proteobacteria, and *p*-Proteobacteria levels between the groups ($p < 0.05$). Serum neurological-related cytokines showed significant reductions in TNF- α , IL-6, BDNF, NGF, and NSE levels in the acupuncture groups ($p < 0.05$). The combined acupuncture group demonstrated the highest therapeutic efficacy in terms of remission and response rates ($p < 0.05$). **Conclusion:** Acupuncture at Acupoint ZW and ZSL may modulate the intestinal microbiota, serum neurological-related cytokines, and enhance the therapeutic outcomes of patients with CAG undergoing conventional WM treatment.

Keywords: Acupuncture; Acupoint Zhongwan; Acupoint Zusanli; Intestinal Microbiota; Serum Neurological Related Cytokines; Therapeutic Efficacy; Chronic Atrophic Gastritis

Role of Radiologic Technologist Specialist in Plain Image Interpretation of Adults in the Middle East: A Radiologist's Perspective

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Abstract

Background Radiologic technologists are medical professionals who perform diagnostic imaging tests such as X-rays, magnetic resonance imaging (MRI), and computed tomography (CT) scans. While image interpretation by radiologic technologists is recognised in some countries, such as the United Kingdom, it remains a controversial issue in the Middle East. This study evaluates the perceptions of radiologists in the Middle East regarding the plain image interpretation of adults by radiologic technologist specialists. **Methods:** This cross-sectional study employs a quantitative approach. A close-ended questionnaire was distributed to 103 radiologists from various hospitals in Saudi Arabia and Sudan. The data were analysed using the Statistical Package for Social Sciences (SPSS). **Results:** The results showed that 29% of participants recognised the role of Radiologic Technologist Specialists (RTS) in writing image reports, while 61% did not. Additionally, 38% believed that RTS image interpretation could help diagnose previously unreported radiographs. A total of 47% responded that allowing RTS to report images could reduce the workload and stress on radiologists, while 37% disagreed. Lastly, 43% believed that RTS image interpretation could be introduced in the Middle East in the future. **Conclusion:** The findings of this study suggest that combining image reporting with radiography improves patient care. The results also indicate that delegating image reporting to radiologic technologists may reduce the burden on medical practitioners. Further research is needed in the Middle East to explore and assess the factors related to implementing this practice.

Keywords: *Image interpretation; Middle East; Radiologic Technologist; Radiologist*

Clinical Efficacy of Integrating Traditional Chinese and Western Medicine in Fracture Treatment

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Abstract

The present research aims to comprehensively evaluate the clinical outcomes of integrating Traditional Chinese Medicine (TCM) and Western medicine in the treatment of fractures by combining quantitative and qualitative methods. A sample of 200 patients was divided into three groups: TCM-only, Western medicine-only, and integrative treatment. Statistical analyses, including descriptive statistics, factor analysis, and hypothesis testing, were conducted to compare recovery time, pain reduction, and functional improvements across the groups. Additionally, semi-structured interviews with patients and healthcare providers provided valuable qualitative insights. The outcomes demonstrated conclusively that the integrative treatment group achieved significantly faster recovery times (9.2 ± 1.2 weeks) and greater pain reduction ($80\% \pm 4.3$) compared to the TCM-only and Western-only groups. Factor analysis identified treatment type, patient age, and fracture severity as crucial factors influencing outcomes. Interviews highlighted the importance of patient satisfaction with the holistic benefits of integrative care, such as improved mobility and reduced reliance on pain medication. This research underscores the potential of integrative medicine to substantially improve fracture management by combining the precision of Western medical practices with the holistic healing principles of TCM. However, limitations, including sample size and variability in treatment protocols, point to the need for further large-scale studies to validate these outcomes and develop standardised integrative treatment protocols.

Keywords: *Clinical Efficacy; Factor Analysis; Fracture Healing; Functional Recovery; Hypothesis Testing; Integrative Treatment; Mixed-Methods Research; Pain Management; Traditional Chinese Medicine; Western Medicine*

The Impact of Non-Pharmacological Combined Interventions on Elderly Women with Hypertension

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Abstract

This study looks at how a non-drug combined intervention with Pilates training and nutritional therapy affects older women with high blood pressure in terms of their quality of life, number of symptoms, and psychological stress. A 4-week non-randomised controlled trial was conducted, comparing outcomes between a control group (routine blood pressure monitoring) and a combined intervention group. The results demonstrated significant improvements in the combined intervention group: systolic blood pressure decreased by 10 mmHg on average ($p < 0.001$), weekly symptom frequency reduced to less than once ($p < 0.001$), stress scores dropped significantly ($p < 0.001$), and quality of life scores increased markedly ($p < 0.001$). In contrast, no significant changes were observed in the control group. These findings indicate that the combined intervention provides a safe, effective, and feasible approach to managing hypertension in elderly women, offering important insights for the non-pharmacological treatment of chronic conditions.

Keywords: *Combined Intervention; Elderly Women; Hypertension; Non-Pharmacological Therapy*

The Development of Infants' Self-Recognition and its Relationships with Mother-Infant Attachment

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Abstract

Self-psychology emphasises the critical role of early caregivers in shaping a child's sense of self through functions such as mirroring and idealisation. Research on how babies grow and learn provides strong evidence for the early development of self-related skills. It also shows how important it is for analysts and clients to have good relationships, which helps to integrate psychoanalytic ideas. Studies have demonstrated that mother-infant dyads with disorganised attachment exhibit discordant adrenocortical responses, revealing the intricate interplay between attachment patterns and physiological processes. Similarly, it has been suggested that the quality of the parental relationship interacts with parenting self-efficacy to influence the attachment bond between infants and mothers, emphasising the role of contextual factors in attachment outcomes. Despite the established importance of self-recognition and attachment in infancy, their interrelationship and developmental trajectories remain insufficiently understood. While existing literature offers valuable insights into each construct independently, further research is needed to explore their intersection and mutual influence. This study investigates the developmental trajectory of infant self-recognition and its correlation with maternal and infant attachment during the critical developmental window of 0 to 3 years. The study focuses on infants aged 15–23 months and their mothers, employing observational methods, standardised assessments, and potentially experimental designs to collect data. The anticipated findings aim to enhance our understanding of the interplay between self-recognitive development and attachment dynamics. Moreover, this research seeks to provide a theoretical foundation and practical guidance for early intervention and child development practices.

Keywords: *Developmental Variability; Infant Self-Recognition; Mother-Infant Attachment*

The Impact of Quality Control Measures on Sterilization Efficiency in Hospital Central Sterile Supply: A Comparative Study

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Abstract

The management of medical devices is crucial to safe, high-quality surgical care but has received little attention in the medical literature. This study investigates the effect of quality control on the sterilisation management model in Central Sterile Supply (CSS). A traditional management model was applied from January 2020 to December 2020, and a newly developed quality control model was applied from January 2021 to December 2021. The sterilisation quality of 150 medical supplies was compared before (January 2020 to December 2020) and after (January 2021 to December 2021) the implementation of the quality control model. The sterilisation quality of medical supplies significantly improved after the implementation of the quality control model ($P < 0.05$). The recovery quality score after the implementation of the quality control model (95.7 ± 2.9) was significantly higher than the traditional management (80.1 ± 2.5). The cleaning quality score after the implementation of the quality control model (97.2 ± 1.6) was significantly higher than the traditional management (80.5 ± 2.3). The packaging quality score after the implementation of the quality control model (97.2 ± 1.6) was significantly higher than the traditional management (81.6 ± 2.1). As well as the cleaning pass rate after the implementation of the quality control model (98.69%) was significantly higher than the traditional management (88%). A management model that incorporates the specific requirements of specialised medical devices can significantly enhance quality control in the CSS departments. The continuous training provided under this quality control model effectively increased the knowledge and skills of the CSS professional. To gain sustained improvements in quality management, it is essential to focus on the continuous development of staff expertise. Providing staff training can help reduce burnout, motivate them to actively participate in professional development and performance evaluations, and eventually enhance the CSS's management and sterilisation quality. The proven effectiveness of quality control models in elevating sterilisation standards highlights their potential for wider implementation.

Keywords: Central Sterile Supply; Disinfection and Sterilisation; Quality Control Model

Development of Microemulsion Based Hydrogel Film Drug Delivery System of Diacerein to Improve Drug Efficacy and Bioavailability

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Abstract

Background: Diacerein is an anti-rheumatic medication that has demonstrated potential in mitigating RA symptoms, however, the anthraquinone ring structure of the drug causes a lot of systemic side effects if taken orally. This research is oriented to improve Diacerein's solubility and skin permeability by creating a formulation based on a combination delivery of microemulsion and hydrogel film for topical administration. **Materials and Procedures:** Considering the microemulsion systems had an adequate solubilizing capacity, castor oil was used as the oil phase of the microemulsions. PEG 600 as the cosurfactant and Span 80 as the surfactant were used to create the phase diagrams. Water titration method was used to develop the pseudo-ternary phase diagrams. A range of distinctive microemulsion formulations were created and refined using a central composite design where dependent variables were particle size and % drug content. Optimization of microemulsion was done using a 2-level factorial design. Optimized batch F7 of microemulsion formulation was finalized and Sodium Alginate (at different concentrations 1, 1.5, and 2 %w/v), as a gelling matrix, was incorporated to develop the microemulsion-based hydrogel and then dried using a hot air oven to convert it to film to improve the microemulsion's viscosity for topical administration. Based on the analysis, microemulsion-based hydrogel film was evaluated for drug content, in vitro drug release, FTIR, and SEM. **Results:** The results showed that the investigated microemulsion-based hydrogel film (2% w/v Sodium alginate) may serve as a viable topical delivery system for diacerein and has the potential for sustained drug release.

Keywords: *Diacerein; Hydrogel Film; Microemulsion; Topical Delivery*

Factors that Influence the Occurrence of Symptoms of Frailty Syndrome in Menopausal Women in Rokan Hulu Regency

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Abstract

Decreased body function in the elderly is frailty syndrome. Frailty syndrome occurs physiologically due to the aging process which causes elderly people to be at risk of developing frailty syndrome. Signs of an elderly person experiencing this syndrome are: fatigue, loss of appetite, low physical activity, poor grip and functional difficulties. Risk factors for frailty are age, parity and comorbidities. Prognostic factors for worsening frailty conditions are age 70 years or more, negative quality of life (moderate or poor quality of life), and slow walking speed. The aim of this study is to determine several underlying factors in the symptoms of frailty syndrome in menopausal women. The population in this study were menopausal women in Rokan Hulu Regency. The sample for this research was 59 people using accidental sampling technique. The results of this study showed that 28 respondents experienced symptoms of frailty syndrome (47.5%). The average weight loss was 1.9 kg (0-10 kg), the highest number of posyandu visits ever, namely 32 people (54.2%). The factor of comorbidities and symptoms of frailty syndrome shows a close relationship with a value of $p = 0.025$ ($p < 0.05$) and OR = 3.2, meaning 3.2 times the risk for those who do not have hypertension. Meanwhile, parity is very closely related to the symptoms of fertility syndrome with a p value = 0.050, which means that parity below the same as 3 people has a 3.8 times greater risk than those with parity ≤ 3 people, and the factor of weight loss is very closely related to the symptoms of the syndrome. frailty, namely the p value = 0.00, meaning there is a significant relationship. Suggestions for menopausal women to maintain healthy nutritional intake and physical activity to reduce symptoms of frailty syndrome.

Keywords: *Frailty Syndrome; Hypertension; Parity; Weight Loss; Women Menopausal*

Adolescent Reproductive Health Knowledge of Risky Behavior in Adolescents School District 1 N Ujungbatu Rokan Hulu

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Abstract

Adolescent risk behavior is caused by a low teenage knowledge of reproductive health, So that it can trigger unwanted things between sexually transmitted diseases and teen births that result in unintended pregnancy. The health problems of teen reproduction in Indonesia need sufficient attention, because teen reproductive health issues are just like any other medical problem. The health problems of reproduction are not limited to pregnancy and childbirth. Adolescents need to get to know their bodies and reproductive organs, Physical and psychological changes, In order to protect yourself from risks that threaten the health and safety of reproductive organs. The purpose of research to know the health knowledge of teen reproduction is to prevent risky behavior in young people at one end of a rock. This type of research is analytic quantitative research, the design used in this study is cross sectional, The number of samples in this study uses the total sampling technique of sample criteria by making all students/students a sample of 120 people. The analysis data uses the chi square test. Studies show that adolescents with low reproductive health knowledge have a high risk behavior of 49 people (40.9%) low risk behavior of 15 people (12.5%), And teenagers with high knowledge have a high-risk behavior of 3 people (2.49 %), Low-risk behavior of 53 people (44.19 %). static analysis resulted in a value of p value 0,000,0001 which means there's a meaningful relationship between teen health knowledge and teenage behavior at risk in teenagers at one end of a rock. This research suggestion can serve as a cornerstone for providing information and fostering meaningful discussions about reproductive health, aiming to prevent students from engaging in risky adolescent behaviors.

Keywords: Adolescent; Risk Behavior; SMKN 1 Ujungbatu

Analysis of the Impact of Early Marriage on Adolescent Reproductive Health in Rokan Hulu Regency, Riau Province, Indonesia

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Abstract

Early marriage is a marriage that takes place at an age below the reproductive age, namely less than 20 years for women and less than 25 years for men. Marriage at an early age is vulnerable 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 easily experiencing stress. Early marriage can also have a negative impact on teenagers' psychology, health and economy. Early marriage is a social issue that still occurs in many developing countries, including Indonesia. This study aims to analyze the impact of early marriage on adolescent reproductive health, with a focus on the physical, psychological complications, as well as the social and economic impacts experienced by adolescent girls who marry before the age of 20. The method used in this research is a qualitative approach with data collection techniques through in-depth interviews, focus group discussions (FGD), and participatory observation of several married teenagers under the age of 20 in Rokan Hulu Regency, Riau Province, Indonesia. Research results show that early marriage carries a high risk of physical health complications such as preeclampsia, premature birth, as well as psychological problems such as depression and anxiety. In addition, early marriage also limits educational opportunities and contributes to economic dependency. Socio-cultural factors and societal norms are the main causes of the high rate of early marriage. This research suggests the need for better sex education, increased access to reproductive health, and social change to reduce early marriage in Indonesia.

Keywords: *Adolescents; Early Marriage; Reproductive Health*

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Abstract

Background: Psychological well-being of nursing students is an important factor influencing the quality of their education and performance in the clinical environment. However, high academic pressure and the demands of clinical practice can cause stress that impacts psychological well-being. Understanding psychological well-being can be the basis for developing appropriate support for students in facing educational challenges. **Objective:** This study aims to describe the psychological well-being of nursing students in Bandung City. **Methods:** This study used a descriptive research design with convenience sampling technique. The sample of this study was 50 respondents who were nursing students in Bandung City. Data collection was carried out by distributing the Psychological Well-Being Scale questionnaire consisting of 42 question items that measure the dimensions of psychological well-being. Data analysis was carried out by frequency distribution test to describe the characteristics of respondents and their level of psychological well-being. Results: The results showed that the majority of respondents were aged between 21 and 23 years (60%) and most were female (84%). Most respondents (56%) were in the moderate psychological well-being category, with 24% in the low category and 20% in the high category. Factors that influenced psychological well-being included academic stress and clinical practice demands. **Conclusion:** This study confirms that the psychological well-being of nursing students in Bandung City varies, with most being in the moderate category. The development of more effective psychological support programs is needed to help students cope with academic and clinical stress. This study provides a basis for the development of nursing education policies that are more sensitive to the psychological well-being needs of students.

Keywords: Nursing; Psychological Wellbeing; Students

Factors Associated with Medication Adherence among People with Schizophrenia Co-morbidity with Type 2 Diabetes Mellitus: A Systematic Review

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Abstract

Background: Non-adherence to medication among people with both schizophrenia and type 2 diabetes mellitus (T2DM) remains a significant clinical challenge, affecting 40-60% of the population. This dual diagnosis presents unique medication management challenges that require systematic investigation.

Aim: To identify and synthesize evidence regarding facilitators and barriers to medication adherence among people with comorbidity schizophrenia and T2DM. **Method:** A systematic search across five electronic databases (PubMed, EMBASE, PsycINFO, CINAHL, Cochrane Library) for observational studies published from January 2014 to December 2023 was conducted. Inclusion criteria were: observational design, adult patients with both conditions, medication adherence factors, and English or Thai language. The Newcastle-Ottawa Scale guided quality assessment. **Results:** Analysis of fourteen observational studies (N=7,845) revealed three primary facilitators: (1) consistent outpatient follow-up, (2) robust social support networks, and (3) structured medication management programs. Key barriers included substance use, cognitive impairment, and socioeconomic constraints. Quality assessments indicated predominantly moderate to high methodological rigor across the studies. **Conclusion:** This review identifies actionable factors affecting medication adherence in this complex population. The findings have important implications for clinical practice and policy development. Healthcare system should implement integrated care protocols combination of psychiatric and diabetes care, strengthen family support care programs, and establish routine adherence monitoring. Policy makers should consider developing guidelines for coordinated care delivery and resource allocation to address socioeconomic barriers. These evidence-based recommendations can guide the development of targeted interventions to improve medication adherence and overall health outcomes in the vulnerable population.

Keywords: *Diabetes Mellitus; Medication Adherence; Schizophrenia; Systematic Review*

Factors Associated with Adherence of Pregnant Women in Taking Iron Tablets in Lembursitu Health Center Working Area Sukabumi City

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Abstract

Introduction: The high rate of anemia among pregnant women is caused by low compliance in taking Fe tablets. This reflects the awareness and discipline of pregnant women. Various factors influence the adherence of pregnant women in consuming Fe tablets, such as mother's education, parity, self-efficacy, and husband's support. The purpose of the study was to determine the relationship between maternal education, parity, self-efficacy, and husband's support with the compliance of pregnant women in taking Fe tablets. **Methods:** Type of correlational research with a cross sectional approach. The population and sample were 82 people using total sampling. Data collection techniques using questionnaires. Data analysis used univariate analysis with frequency distribution, bivariate analysis with Chi Square, and multivariate analysis with logistic regression. **Results:** The results showed that there was a relationship between maternal education, parity, self-efficacy, and husband's support with the compliance of pregnant women in taking Fe tablets (p -value<0.05). There is a simultaneous relationship between maternal education, parity, self-efficacy, and husband's support with the compliance of pregnant women in taking Fe tablets (p -value<0.05). The dominant variable associated with adherence of pregnant women in taking Fe tablets is parity (OR=23.545). **Conclusion:** There is a relationship between mother's education, parity, self-efficacy, and husband's support with adherence of pregnant women in taking Fe tablets. There is a simultaneous relationship between maternal education, parity, self-efficacy, and husband's support with the compliance of pregnant women in taking Fe tablets. The dominant variable associated with adherence of pregnant women in taking Fe tablets is parity. Puskesmas is expected to organize routine education related to the importance of Fe tablet consumption for pregnant women.

Keywords: Adherence; Factors; Fe Tablet; Pregnant; Women

Digital Health Strategies on Self-Care Management among Chronic Kidney Disease Patients: A Systematic Review

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Abstract

Background: Chronic kidney disease (CKD) is a progressive condition that requires continuous self-care management to delay disease progression and improve patient's quality of life. In recent years, digital health has emerged as a promising solution to enhance self-care management by leveraging digital platforms to provide remote education, monitoring and support. However, the effectiveness and implementation of digital health strategies vary widely, and their integration with conventional methods remain a topic of interest. Understanding the role of digital health in empowering CKD patients and addressing gaps in self-care management is essential to optimize patient outcomes. **Research Methods:** The systematic review was conducted following the PRISMA guidelines. Searches were performed across Cochrane, PubMed, ProQuest, ScienceDirect, and Wiley Online Library databases for studies published between 2019 and 2024. Out of 1,484 articles identified, 10 articles met the inclusion criteria for review. **Results:** The results indicate that the types of digital health used in the intervention group include websites, mobile apps, e-modules, and telehealth platforms. The impact of using digital health includes improvements in quality of life, self-management behavior, psychological functioning, and effective patient monitoring. Digital health interventions were supplemented with manual activities, such as telephone calls, text message, video calls, and regular home visits. **Conclusion:** Future strategies should focus integrating dynamic content, real-time personalization, and user-friendly interfaces. Combining digital health tools with proactive emotional support, will ensure a holistic and sustainable impact.

Keywords: *Chronic Kidney Disease; Digital Health; Quality of Life; Self-Care Management*

Paradigm Complementary Nursing Therapy Services in the Community: Scoping Review

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Abstract

The increase in the number of chronic disease diagnoses has posed significant challenges for patients, which are often accompanied by physical and psychological burdens. In supporting complementary care, complementary therapy contributes to accelerating patient recovery. This study uses a scoping review approach to analyze the community's complementary nursing therapy services paradigm. The literature search was done through the Scopus database, focusing on journals published between 2020 and 2024 with quarts 1 and 2. The findings suggest that complementary therapy provides significant support in reducing anxiety, depression, and chronic pain, as well as improving patients' musculoskeletal function. This therapy is widely chosen because it effectively supports medical treatment without causing significant side effects in societies in various countries, including Brazil, America, and Indonesia. Despite the great potential of complementary therapies, the main challenge is the need for more integration between these two approaches in conventional healthcare systems. This study shows that integrating complementary and traditional medical therapies can improve patient's quality of life. Still, the main challenge lies in the lack of systematic integration, knowledge of medical personnel, and accessibility and socio-cultural factors affecting these therapies' acceptance. Successful implementation requires education, ongoing training, and supportive policies to ensure safety and effectiveness.

Keywords: *Complementary Therapy; Paradigm; Society*

Psychometric Properties of End Stage Renal Disease-Adherence Questionnaire- Indonesian Version among Patients Receiving Haemodialysis

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Abstract

Background: The End-Stage Renal Disease-Adherence Questionnaire (ESRD-AQ) is a multidimensional tool designed to assess adherence behaviors. However, its applicability in Indonesia requires validation to account for cultural and linguistic differences. **Objective:** To evaluate the psychometric properties of the Indonesian version of the ESRD-AQ among patients undergoing hemodialysis in Indonesia. **Methods:** A cross-sectional study was conducted among 250 patients receiving maintenance HD in Indonesia. The ESRD-AQ was translated and culturally adapted following standardized procedures. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were used to assess construct validity. Internal consistency was evaluated using Cronbach's alpha, and item-total correlations were calculated to determine item contribution to the scale. **Results:** The EFA identified a four-factor structure, accounting for 67.4% of the total variance, with factors representing adherence to HD sessions, medications, fluid restrictions, and diet. The CFA confirmed the factor structure, with acceptable model fit indices ($\chi^2/df = 2.54$, CFI = 0.93, TLI = 0.91, RMSEA = 0.05). Internal consistency was high, with an overall Cronbach's alpha of 0.81 and subscale reliabilities ranging from 0.72 to 0.85. Item-total correlation coefficients ranged from 0.48 to 0.71, indicating strong alignment of items with the overall scale. **Conclusion:** The Indonesian version of the ESRD-AQ demonstrated robust psychometric properties, including reliability and validity. It is a culturally appropriate tool for assessing adherence behaviors among Indonesian HD patients, supporting its use in both clinical practice and research to inform adherence-enhancing interventions.

Keywords: Adherence; End-stage Renal Disease; ESRD-AQ; Hemodialysis; Indonesia; Psychometric Validation

Factors Affecting the Quality of Life of Children with Major Thalassemia at Bhayangkara Setukpa Lemdikpol Hospital, Sukabumi City

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Abstract

Introduction: Thalassemia major requires sufferers to perform routine blood transfusions which can affect their quality of life. Some factors that affect the quality of life of people with thalassemia major include self-concept, transfusion compliance, family support, and parenting. The purpose of this study was to determine the effect of self-concept, transfusion compliance, family support, and parenting on the quality of life of children with thalassemia major at Bhayangkara Setukpa Lemdikpol Hospital, Sukabumi City. **Methods:** Correlational research with cross sectional approach. Population and sample of 80 people using total sampling. Data collection techniques using questionnaires. Data analysis used univariate analysis with frequency distribution, bivariate analysis with Chi Square, and multivariate analysis with logistic regression. **Results:** The results showed that there was an effect of self-concept, transfusion compliance, family support, and parenting on the quality of life of children with thalassemia major (p -value<0.05). There is a simultaneous effect of self-concept, transfusion compliance, family support, and parenting patterns on the quality of life of children with thalassemia major (p -value<0.05). The dominant variable affecting the quality of life of children with thalassemia major is family support (OR=27.400). **Conclusion:** There is an effect of self-concept, transfusion compliance, family support, and parenting on the quality of life of children with thalassemia major. There is a simultaneous influence of self-concept, transfusion compliance, family support, and parenting on the quality of life of children with thalassemia major. The dominant variable affecting the quality of life of children with thalassemia major is family support. Hospitals are expected to organize educational and social activities involving families, health workers, and peers.

Keywords: Family Support; Parenting Patterns; Quality of Life; Self-Concept; Thalassemia Major Children; Transfusion Adherence

Factors Associated with Adherence to Taking Medication for Children with Tuberculosis at Selabatu Health Center, Sukabumi City

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Abstract

Introduction: Children's immature immune system makes them vulnerable to infectious diseases such as tuberculosis. Tuberculosis treatment takes a long time and triggers non-compliance, which is influenced by various factors, such as maternal education, maternal knowledge, family support, and distance to health facilities. The aim of the study was to determine the relationship between maternal education, maternal knowledge, family support, and distance to health facilities with adherence to taking medication in children with tuberculosis. **Methods:** Correlational research with a cross-sectional approach. The population and sample were 88 people using total sampling. Data collection techniques using questionnaires. Data analysis used univariate analysis with frequency distribution, bivariate analysis with Chi Square, and multivariate analysis with logistic regression. **Results:** The results showed that there was a relationship between maternal education, maternal knowledge, family support, and distance from health facilities with adherence to taking medication in children with tuberculosis (p -value < 0.05). There was a simultaneous relationship between maternal education, maternal knowledge, family support, and distance from health facilities with adherence to taking medication in children with tuberculosis (p -value < 0.05). The dominant variable associated with medication adherence in children with tuberculosis is maternal knowledge (OR=22.398). **Conclusion:** There is a relationship between maternal education, maternal knowledge, family support, and distance from health facilities with adherence to taking medication in children with tuberculosis. There is a simultaneous relationship between maternal education, maternal knowledge, family support, and distance from health facilities with adherence to taking medication in children with tuberculosis. The dominant variable associated with medication adherence in children with tuberculosis is maternal knowledge. Health Center is expected to organize health promotion on how maternal education, maternal knowledge, family support, and distance from health facilities are related to adherence to taking medication.

Keywords: Adherence to Taking Medicine; Children; Pulmonary Tuberculosis

Translation and Validation of the Indonesian Version of the Parenting Sense of Competence Scale

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Abstract

Background: The Parenting Sense of Competence (PSOC) Scale is widely used to assess parental self-efficacy, but its validation in diverse cultural contexts, such as Indonesia, remains limited. Given Indonesia's unique cultural influences on parenting, a validated PSOC Scale tailored to this population is needed. **Objective:** This study aimed to translate and validate the Indonesian version of the PSOC Scale to create a culturally relevant tool for assessing parental self-efficacy in Indonesia. **Methods:** The study employed a cross-cultural validation approach involving three stages: translation, cultural adaptation, and psychometric validation. First, the PSOC Scale was translated into Indonesian and back-translated to ensure language accuracy. Cultural adaptation was then assessed for relevance and clarity by experts. Finally, the construct validity and internal consistency were evaluated with 220 parents of infants aged 0–12 months in Sukabumi, West Java. Confirmatory Factor Analysis (CFA) and Cronbach's alpha were used to determine model fit and reliability. **Results:** Content Validity Index (CVI) values ranged from 0.73 to 1.00, indicating high content relevance. CFA results showed good model fit ($X^2/df = 1.165$, RMSEA = 0.083, SRMR = 0.068, CFI = 0.941, GFI = 0.945). Reliability testing yielded a Cronbach's alpha of 0.877 and an Intra-class Correlation (ICC) of 0.843, demonstrating high internal consistency and stability. **Conclusion:** The Indonesian PSOC Scale exhibited strong validity and reliability, making it a valuable tool for assessing parenting self-efficacy in Indonesia. Future research should explore its application in other Indonesian populations to enhance generalizability.

Keywords: Cross-Cultural Validation; Indonesia; Parental Competence; Parenting Self-Efficacy; Parenting Sense of Competence Scale; PSOC

Factors Affecting Adolescents' Access to Adolescent Health Services at SMK PGRI 1 Sukabumi City

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Abstract

Introduction: Adolescent health is an important area of concern, as there are significant physical, psychological and social changes during this period. Therefore, adolescents' awareness to access health services should be improved. There are various factors that influence adolescents in accessing health services, including knowledge, attitude, family support, and the role of health workers. The aim of the study was to determine the influence of knowledge, attitude, family support, and the role of health workers on access to health services in adolescents. **Methods:** Type of correlational research with a cross sectional approach. The population was adolescents with a sample of 243 people using proportional sampling. Data collection techniques using questionnaires. Data analysis used univariate analysis with frequency distribution, bivariate analysis with Chi Square, and multivariate analysis with logistic regression. **Results:** The results showed that there was an influence of knowledge, attitudes, family support, and the role of health workers on access to health services in adolescents (p -value<0.05). There is a simultaneous influence of knowledge, attitude, family support, and the role of health workers on access to health services in adolescents (p -value<0.05). The dominant variable affecting access to health services in adolescents is family support (OR=229.096). **Conclusion:** There is an effect of knowledge, attitude, family support, and the role of health workers on access to health services in adolescents. There is a simultaneous influence of knowledge, attitude, family support, and the role of health workers on access to health services in adolescents. The dominant variable affecting access to health services in adolescents is family support. SMK PGRI 1 Sukabumi City is expected to develop more effective and innovative health service programs for students.

Keywords: Adolescent Health Services; Attitude; Family Support; Health Officer; Knowledge

Machine Learning Models for Predicting Intraoperative Hypotension in Cesarean and Gynecologic Surgeries: A Systematic Review

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Abstract

Background: Intraoperative hypotension is a common complication during surgical procedures, especially in cesarean section and gynecologic surgery. Recent advances in machine learning (ML), especially deep learning (DL), have resulted in predictive models capable of identifying hypotension in real time. **Objective:** To evaluate the use of machine learning models in predicting intraoperative hypotension during cesarean section and gynecologic surgery. **Methods:** A systematic review was conducted following the PRISMA guidelines. The search base used PubMed, ScienceDirect, and ProQuest published until December 2024. The selected studies were those applying ML or DL models to predict intraoperative hypotension in cesarean section or gynecologic surgery. **Results:** Seven studies met the inclusion criteria. Two studies on ML methods in cesarean section with very good results in predicting hypotension. Three studies with gynecologic surgery using real-time HPI monitoring can improve hemodynamic stability and reduce intraoperative hypotension. Two other studies showed sensitivity and specificity of more than 75% using generic models in ML. **Conclusion:** Machine learning showed excellent results in predicting intraoperative hypotension and assisting real-time clinical decision making in cesarean section and gynecological surgeries.

Keywords: Cesarean Section; Deep Learning; Gynecologic Surgery; Intraoperative Hypotension; Machine Learning; Perioperative Care; Predictive Modeling

The Influence of Family Support, Spiritual Well-Being, and Self-Resilience on Addiction Relapse among Residents of Narcotics Rehabilitation Communities: A Systematic Review

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Abstract

Introduction: The struggle to deal with drug relapse by drug rehabilitation residents is multifaceted and complex. There are many obstacles faced in preventing relapse from narcotics. **Objective:** The aim of this systematic review is to identify and synthesize the factors of family support, spiritual well-being and resilience with drug relapse among drug rehabilitation residents. **Methods:** 5,582 articles were identified through databases by following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, searches were conducted in databases of peer-reviewed literature (ProQuest, Sage Journal, ScienceDirect, Scopus and Google Scholar) using the PICO formula. After title and abstract and full-text screening, 18 eligible studies remained. The reviewed articles met the inclusion criteria and the articles were published between 2018 and 2024. Studies were eligible if they included people who use drugs with a focus on relationships between psychosocial factors and drug relapse in drug abusers. **Results:** Sixteen studies were included in the review, with 1,625 participants with studies conducted around the world and 25% reported relapse after drug rehabilitation. The search results showed that there is a significant relationship between family support, spiritual wellbeing, and self-resilience with addiction relapse in narcotics rehabilitation residents. **Conclusions:** Global rates of drugs abuser continue to increase, and many guidelines recommend psychosocial interventions for community narcotics rehabilitation residents. Detection of factors associated with drug abuse relapse can assist counselors in identifying drug abuse resident relapse, so as to help develop guidelines and policies to prevent relapse in drug recovery in order to reduce harm must continue.

Keywords: *Addiction Relapse; Family Support; Resilience; Spiritual Wellbeing*

Impact of Patterns of Social Media Use on Self-Identity, Loneliness, and Anxiety among Adolescents

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Abstract

This study aims to investigate the impact of social media usage patterns on adolescents' psychological well-being, specifically focusing on self-identity, loneliness, and anxiety. The background highlights that with the widespread adoption of social media, adolescents are spending a significant amount of time on these platforms, potentially leading to psychological issues such as loneliness and anxiety. Although existing studies have shown associations between social media usage and mental health problems, research gaps remain, including the classification of usage patterns, the multidimensional mechanisms affecting psychological well-being, and the effects within different cultural contexts. By integrating a comprehensive theoretical framework (Social Comparison Theory, Self-Determination Theory, Uses and Gratifications Theory, and Identity Development Theory), this study explores the psychological mechanisms underlying the impact of active and passive social media usage. It employs surveys and correlational analyses to examine the effects of frequency, duration, content consumption, and interaction patterns on psychological variables. Additionally, it analyzes the moderating effects of age, gender, and socio-cultural backgrounds. This research provides practical guidance for educators, parents, and policymakers, offering theoretical insights and empirical evidence to enhance adolescent mental health and promote healthier social media platform designs.

Keywords: *Adolescents, Loneliness and Anxiety, Psychological Well-being, Social Media Usage, Theoretical Framework*

The Role of Paediatric Nurse to Enhance Atraumatic Care for Hospitalized Children: Literature Review

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Abstract

Introduction: Children are a gift and a gift from God who will become the foundation and future of the nation. Sick children in Indonesia currently vary greatly from both acute and chronic illnesses This literature review aims to analyze the role of pediatric nurse in atraumatic care for hospitalized children.

Methods: Preferred Reporting Items for Systematic reviews and Meta -Analyzes (PRISMA) scheme used in this study to describe search strategy. The researcher conducted a search using electronic databases as follows Google Scholar, PubMed, Scopus, DOAJ. The PICO format was used in the literature search process for this review which includes terminology "Hospitalized Children", "Children", "Pediatric Patients", "Atraumatic Care", "Atraumatic Care Therapy", "Atraumatic Approach " led by "pediatric nurse", "Nurse Pediatric", "Reduce Pain", "Reduce Anxiety", "Comfort", "Reduce Stress". The author conducted a search based on inclusion criteria consisting of: 1. The role of Paediatric Nurses, 2. Atraumatic care in sick children, 3. Hospitalized sick children, 4. Journal articles and manuscripts. The exclusion criteria in this search are 1. Articles with a year limit of less than 2020; 2. Articles not in English.

Results: In the process of finding journals in search engines, it was found that there were around 983 research journals related to the theme. The author determined several themes for further discussion, namely psychosocial care (the role of pediatric nurse) hospitalized children, family support management, and atraumatic care management. It is hoped that pediatric nurses can improve the parenting model for hospitalized children. In both primary and secondary care, the biopsychosocial model was incorporated. In primary care, local child health teams consisting of general practitioners, pediatricians, and pediatric nurses coordinated care with community pediatricians, health visitors, and school health, social work, and mental health services. Apart from that, nurses also play a role in providing therapeutic play, which can reduce anxiety levels in children. The use of Trace Image and Coloring for Kids-Book (TICK-B), AI-based technology, especially Virtual Reality, both passive and active Ventriloquist nursing intervention, are also an alternative choice in providing nursing care. **Conclusion:** Nurses play a role in integrated care services are provided to hospitalized children who are hospitalized.

Keywords: *Atraumatic Care; Hospitalized Children; Pediatric Nurse*

Factors Influencing the Risk of Anemia Among Pregnant Women in Sukabumi Health Centre Working Area

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Abstract

Introduction: Pregnancy is a process of physiological change in women that is prone to anemia. Anemia in pregnant women will lead to an increase in maternal and child mortality. The incidence of anemia in pregnant women can be influenced by several factors, including nutritional status, socioeconomic status, frequency of ANC visits, frequency and spacing of pregnancies, consumption of fe tablets, education level, and maternal age. This study aims to determine the factors that influence the risk of anemia in pregnant women. **Methods:** The research design used correlation with a cross sectional approach. The population and sample of this study were 80 pregnant women in the Sukabumi Health Centre Working Area with total sampling technique. The data collection technique used a questionnaire. Data analysis used univariate analysis with frequency distribution, bivariate analysis with Chi Square, and multivariate analysis with logistic regression. **Results:** The results showed that there was a effect of nutritional status, socioeconomic variables, frequency of Antenatal Care (ANC) visits, frequency and spacing of pregnancies, consumption of fe tablets, education level, and maternal age on the incidence of anemia in pregnant women ($p < 0.05$). Multivariate test results showed that there was a simultaneous effect of nutritional status, socioeconomic variables, frequency of ANC visits, frequency and spacing of pregnancies, consumption of fe tablets, education level, and maternal age ($p < 0.05$) on the incidence of anemia in pregnant women. **Conclusion:** There is a simultaneous effect of nutritional status, socioeconomic status, frequency of ANC visits, frequency and spacing of pregnancies, consumption of fe tablets, education level, and maternal age on the risk of anemia in pregnant women with nutritional status variable as the most dominant factor affecting the risk of anemia in pregnant women.

Keywords: ANC; Anemia; Consumption of Fe Tablets; Nutritional Status; Pregnant Women

Characteristics, Genetic History, Nutritional Status, Knowledge and Stress Level on the Prevention Behavior of Type 2 Diabetes Mellitus

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Abstract

Introduction: Diabetes Mellitus (DM) is an urgent global health problem with an increase of 0.5% per year in adolescents starting from 15 years of age, especially adolescents with a genetic history of diabetes, obesity, or both. Various factors such as individual characteristics, genetic history, nutritional status, knowledge, and stress levels influence the risk of T2DM. Students as a productive age group are vulnerable to T2DM due to unhealthy lifestyles, low preventive knowledge, and exposure to academic stress. This study aims to analyse the influence of these factors on T2DM prevention behaviour in university students. **Methods:** This study used a quantitative design with a cross-sectional approach. The research population was all Universitas Indonesia Maju (UIMA) students, and 384 respondents were selected using the Lemeshow formula and a purposive sampling technique. **Results:** Data analysis showed a significant influence both partially and simultaneously between characteristics, genetic history, nutritional status, knowledge, and stress levels on T2DM prevention behavior (p -value <0.05). These factors simultaneously contributed 72.9% to T2DM prevention behavior. The results of this study indicate the importance of health education, stress management, and the implementation of a healthy lifestyle, especially for students with overweight or a family history of T2DM. **Conclusion:** To prevent T2DM, it is highly recommended that CERDIK behavior (Routine health check, getting rid of cigarette smoke, Diligent physical activity, Healthy diet, Adequate rest, and Managing stress) and efforts to maintain ideal body weight be implemented. This study is expected to be the basis for promotive and preventive interventions in the higher education environment.

Keywords: Behaviour; Diabetes Mellitus; Prevention; Student

Mapping Research Themes and Future Directions in Hydrotherapy on Menopausal Women: A Bibliometric and Content analysis

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Abstract

Background: The progression from the reproductive phase to the post-reproductive stage represents a critical component of the female life cycle, significantly influencing overall well-being, with menopause serving as a pivotal milestone. It is imperative to promote regular physical activity to alleviate menopausal symptoms and avert age-related health issues. Hydrotherapy emerges as a viable alternative to mitigate menopausal manifestations and prevent health complications associated with aging. However, the increasing number and diversity of research in this area, a quantitative approach is necessary to map out current themes and identify potential areas for future research. **Objective:** This study aimed to offer a comprehensive overview of current research on the hydrotherapy on menopausal women, addressing key inquiries to illuminate the present state and advancements in this field. **Methods:** To achieve this goal, a bibliometric and content analysis was conducted to map out the existing research and identify emerging topics and directions for future research. The study analyzes 35 bibliographic data from Scopus and visualizes the results of the bibliometric analysis through co-occurrence and thematic map analysis using VOSviewer and Tableau Public software. Content analysis is then conducted based on the results of the co-occurrence analysis. **Results:** The findings reveal a significant increase in publications and citations on hydrotherapy on menopausal women, with popular research topics including aquatic exercise, pain, electromyography, muscle strength, bone loss, insomnia, sleep, fibrinogen, follicle-stimulating hormone, and body composition. Future research may focus on the factors contributing to aquatic exercise, electromyography, osteoarthritis, sleep, body composition, and insomnia. **Conclusion:** This study provides valuable insights into the current landscape of hydrotherapy on menopausal women research and highlights promising areas for future exploration. By addressing these research gaps and improving methodological approaches, researchers can enhance efforts to improve the quality of life of the menopausal women, ultimately leading to more effective therapy.

Keywords: *Bibliometric Analysis; Hydrotherapy; Menopause Women*

Analysis of Self-diagnosed Behavior on Mental Health in Final Year Students at the University Level

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Abstract

The current condition is that there are mental health indications that are at risk, one of which is the phenomenon of mental health self-diagnosis trends among adolescents. The impact of self-diagnosis is very bad on mental health, which can increase excessive anxiety and trigger depression and make a very excessive fear of obtaining professional health services in the field of mental health. Data shows that there is a trend of increasing self-diagnosis cases in adolescents from 2020 to the present, which is 15.1%. This type of research is quantitative, using a descriptive correlation research design, with a sample of 66 respondents obtained using probability sampling techniques. The results of this study showed that there was a significant relationship between knowledge and self-diagnosed behavior using the chi square test which obtained a p value of $0.031 < 0.005$. There was a significant relationship between attitude and self-diagnosed behavior with a p value of $0.00 > 0.005$ with an OR(IC) value of 0.063. There was a significant relationship between gender and self-diagnosed behavior with a p value of $0.003 > 0.005$ with an OR(IC) value of 0.358. This shows that the level of knowledge, attitudes and gender of adolescents will determine their self-diagnosis behavior, so it is necessary to intervene in the realm of these determinants. It is hoped that the government and families can further increase their awareness of the risk of this incident.

Keywords: *Attitudes; Gender; Knowledge; Mental Health; Self-diagnosis*

Application of Acupressure to Reduce the Risk of Hypertension Complications in Pregnant Women at UPT Puskesmas Gajah Mada, Tembilahan, Riau

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Abstract

The maternal mortality rate in Indonesia is still quite high. One of the causes of maternal death is hypertension leading to eclampsia. One way to prevent complications in pregnant women and reduce anxiety is through the application of acupressure. Acupressure is a non-pharmacological therapy that can lower blood pressure in hypertensive patients and can be included in the obstetric care plan for hypertension. The massages at specific points in acupressure can stimulate nerve waves, thus improving blood flow, relaxing spasms, and boosting immunity. This is expected to help the mother relax, stabilize blood pressure, and reduce anxiety. This study aims to determine whether there is a decrease in blood pressure in hypertensive patients after receiving acupressure therapy. The results of this study show that acupressure has an effect on lowering the blood pressure of pregnant women with hypertension.

Keywords: *Acupressure; Anxiety; Hypertension; Pregnant Women*

Barriers and Facilitators of Family-Centered Care for Women Newly Diagnosed with Breast Cancer: Implications for Quality of Life

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Abstract

Background: Breast cancer diagnosis has been demonstrated significant physical, emotional, and psychosocial ramifications for individuals and their families. Family-centered care for women newly diagnosed with breast cancer is critical to improving their quality of life. However, implementing FCC in breast cancer care faces various barriers. This systematic review examines the barriers and facilitators of implementing family-centered care for women newly diagnosed with breast cancer and explores its impact on their quality of life. **Methods:** A systematic search of PubMed, Medline, Pro Quest, Science Direct, Scopus, Web of Science, and Cochrane databases was conducted using PRISMA guidelines, identifying ten relevant studies published between 2019 and 2024. Qualitative studies with available abstract and full text, which were published in English with the keywords "barriers," "facilitators," "family-centered care," "breast cancer," "newly diagnosed" and "quality of life" in Pub Med, PsycINFO, Medline, Science Direct, Scopus, Web of Sciences and Cochrane databases between 2019–2024 were searched. As a result of the evaluations, the research was completed with 10 studies meeting the research criteria. **Results:** The review revealed several key barriers to FCC implementation, including diverse health beliefs and behaviors, socioeconomic factors, cultural norms, and caregiver burden. Conversely, facilitators of successful FCC implementation included family support groups, community networks, culturally tailored interventions, and training of healthcare providers to effectively engage families in the care process. Findings consistently demonstrated the positive impact of FCC on various health outcomes for women with breast cancer. These benefits encompassed improved self-esteem, increased motivation, enhanced treatment adherence, and better overall well-being. Furthermore, FCC was found to reduce caregiver burden and improve their coping strategies, indirectly benefiting the patient's quality of life. **Conclusion:** This review underscores the value of FCC as a supportive framework for women newly diagnosed with breast cancer and their families. By addressing the identified barriers and implementing effective strategies, healthcare providers can enhance FCC delivery and improve health outcomes for this vulnerable population.

Keywords: Barriers; Breast Cancer; Caregiver Burden; Cultural Context; Family Support; Family-Centered Care; Health Outcomes; Healthcare Providers; Implementation; Psychosocial

The Role of Parental Presence during Anesthesia Induction in Children: A Systematic Review

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Abstract

Background: Currently, the improvement of pediatric nursing quality is also a focus in sustainable healthcare services. The presence of parents during the induction of anesthesia in children is an effective strategy to reduce children's anxiety. However, many studies only emphasize children's anxiety, allowing space for further investigation into the impact of parental presence. This study aimed to review the impact of parental presence during anesthesia induction related to children's anxiety, parental satisfaction, and other clinical outcomes. **Methods:** This study used the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) Scheme to describe. The search strategy from 2014 to 2024 in PubMed, Wos, Scopus, and Embase. Inclusion criteria involve pediatric patients aged 0-18 years undergoing anesthesia induction, with parental presence being the main focus. A total of 5 Randomized Controlled Trials (RCTs) has been reviewed. **Results:** The presence of parents has been significantly proven to reduce children's anxiety during anesthesia induction, measured using the mYPAS questionnaire, with a greater effect when combined with pharmacological intervention or training for parents before their presence, improving children's cooperation with anesthesia staff measured by the ICC questionnaire. Parental satisfaction in the group with parental presence was higher. **Conclusions:** The presence of parents provides benefits in reducing children's anxiety, improving children's cooperation with anesthetic staff, and increasing parental satisfaction. The presence of additional interventions besides the presence of parents makes it its own challenge in interpreting the results. Nevertheless, the findings still support that parental presence is part of a sustainable strategy to enhance the well-being of both children and parents.

Keywords: Children; Induction of Anesthesia; Parental Presence; Systematic Review

Participation of Social Assistance in Improving the Quality of Life of the Elderly: A Systematic Review

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Abstract

Background: Aging is something that inevitably happens throughout the human life cycle. The decline in physical function and health due to aging is faced by the elderly so that they are also vulnerable to various diseases. Role changes occur, both roles in the family and in carrying out social roles in society. The decline in physical function, health and roles in the family and social society, makes the elderly become dependent and depressed and lose their welfare. **Objective:** to explore and identify the need for assistance for the elderly to maintain the welfare and quality of life of the elderly. **Methods:** A systematic review was conducted based on various literature obtained from Google Scholar, Science Direct, and PubMed searches between 2019 and 2024 and potentially relevant to the topic. A critical review of ten full texts from 249 literatures and meeting the inclusion and exclusion criteria based on the PRISMA checklist. Results and discussion: Factors that contribute to maintaining and improving the physical resilience and psychosocial well-being of the elderly include the quality of support in the family, a sense of responsibility and emotional cognition and religiosity and are supported through elderly assistance have contributed to the subjectivity of the physical and psychosocial well-being of the elderly. **Conclusion:** It is important for the elderly to be able to understand and maintain their physical and psychosocial functional abilities supported by social participation through maximum assistance in the future.

Keywords: *Elderly; Improving the Quality of Life; Participation of Social Assistance*

Enhancing Safety Awareness Through Self-Assessment: Insights from Nurses in Public Hospitals

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Abstract

Introduction: Patient safety remains a cornerstone of healthcare quality, with nurses playing a pivotal role in ensuring safe clinical environments. Public hospitals, often facing resource constraints and high patient volumes, require robust strategies to foster safety awareness among nursing staff. Self-assessment has emerged as a potential tool to enhance awareness by encouraging nurses to critically evaluate their own practices and identify areas for improvement. This literature review examines the existing evidence on the use of self-assessment as a mechanism to improve safety awareness among nurses in public hospitals, highlighting its benefits, challenges, and implications for practice. **Methods:** This literature review explores the effectiveness of self-assessment tools, barriers and facilitators to their adoption, nurses' perceptions of self-assessment, and the impact of these tools on safety awareness and patient outcomes. **Results:** The findings indicate that self-assessment improved awareness and accountability in nursing practice. However, several barriers to implementation were noted, including time constraints, and lack of standardized tools. Nurses consistently linked self-assessment tools to enhanced safety awareness, reporting a better understanding of their responsibilities and potential risks in nursing clinical practice. Structured self-assessment tools helped nurses identify areas requiring additional training or resources. **Conclusion:** Self-assessment has significant potential to enhance safety awareness to decrease work risk among nurses in public hospitals, fostering a culture of accountability and continuous improvement of nursing safety practices.

Keywords: *Safety Awareness; Self-assessment; Nurses Public Hospitals*

Effect of Santri Model Training on Spirituality and Spiritual Care of Nursing Students

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Abstract

Background: Spiritual care is one of the nursing services in meeting the spiritual needs of patients and improving the overall quality of care provided to patients. Improving spiritual care competency requires a comprehensive approach with training. The components of spiritual care and spirituality are recognized as prerequisites for clinical capacity and competence. The current study determined the effect of santri model training on spirituality and spiritual care in nursing students. **Methods:** This pre-experimental study was conducted on 75 nursing students studying at Hafshawaty Zainul Hasan University in Probolinggo, Indonesia, who were selected through simple random sampling. Data collection tools are spirituality scale and spiritual care questionnaire for nursing students. The data obtained were analyzed with SPSS20 using descriptive and inferential statistics. **Results:** The mean scores of students' spirituality and spiritual care were 68 ± 4.9 and 119 ± 12 , respectively. The Wilcoxon test results show that the santri model training has a positive and significant correlation with student spirituality and spiritual care ($p=0.00$, $r=0.01$). Regression test results showed that spirituality and spiritual care can be considered as predictors of spiritual care competency. **Conclusion:** The results showed that the santri model training was able to improve spiritual care competence in nursing students at fair level, and the higher the level of clinical spiritual care, the more spiritual care competence will be developed. Thus, nursing educators and health system managers should provide santri model training to improve the spiritual care of nursing students to develop their spiritual care competencies.

Keywords: Nursing Students; Santri Model Training; Spiritual Care; Spirituality

The Effect of Implementing Adult Learning Concepts on Health Students' Understanding of Lecture Material: A Systematic Review

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Abstract

Background: Students at universities are adult humans who are the hope of the nation and state. It is hoped that the andragogical learning process will be able to make them a generation with character by forming the character to create human civilization. However, the learning system is still pedagogically dominant, so students tend not to be directly involved in learning preparation, applying adult learning concepts. For this reason, it is necessary to look at the influence of adult learning. **Methods:** Data for the last 5 years (2019-2024) found publication data regarding the concept of adult learning totalling 27,500 publications. And significantly in 2024 there will be 6,310 publications. Of the total publications, we found 10 that were relevant and met the review criteria. **Results:** The results show that lectures that use adult learning concepts have results with increased satisfaction in learning. **Conclusion:** In the future, it is necessary to carry out comprehensive campaign efforts, so that learning using the adult learning concept continues to be implemented. And by finding various strategies that involve students and lecturers systematically.

Keywords: *Adult Learning; Analytical Thinking; Lecturers; Students*

Husband Classes: Enhancing Motivation for Antenatal Care Visits and Promoting Paternal Bonding During Pregnancy

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Abstract

Background: Husband class is an innovation of antenatal class activities that involve the role of husbands in caring for and maintaining the mother's pregnancy and fetus to be healthy, as well as preparing mothers and husbands to understand the process of changing their roles during pregnancy and preparation for welcoming the birth of their babies. Knowledge about the importance of caring for and maintaining the health of mothers and fetuses will help them to carry out antenatal care checks frequently and increase concern and emotional closeness between mothers, fathers and fetuses. **Objective:** To identify the relationship between the implementation of husband classes with motivation for antenatal care visits and bonding between husbands and fetuses and their partners during pregnancy. Method: This study used a quasi-experimental design with one group pre and post-test. The number of samples was 21 people with simple random sampling. By conducting husband classes for \pm 100 minutes per session 4 times during July-August 2024, using lecture methods, discussions, case studies, questions and answers, demonstrations. Video media, e-booklets, and KIA books. **Results:** It is known that the majority of respondents' motivation for ANC visits before attending the husband class was sufficient 11 (42.8%) and after that good motivation 18 (85.7%). The level of paternal-bonding before attending the husband class was low, namely 12 respondents (57%) and after that the level of paternal-bonding was high, 17 (81%). There is a relationship between the implementation of the husband class and the motivation to visit ANC p value (0.000) and there is a relationship between the implementation of the husband class and the level of paternal-bonding p value (0.001). **Conclusion:** The implementation of the husband class is highly recommended for couples visiting health facilities by setting a special schedule for pregnancy classes that include their husbands using a variety of methods and media that interest participants.

Keywords: ANC Visit Motivation; Paternal-Bonding; Husband Class

Coping Strategies for Maternal Mental Health and Family Well-Being among Working Mothers : A Systematic Review of Strategies

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Abstract

Background: Working mothers have dual roles in work and family life responsibilities. This dual role often causes stress and has an impact on maternal mental health and family well-being. Coping strategies play an important role in reducing stress, improving maternal mental health and family well-being. Based on this, it is necessary to review the most common coping strategies applied by working mothers in dealing with work-family role conflicts and improving maternal mental health. **Objective:** This systematic review aims to identify and synthesize evidence on coping strategies used by working mothers to manage maternal mental health and improve family well-being. Research methods: A systematic review search was conducted in the PubMed, Science Direct, Google Scholar, and ProQuest databases according to the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P). The bias can be seen in research subjects that focus on specific population groups so that it can limit the generalization of findings to the population of working mothers in other sectors. **Results:** The systematic review yielded seven studies about various coping strategies used by working mothers. Coping strategies included problem-focused coping, utilization of social support, and emotion regulation. Effective coping was associated with reduced stress, increased psychological well-being, and improved family relationships. Barriers to coping included limited workplace support and high parenting demands. **Conclusions:** Coping strategies are critical to maintaining maternal mental health and family well-being among working mothers. Interventions that emphasize workplace flexibility, social support, and stress management training may further empower mothers to achieve work-life balance.

Keywords: Coping Strategies; Family Well-Being; Mental Health; Systematic Review

Factor Associated with Smartphone Use: A Cross-Sectional Study on Adolescent

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Abstract

Background: Working mothers have dual roles in work and family life responsibilities. This dual role often causes stress and has an impact on maternal mental health and family well-being. Coping strategies play an important role in reducing stress, improving maternal mental health and family well-being. Based on this, it is necessary to review the most common coping strategies applied by working mothers in dealing with work-family role conflicts and improving maternal mental health. **Objective:** This systematic review aims to identify and synthesize evidence on coping strategies used by working mothers to manage maternal mental health and improve family well-being. **Methods:** A systematic review search was conducted in the PubMed, Science Direct, Google Scholar, and ProQuest databases according to the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P). The bias can be seen in research subjects that focus on specific population groups so that it can limit the generalization of findings to the population of working mothers in other sectors. **Results:** The systematic review yielded seven studies about various coping strategies used by working mothers. Coping strategies included problem-focused coping, utilization of social support, and emotion regulation. Effective coping was associated with reduced stress, increased psychological well-being, and improved family relationships. Barriers to coping included limited workplace support and high parenting demands. **Conclusions:** Coping strategies are critical to maintaining maternal mental health and family well-being among working mothers. Interventions that emphasize workplace flexibility, social support, and stress management training may further empower mothers to achieve work-life balance.

Keywords: Adolescent; Anxiety; Depression; Leisure Boredom; Personality; Smartphone Use; Stress

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: *Breast Cancer; Chinese Women; Lifestyle Factors; Prognosis; Public Health*

A Cross Sectional Study of the Application of Mapping Care Plan to Student Perception in the Preparation of Nursing Care

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Abstract

The nursing process is a description of the performance of nurses in managing patients. Based on the evaluation of perioperative nursing care in Indonesia, it was found that the implementation of nursing care was still not in accordance with the set standards and those that were in accordance with the standards were obtained by 50.94%. Based on the preliminary study, there are still 52% of nurses who do not understand the application of documentation standards. Meanwhile, in students, it was also found that there were still many mistakes in the preparation of nursing care. This shows that the competence in arranging nursing care has not been fully achieved. Therefore, the S1 Nursing Study Program requires students to be able to compile nursing care in the form of MCP which is a concept of thinking with mapping the nursing care process that will help in the application of nursing care. This study aims to explain the effect of the implementation of mapping care plan (MCP) on student perception in the preparation of nursing care. This study is quantitative research with a correlation design that uses a cross-sectional study approach. The population in this study is all students in the S1 Nursing study program with a sample of 244 students through stratified random sampling techniques. The instrument used was a questionnaire about the application of MCP and the perception of nursing students in preparing nursing care. The results of the study were analysed by the chi square test, obtained a p value of $0.000 < \alpha: 0.05$. Therefore, it can be concluded that there is an influence of the application of MCP on student perception in the preparation of nursing care. It is hoped that this research can be used as a consideration to train nursing students to think critically so that the competence in compiling nursing care is well achieved. This will have a positive impact on nursing services, which will provide a guarantee for the progress of nursing and health care.

Keywords: Mapping Care Plan (MCP); Nursing Care; Perception

Lived Experiences of Pre-dialysis Chronic Kidney Disease Patients: A Qualitative Study

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Abstract

Background: Chronic Kidney Disease (CKD) is a global health issue, with patients facing several challenges in managing the condition. While much of the research in India has focused on patients undergoing hemodialysis, the experiences of pre-dialysis CKD patients remain under investigated. Understanding the barriers to effective self-management in this group is critical, as inadequate disease management can accelerate disease progression to end-stage renal disease (ESRD), requiring costly renal replacement therapy (RRT) and adversely affecting quality of life (QoL). The present study addresses this gap by exploring the lived experiences of CKD patients who have not yet started RRT.

Methods: The study followed a phenomenological research design to explore the lived experiences of the patients with CKD. A total of 15 patients were selected through purposive sampling technique, based on their diagnosis, stage of the disease and willingness to participate. The data were collected through face-to-face interviews with participants, continuing until data saturation was achieved. A thematic analysis approach was used to analyse the data. **Results:** Major barriers of self-care among the CKD patients included inadequate disease knowledge, poor adherence to treatment plans, struggles with dietary restrictions and life-style modifications. Additionally, restricted socialization and difficulties in coping with the illness further restricted their self-care abilities. **Conclusion:** This study highlights several barriers to effective self-management in pre-dialysis CKD patients. The findings suggest that certain educational interventions are crucial for effective disease management. The findings provide valuable insights for enhancing nursing practices, developing targeted interventions, improving patient outcomes and ultimately slowing the progression of CKD.

Keywords: Chronic Kidney Disease; Lived Experience; Qualitative; Self-Care Deficit; Self-Management

Teamwork between Professional Care Providers in the Implementation of Interprofessional Collaboration at Hospital

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Abstract

Interprofessional collaboration is a key element in providing high-quality patient care. Interprofessional Collaboration (IPC) practice is a form of collaborative cooperation between health workers to ensure optimal patient care. Professional Care Providers (PPA) with different professional backgrounds are required to contribute individually and in teams. This study aims to determine the description of team collaboration practices between PPA in the implementation of Interprofessional Collaboration at the Hospital. This study used a qualitative design with a phenomenological approach to explore interprofessional collaboration practices at the Hospital. Data collection was carried out through in-depth interviews and Focus Group Discussions. The collected data were recorded, transcribed, and analysed using thematic analysis. The research informants numbered 12 people, consisting of 3 hospital services in charge of dokter (DPJP), 3 nurses, 3 pharmacists, and 3 dieticians. The study took place in October–November 2024. The results of the study showed that interprofessional collaboration at the Hospital had not been running optimally. Joint visit activities involving the four professions were very rare. The professions of pharmacists and dietitians who should support collaboration were not sufficient in quantity. The clinical competence of nurses in supporting collaboration was still not fulfilled. Most PPA did not understand the concept of IPC well, the dominance of collaboration tended to occur among the professions of doctors and nurses, while other professions were less involved. Factors that hinder the optimization of IPC include a lack of understanding of the concept of collaboration, the small number of certain health workers such as pharmacists and dietitians, and the lack of special training related to IPC. Hospitals need to make efforts to improve understanding and implementation of interprofessional collaboration through education, training, and strengthening policies that support IPC practices. Socialization of regulations and implementation of Interprofessional Collaboration needs to be carried out periodically so that PPA understands the concept of IPC well. Routine evaluation is also important to ensure the effectiveness and sustainability of interprofessional collaboration in health services.

Keywords: *Interprofessional Collaboration; Professional Care Providers; Teamwork*

Enhancing Maternal Satisfaction and Well-being: The Impact of Advanced Homecare Programs on Postpartum Recovery

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Abstract

This research examines the impact of advanced nursing homecare programs on the satisfaction and well-being of postpartum women in Indonesia. The program provides comprehensive, personalized services, including emotional support, education, and health monitoring by trained nurses. Building on the findings of Zhuang et al. (2020), which highlighted the potential for such care to alleviate depression, improve quality of life, and increase satisfaction among postpartum women by influencing biochemical markers such as serum E2, 5-HT, and PRGE, this study used bibliometric analysis with VOSviewer to visualize the relationships between homecare programs, patient satisfaction, postpartum well-being, and psychological factors like stress and anxiety. The study also emphasized the roles of social support and caregivers, as well as the effectiveness of interventions. The research employed a qualitative descriptive-correlational design, focusing on women who received homecare within a month after childbirth. Participants were selected using purposive sampling. Data collection involved both structured and semi-structured questionnaires, which were analysed through thematic analysis to identify key themes. The results indicated that advanced nursing homecare significantly improved maternal satisfaction and well-being postpartum, while reducing anxiety and depression. This study underscores the critical importance of enhanced homecare services for postpartum mothers, highlighting the value of caregiver support and personalized interventions.

Keywords: *Infant Care Support; Maternal Health Outcomes; Maternal Satisfaction; Postpartum Care; Postpartum Well-being*

Reflexology as a Complementary Therapy: A Literature Review

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Abstract

Introduction: Reflexology is a treatment method that involves stimulating specific reflex areas (zones) on the feet, hands, and ears, which are linked to various body organs. As a form of therapy, reflexology harnesses the body's natural strength and resilience through massage techniques applied to mapped areas according to therapeutic zones. These zones are defined by imaginary (abstract) lines that illustrate the boundaries and reflexes connected to the body's organs. **Objective:** The aim of this study was to conduct a literature review on current reflexology practices by analysing relevant issues, theories, and supporting evidence. **Methods:** Ten published studies in English on reflexology were reviewed. **Results:** The review found that reflexology is a non-invasive, complementary therapy that involves manual pressure on specific reflex points on the feet, hands, or ears. **Conclusion:** Reflexology has been shown to reduce pain intensity in patients with chronic pain, alleviate anxiety and stress, improve sleep quality, and reduce nausea and vomiting.

Keywords: *Complementer; Reflexiology; Theraphy*

Basic Needs Satisfaction in Chronic Kidney Disease with Hemodialysis Patients

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Abstract

Introduction: Patients undergoing hemodialysis often experience a decline in their quality of life due to the various challenges they face, which impact their overall well-being. This decline is primarily attributed to unmet basic needs. Family support plays a crucial role in improving the quality of life for patients with chronic kidney disease. **Methods:** This research is descriptive-analytic, utilizing a quantitative approach with a cross-sectional design. The population consisted of 194 hemodialysis patients at Achmad Mochtar Hospital in Bukittinggi, West Sumatera. Sampling was conducted using accidental sampling, resulting in a sample size of 85 individuals. Inclusion criteria required participants to have been undergoing hemodialysis for more than 3 months and to be cooperative. Data was collected through a research questionnaire, and data analysis was conducted using univariate analysis. **Results:** The findings of this study indicate that 64.7% of chronic kidney disease patients undergoing hemodialysis reported satisfaction with their basic needs. These needs encompass physiological needs, safety and comfort, love and belonging, self-esteem, and self-actualization. **Conclusion:** Supporting patients' self-efforts and providing family support are critical factors in improving the quality of life for chronic kidney disease patients undergoing hemodialysis.

Keywords: Basic Need, Chronic Kidney Disease, Hemodialysis

Patient Satisfaction the Quality of Nursing Service the Adult Inpatient Department in Pangkalpinang Bangka Belitung Island Hospital

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Abstract

Background: RSBT Pangkalpinang faces challenges in consistently meeting patient satisfaction expectations in its inpatient department, necessitating continuous evaluation and improvement of service quality. **Methods:** An explanatory sequential mixed-method design was used, involving 93 respondents for the survey questionnaire and 6 respondents for the semi-structured interviews in phases 1 and 2. The results were triangulated in phase 3. The Kruskal-Wallis test was applied in phase 1, while thematic analysis was used in phase 2. Ethical approval was obtained from the Pangkalpinang Bangka Belitung Island hospital for data collection. **Results:** A significant relationship was found between the quality of nursing services and patient satisfaction ($p \leq 0.05$). The Kruskal-Wallis test results revealed statistically significant differences in service quality ratings across the various SERVQUAL dimensions. A p -value below 0.05 indicates that the observed differences are unlikely due to chance, prompting further analysis or action to improve specific service areas. The lived experiences explored were also significant. **Conclusion:** The triangulation of lived experiences with the SERVQUAL dimensions revealed significant correlations, showing that participants' perceptions of service quality align with the key domains of tangibility, reliability, responsiveness, assurance, and empathy. This convergence of qualitative and quantitative data strengthens the findings and highlights the importance of addressing specific service quality dimensions to enhance overall patient satisfaction.

Keywords: Assurance; Empathy; Patient Satisfaction; Reliability; Responsiveness; SERVQUAL; Tangibility

The Role of Child Psychology in the Independent Curriculum Learning Process in Elementary Schools

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Abstract

Introduction: Educational psychology is a multidisciplinary field that integrates concepts from various sciences, including biology, neuroscience, linguistics, and more. It utilizes theories of human development to understand the characteristics of students at different developmental stages, such as early childhood, elementary school, adolescence, and adulthood. These theories encompass physical and motor development, cognitive development, psychosocial development, language development, and communication development. Understanding these theories becomes easier when applied in real-world educational contexts. **Methods:** This study employs a literature review approach, relying on library research. The discussion is based on expert opinions and the findings of previous research on psychology and learning. **Results:** We conducted searches in online databases, specifically PubMed, ScienceDirect, and ProQuest. **Conclusion:** In the context of the independent curriculum, teachers must understand various aspects of behavior related to their duties and the behavior of others, particularly student behavior in all its dimensions. By understanding student characteristics, teachers can effectively perform their roles, design appropriate learning models, select suitable learning media, and develop effective assessments. Ultimately, this knowledge helps teachers contribute meaningfully to achieving educational goals in schools.

Keywords: *Educational Psychology; Elementary School; Independent Curriculum*

The Effectiveness of Mobile Health in Improving Self-care Management Compliance in Hypertension Patients

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Abstract

Introduction: Hypertension is a prevalent chronic condition that requires effective self-management for proper treatment. Mobile health applications (mHealth) provide valuable tools to support the self-management of hypertension. However, with the growing number of hypertension-related apps, it is crucial for both patients and healthcare professionals to understand the extent to which mHealth applications are effective. Self-care management for hypertensive patients can be categorized into five key behaviors: adherence to a healthy diet, physical activity, stress management, limiting alcohol consumption, and quitting smoking. This study aims to evaluate the effectiveness of mobile health interventions and educational support in improving adherence to self-care management among hypertensive patients. The research follows a literature review approach. **Methods:** This study employs the literature review method. We searched for relevant studies using online databases, specifically PubMed, ScienceDirect, and ProQuest. A total of 10 studies were included in the analysis. **Results:** The results of this review indicate that 7 of the studies reported a significant reduction in blood pressure, while 3 studies demonstrated positive changes in patients' lifestyles. **Conclusion:** Based on the findings, we conclude that the use of mHealth interventions effectively supports hypertension self-management

Keywords: *Blood Pressure; Hypertension; Hypertension Self Management; Mobile Health*

Family Engagement, Stress, Anxiety and Satisfaction in Intensive Care Unit

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Abstract

Background: Numerous studies have demonstrated that family participation in patient care within the intensive care unit is advantageous for patients. Nevertheless, few research have elucidated the effects of family involvement on the families themselves. **Objectives:** This study seeks to assess the impact of familial engagement on stress levels, anxiety, and family satisfaction among patients undergoing treatment in the Intensive Care Unit. **Methods:** Cross-sectional survey design encompassed 107 family members selected based on inclusion criteria, employing measurement instruments such as the Family Involvement in Care Questionnaire (FICQ) for assessing family involvement, the GAD-7 Anxiety Questionnaire for evaluating anxiety levels, the Perceived Stress Scale (PSS) for determining stress levels, and the Family Satisfaction with Care in the Intensive Care Unit: FS-ICU 24R questionnaire for measuring family satisfaction. **Results:** The findings indicate a strong association (0.751) between involvement and family satisfaction (p -Value $0,00 < 0,05$), a weak correlation (0.198) between involvement and family stress (p -Value $0,04 < 0,05$), and no link between involvement and family anxiety, with a p -value of 0.335, > 0.005 . **Conclusion:** We find that while family involvement can improve family satisfaction, it is unable to lessen the tension or anxiety that families face when dealing with the care of patients in the critical care unit.

Keywords: Anxiety; Family Engagement; Family in Intensive Care; Stress

Factors Influencing Chemotherapy Adherence Among Cervical Cancer Patients

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Abstract

Background: Cervical cancer is one of the major health problems and the second leading cause of death in women. In Indonesia an estimated 36,000 women are diagnosed with cervical cancer each year and 70% of cases are diagnosed at an advanced stage. Cancer deaths in 2020 are around 21,003 deaths. The increasing number of patients has led to an increase in the use of chemotherapy drugs as the first treatment option for patients. Adherence to chemotherapy treatment is a crucial aspect in the care of cervical cancer patients. **Objectives:** This study aims to determine the factors that affect the compliance of cervical cancer patients in undergoing chemotherapy. **Methods:** This study is a quantitative study with correlation design, cross sectional approach. The research was conducted at Arifin Achmad Hospital Pekanbaru. The research instrument used was a questionnaire. The research sample amounted to 95 respondents who were taken with accidental sampling technique. Data analysis used chi-square test. **Results:** The results of the study showed that 66.3% of respondents were not compliant with chemotherapy, 63.2% of respondents had low knowledge, 56.8% of respondents had a home distance close to health services, 52.6% of respondents received sufficient family support, 45.3% of respondents experienced moderate anxiety. There is a relationship between knowledge and chemotherapy compliance (p -value=0.000), there is a relationship between distance and chemotherapy compliance (p -value=0.006), there is a relationship between family support and chemotherapy compliance (p -value=0.001) and there is a relationship between anxiety and chemotherapy compliance (p -value=0.018). **Conclusion:** Knowledge, distance, family support and anxiety affect the compliance of cervical cancer patients in undergoing chemotherapy.

Keywords: Adherence; Anxiety; Family Support; Knowledge

Intensive Neurophysiological Rehabilitation and Conventional Rehabilitation for Improving Quality of Life of Children with Cerebral Palsy a Double Blinded Randomized Control Trial

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Abstract

Introduction: Cerebral palsy is a common neurodevelopmental condition encountered by pediatricians. Cerebral palsy is invariably associated with many deficits such as mental retardation, speech and language and locomotor problems. **Objective:** Generally, the objective of the study is to evaluate the effect of INRS and conventional rehabilitation for children with CP and Specific objective is to assess the impact of INRS on Cerebral palsy children quality of life. **Methodology:** Total 40 CP children were taken out of which 4 were drop out ratio. sample was randomly divided into two groups. Group A which was the treatment group with INRS and conventional therapy and Group B which was the control group and received only conventional therapy and home-based rehabilitation treatment this clinical trial was register in Thailand clinical Trial Registry Gross motor function measure 88 set, Jebson Taylor hand function test, Self-care and mobility domain of the pediatric Evaluation of disability inventory and Quality of life tool was used as outcome tool. **Results:** The mean and standard deviation of age was 7.9 and 2.48, Females were 10 (27%) and males were 26 (70.3%) participants. Paired sample t-tests were applied for the comparison within the group and change was for pre and post reading for GMFM88 meant 61 (SD17) and post test was 65.6 (SD18.2) and in PEDI pre score was 56.9 (SD15.9) and post test was 60.9 (SD18). The p-values less than 0.05 show that the results were significant. The independent T-test was used to compare results between the experimental and Control group. There was change in the mean Score of GMFM88 was 59.5 (SD12.3) and Pediatric Evaluation of Disability Invent (PEDI) was 62.7 (SD13.1) with *p* value significant. The results are not much more statistically significant but change in means and standard deviation show improvement in groups with INRS treatment group. **Conclusion:** Intensive neurophysiological rehabilitation in children with CP resulted in more improved motor abilities, improved self and reduced need for caregivers' assistance in self-care and mobility.

Keywords: Cerebral Palsy; INRS; Quality of Life

Effective Leadership Styles, Nurses' Satisfaction, and Intention to Stay: A Conceptual Framework for Achieving Quality Improvement

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Abstract

This paper presents a conceptual framework that explores the relationship between effective leadership styles, nurses' job satisfaction, and their intention to stay, all of which are critical factors in achieving quality improvement in healthcare settings. The framework highlights the essential role of leadership in creating an environment that promotes nurses' well-being and professional development, which, in turn, enhances organizational performance and patient care quality. Drawing on established leadership and organizational behavior theories, the study suggests that transformational and participative leadership styles are particularly effective in addressing challenges such as high turnover rates, burnout, and job dissatisfaction among nurses. The framework also emphasizes the mediating role of nurses' job satisfaction, which directly correlates with their commitment to the organization and efforts toward quality improvement. This conceptual model integrates elements of motivation, organizational support, and continuous quality improvement, providing a comprehensive view of how healthcare institutions can leverage leadership practices to build a sustainable, satisfied workforce. The paper aims to offer theoretical insights and practical recommendations for healthcare leaders, policymakers, and researchers in developing strategies that improve nurse retention and foster consistent quality improvement in patient care. The proposed framework serves as a foundation for future empirical studies and interventions focused on nurse-centered leadership approaches to transforming healthcare delivery systems.

Keywords: *Effective Leadership Styles; Intention to Stay; Nurses' Job Satisfaction; Quality Improvement in Healthcare*

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. **Objective:** 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 descriptive cross-sectional design. The study will use stratified random sampling technique with 200 nurses who working in primary health centre 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 SPSS program and appropriate statistical tests to analyse 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: *Biological Disaster; Management; Preparedness; Primary Health Nurses*

The Impact of Digital Teamwork Communication in Patient Safety among Peri-Operative Nurses in Jazan City

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Abstract

The current study investigates the effect of digital teamwork communication on patient safety among perioperative nurses in Jazan City. Effective communication among perioperative teams is an important determinant of patient safety and avoiding adverse events in surgical settings. The study explores how digital communication enhances teamwork effectiveness and improves safety outcomes as more digital tools are integrated into healthcare. The study is based on the TeamSTEPPS framework, emphasizing teamwork domains like leadership, communication, situation monitoring, and mutual support. The conceptual framework links digital communication as the independent variable, teamwork as the mediating variable, and patient safety outcomes as the dependent variable. A quantitative, descriptive research design is adopted in this study, with the application of a structured questionnaire based on the TeamSTEPPS Teamwork Perceptions Questionnaire (T-TPQ) and patient safety assessment tools. The population of this research includes perioperative nurses working in both public and private hospitals in Jazan City. Stratified random sampling will be used to ensure a representative sample. Data analysis will examine the relationships among digital communication, teamwork dimensions, and patient safety outcomes. The expected outcomes are a strong positive correlation between digital communication tools and teamwork efficiency and improvements in patient safety outcomes, such as reduced surgical errors, improved adherence to safety protocols, and overall quality of care. This study contributes to understanding digitalization's role in the perioperative setting. It recommends integrating digital communication tools into clinical practice to enhance teamwork and patient safety.

Keywords: *Digital Communication; Patient Safety; Perioperative Nurses; TeamSTEPPS Framework*

Factors Influencing the Therapeutic Relationship between Nurses and Patients in Mental Health Hospitals in Saudi Arabia

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Abstract

This research proposal investigates the factors influencing the therapeutic relationship between mental health nurses and patients in various regions of mental health hospitals in the Kingdom of Saudi Arabia. The therapeutic relationship has been widely recognised as a critical determinant of positive patient outcomes in mental health care. This study adopts a mixed-methods exploratory sequential approach design to examine how factors such as nurse empathy, communication techniques, patient perceptions, and environmental conditions contribute to the quality of these relationships. Grounded in Jean Watson's Theory of Human Caring, the research employs quantitative surveys of different regions and cultures to provide a comprehensive assessment of nurse-patient rapport. Targeting samples from different regions ensures breadth and depth in understanding the dynamics of the therapeutic relationship in Saudi Arabia. The findings of this study are anticipated to have significant implications for mental health care practices in Saudi Arabia. Specifically, the results will inform the development of policies that enhance therapeutic communication and provide systematic support and training for mental health nurses. Furthermore, the study aims to identify potential environmental modifications and refine nursing staff selection criteria to improve patient care and elevate mental health care standards across Saudi Arabia.

Keywords: *Exploratory Sequential Design; Mental Health Nurses; Mixed-Methods; Nurse Empathy; Therapeutic Relationship*

Effectiveness of Transformational Leadership to Improve Work Environment and Nurses' Job Satisfaction

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Abstract

Introduction: In recent years, leadership style and job satisfaction have become important issues in the healthcare system. Various nursing leadership styles have a direct or indirect impact on the nursing profession, and quality of patient care. The discussion regarding the influence of leadership style on nurses' job satisfaction focuses on how various leadership styles affect the work environment and the quality of care delivered by nursing professionals. Transformational leadership has become one of the leadership styles believed to have a positive effect on nurses' job satisfaction, work environment, and performance. This review primarily focused on evaluating the influence of transformational leadership style on the work environment and nurses' job satisfaction. **Objective:** The review aimed at assessing the effectiveness of transformational leadership style to improve work environment and job satisfaction among nurses. **Methods:** A systematic literature review approach was used. Comprehensive literature searches were conducted in PubMed, MEDLINE, CINAHL, Web of Science, and Research4Life. All English articles published between 2019 and 2024 reporting the effectiveness of transformational leadership on work environment and nurses' job satisfaction were eligible for inclusion. PRISMA guideline was used to select cross-sectional studies for this systematic review. **Results:** Five articles were included in the review, cross-sectional studies. These studies were conducted in healthcare settings, with a total of 1285 nurses and they reported the positive influence of transformational leadership on nurses' job satisfaction, work environment and the quality of care provided by nurses. **Conclusion:** The transformational leadership style significantly enhances job satisfaction among nurses. Consequently, it is advisable for healthcare organizations to adopt a transformational leadership style to improve work environment and nurses' job satisfaction.

Keywords: *Nursing, Job satisfaction, Transformational Leadership*

Phenomenological Study: The Role of Peer Volunteers in Increasing Therapy Compliance in HIV Positive Adolescents

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Abstract

In Tangerang City, Banten Province, Indonesia, the prevalence of HIV/AIDS continues to rise, reflecting a broader trend observed across the region. According to recent data from the Banten Provincial Health Office, Tangerang City recorded 271 new cases of HIV in 2023, contributing to the overall 17,680 cases reported in Banten Province. The increase in cases can be attributed to a combination of factors, including limited awareness about HIV prevention, stigma, and gaps in healthcare access. Peer support plays a crucial role in increasing adherence to antiretroviral therapy (ART) among HIV-positive adolescents in Tangerang City, where stigma, psychological distress, and social barriers often undermine consistent treatment. This study focuses on how patients experience ARV treatment and how patients interpret their experiences. A qualitative phenomenological research design was chosen to obtain in-depth individual information according to their experiences and disease conditions. Participants were determined using purposive sampling techniques, totalling seven people. The researcher was the main instrument in the study. In-depth interview techniques were conducted using recording tools and semi-structured interview guides, as well as field notes. Data analysis uses qualitative content analysis with the Collaizi approach. The study found that there were several main themes, including peer volunteer support, peer volunteer obstacles, helped treatment, opponent motivation, ARV drug information, getting through drug withdrawal, participant roles, and peer volunteer expectations.

Keywords: ARVs; Compliance; HIV; Peer Volunteers

Nurses' Knowledge and Practice about Nurses Practitioner Roles in Madinah City in Saudi Arabia

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Abstract

According to the Saudi healthcare transformation strategy, the Kingdom's population is growing and aging. Predictions indicate that Saudi Arabia's population will rise from 36.1 million in 2022 to 39.5 million in 2030. Increasing medical expenses, increasing numbers of people, and a human resource deficit all pose obstacles to providing the global demand for quality patient care. The NPs play a wide range of roles, including aiding patients in making decisions, supporting family and client involvement, providing reliable care, enhancing patient satisfaction, improving interpersonal communication and professional relationships, lowering rates of morbidity and mortality, increasing treatment compliance, increasing productivity, and lowering healthcare costs. Thus, this study aims to assess the nurses' knowledge and practice about nurse practitioner roles in Madinah City in Saudi Arabia. This study will implement a quantitative methodology with a cross-sectional design. Four hospitals located in Madinah City will be included in this study, including Ohud Hospital, Madinah General Hospital, King Fahd Hospital, and Maternity and Children Hospital. The estimated sample size in this study is 325, and a convenience sampling strategy will be used in this investigation. The targeted sample will receive an electronic copy of the survey through Google Form. Descriptive statistics will be employed to examine the sociodemographic characteristics of the participants as well as their responses to the research questionnaire. Necessary ethical approvals will be taken to run this study.

Keywords: *Healthcare Transformation; Madinah City; Nurse Practitioner Roles; Nurses' Knowledge; Quantitative Methodology*

Evaluating the Effectiveness of Virtual Clinic Follow-Up and Nurse-Led Telehealth Interventions on Patient Satisfaction and Hospital Readmission Rates among Pediatric Patients in King Faisal Specialist Hospital and Research Centre, Madinah, Saudi Arabia

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Abstract

This study investigates the effectiveness of post-discharge virtual clinic follow-up and nurse-led telehealth interventions for patient satisfaction and hospital readmission rates among paediatric patients in Madinah, Saudi Arabia. The study takes into account the growing dependence on telehealth services. A cohort of paediatric patients discharged from a leading hospital in Madinah was monitored over a six-month period. The study employed a mixed-method approach, utilising quantitative data from hospital records to analyse readmission rates and qualitative surveys to gauge patient and carer satisfaction with telehealth services. The virtual follow-up included scheduled video consultations and remote monitoring, while nurse-led interventions provided ongoing support and education. Preliminary results indicate a significant reduction in readmission rates among patients who participated in the virtual follow-up and nurse-led interventions compared to those who received standard post-discharge care. Additionally, patient satisfaction scores were markedly higher in the telehealth group, highlighting the benefits of accessible care and continuous support. This research underscores the potential of integrating telehealth solutions in paediatric care, suggesting that such interventions can enhance patient outcomes and overall satisfaction. The findings advocate the adoption of similar virtual follow-up programs in healthcare systems to improve the quality of care for paediatric patients, particularly in regions with limited access to in-person follow-ups. Further studies are recommended to explore the long-term effects of these interventions and their scalability in diverse healthcare settings.

Keywords: Nurse-led Interventions; Paediatric Patients; Readmission Rates; Telehealth; Virtual Clinic Follow-up

Effectiveness of an e-Module and Its Impact on Controlling Hypertensive Episodes as Part of a Lifestyle Intervention among Obese Adults

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Abstract

Background: In the city of Madinah, a notable gap exists in the realm of awareness programs aimed at curbing the rising incidences of obesity. **Results:** A quasi-experimental study using purposive sampling was conducted with 168 obese participants, including 86 in the experimental group and 82 in the control group, based on specific inclusion and exclusion criteria. The enrolled participants took the same pre- and post-tests. The newly created lifestyle survey questionnaire, used as both pre- and post-tests, combined the Impact of Weight on Quality of Life-Lite (IWQOL-Lite) and the Hypertension Quality of Life Questionnaire (HQLQ), with adaptations made for the Saudi context. **Results:** The results of the Wilcoxon signed-rank test, conducted for 86 participants in the experimental group and 82 participants in the control group across the following lifestyle factors: "Diet as a Lifestyle," ($p < 0.05$) "Emotional Feeling as a Lifestyle," ($p < 0.05$) "Career Pressure as a Lifestyle," ($p < 0.05$) "Activities of Daily Living as a Lifestyle," ($p < 0.05$) "Exercise as a Lifestyle," ($p < 0.05$) and "Sleep Pattern as a Lifestyle," ($p < 0.05$) revealed significant differences in the experimental group while no significant changes ($p > 0.05$) were observed in the control group across all factors. **Conclusion:** An e-module can be an effective tool for changing the lifestyle among obese adults in controlling hypertension. The highest-ranking lifestyle factors, along with the second rank, were identified as "Exercise as a Lifestyle" and "Diet as a Lifestyle," respectively, based on their significant impact on controlling hypertension among obese adults.

Keywords: Adults; e-Module; Lifestyle; Obesity; Saudi

Effectiveness of an e-Module on Rehabilitative Nursing Care for Enhancing the Quality of Life in Amputated Trauma Patients

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Abstract

Background: Saudi Arabians need rehabilitation programs for the overwhelming population of amputated trauma patients in Madinah city. **Methods:** A quasi-experimental study was conducted using convenience sampling, guided by specific inclusion and exclusion criteria, to recruit 104 participants, divided into 52 in the experimental group and 52 in the control group. The Prosthesis Evaluation Questionnaire (PEQ) and the Trinity Amputation and Prosthesis Experience Scales (TAPES) were combined into a single, newly developed survey questionnaire tailored to the Saudi Arabian context, designed for use in evaluating pre- and post-test outcomes. *T*-test and ANOVA determined the e-module's effectiveness in improving the physical, mental, and spiritual domains of the quality of life among amputated trauma patients. **Results:** The paired *t*-test results showed a statistically significant improvement in the experimental group's pre- and post-test scores ($t(52) = 9.45, p < 0.001$), while the control group showed no significant change ($t(52) = 1.24, p = 0.22$). The ANOVA results revealed significant differences across the physical, mental, and spiritual domains of quality of life among the groups, with $F(2, 153) = 12.34, p < 0.001$, indicating that the e-module had a substantial impact on these domains compared to the control condition. The most dominant domain of improvement following the intervention was the physical domain, which showed the greatest significant change as compared to the mental and spiritual domains. **Conclusion:** An e-module can serve as an effective method for improving the quality of life for amputated trauma patients in Madinah city.

Keywords: Amputated; e-Module; Quality of Life; Rehabilitation; Saudi

Effectiveness of an e-Module on Enhancing the Health-Related Quality of Life among Diabetic Patients' Post-Surgical Amputation in Saudi Arabia

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Abstract

Background: The issue centres on the limited accessibility and effectiveness of educational resources for diabetic patients following surgical amputation in Saudi Arabia. **Methods:** A quasi-experimental study was carried out using purposive sampling, following particular inclusion and exclusion criteria. The study included 80 diabetic patients who had undergone surgical amputation, with 40 in the experimental group and 40 in the control group. The Dielessen Amputee Quality of Life (DAQOL) was adapted to the Saudi context, incorporating domains such as vitality, physical functioning, role physical, and social functioning to assess the health-related quality of life. **Results:** The Mann-Whitney U-test results for vitality ($U = 350$, $p < 0.05$), physical functioning ($U = 320$, $p < 0.01$), and role physical ($U = 310$, $p < 0.05$) showed significant differences between the experimental and control groups, while the Kruskal-Wallis test for social functioning revealed a statistically significant difference between the groups ($H = 12.45$, $p < 0.01$). **Conclusion:** An e-module can serve as an effective resource for improving the health-related quality of life in diabetic patients following surgical amputation.

Keywords: Diabetic; e-Module; Health-Related Quality of Life; Post-Surgical Amputation; Saudi

Enhancing Quality of Life among Patients with Renal Disease Undergoing Home-Based Peritoneal Dialysis in Saudi Arabia

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Abstract

Background: The elevated prevalence of end-stage renal disease (ESRD) and undergoing health education seminars to learn home-based peritoneal dialysis underscore a pressing health challenge in communication and documentation of the training the patients received. **Methods:** A quasi-experimental study employing convenience sampling was carried out, adhering to defined inclusion and exclusion criteria, to recruit 70 participants, evenly split into 35 for the experimental group and 35 for the control group. The Kidney Disease Quality of Life (KDQOL-36™) survey was adapted to the Saudi Arabian context, incorporating the domains of General Health, Social Well-being, and Vitality to determine the quality-of-life outcomes before and after the intervention. *T*-test and ANOVA determined the e-module's effectiveness in improving the domains of the quality of life among patients with ESRD. **Results:** The *t*-test results compared pre- and post-intervention scores for 35 participants in the experimental and control groups, revealing significant improvements in the experimental group ($p \leq 0.05$). The ANOVA results showed significant differences among the domains of General Health, Social Well-being, and Vitality, with *F*-values indicating the greatest variance in Vitality ($F = X.XX$, $p < 0.05$), followed by Social Well-being ($F = Y.YY$, $p < 0.05$) and General Health ($F = Z.ZZ$, $p < 0.05$). **Conclusion:** An e-module can serve as an effective method for improving the quality of life for ESRD patients undergoing home-based peritoneal dialysis in Saudi.

Keywords: *e-Module; ESRD; Peritoneal Dialysis; Quality of Life*

Effectiveness of an e-Module for Nursing Skills Development on Using Mechanical Ventilators among Adult Patients Admitted to the Intensive Care Units

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Abstract

Background: In the realm of intensive care nursing, the demand for proficient skills in continuing education using e-modules is paramount. **Methods:** A quasi-experimental study was conducted using purposive sampling based on specific inclusion and exclusion criteria. The study involved 97 intensive care unit nurses, with 58 experimental and 39 control. The enrolled participants took the same pre- and post-tests divided into multiple-choice questions and a competency skills checklist with a designated passing score. A t-test was used to determine the effectiveness of the e-module. **Results:** A detailed independent *t*-test analysis revealed significant differences with higher post-test scores in the experimental group ($p < 0.05$). The pre-test results indicated that all participants failed the multiple-choice exam component ($p \geq 0.05$), while 100% successfully passed the skills demonstration checklist ($p \leq 0.05$). In the post-test evaluation, all participants successfully passed, with a calculated probability of 1.0 (100%) success rate for overall performance across both assessments. The paired *t*-test revealed a non-significant difference in pre-test scores between the control ($M = 62.3$, $SD = 4.5$) and experimental groups ($M = 62.7$, $SD = 4.8$), $t(95) = 0.42$, $p = 0.68$, but a significant improvement in post-test scores for the experimental group ($M = 85.2$, $SD = 3.9$) compared to the control group ($M = 65.1$, $SD = 4.3$), $t(95) = 19.87$, $p < 0.001$. The Pearson correlation showed a weak, non-significant relationship ($r = 0.12$, $p > 0.05$) between the multiple-choice exam and competency checklist pre-experiment, but a strong, significant positive correlation ($r = 0.85$, $p < 0.001$) post-experiment. **Conclusion:** An e-module can be an effective tool for nursing skills development on using mechanical ventilators among adult patients admitted to the intensive care unit. A varying baseline competency in theoretical knowledge versus practical skills was concluded.

Keywords: e-Module; Intensive Care Unit; Mechanical Ventilators; Nursing Skills; Saudi

Effectiveness of an e-Module on Enhancing the Quality of Life among Patients with Breast Cancer in Saudi Arabia

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Abstract

Background: The problem at hand revolves around the insufficient support and online resources available to breast cancer patients in Saudi Arabia, hindering their overall QOL across physical, emotional, mental, financial, and spiritual domains. **Methods:** A quasi-experimental study was employed. Convenience sampling was used with inclusion and exclusion criteria for 250 enrolled participants, having 130 experimental and 120 control. The European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30) was used to evaluate the pre- and post-test. *T*-test and ANOVA were used to determine the effectiveness of the e-module among patients with breast cancer on enhancing the 5 domains of their quality of life. **Results:** A statistically significant difference between experimental and control groups ($F(2, X) = Y, p < 0.05$), highlighting the impact of the e-module. For the experimental group ($n = 130$), there was a significant improvement in scores after the intervention ($M_1 = X, SD_1 = Y$) compared to before ($M_2 = Z, SD_2 = W$), $t(df) = T, p < 0.05$. In contrast, the control group ($n = 120$) showed no significant change in scores before ($M_3 = A, SD_3 = B$) and after ($M_4 = C, SD_4 = D$), $t(df) = T', p > 0.05$. The spiritual, financial, physical, emotional, and mental domains of quality of life were all statistically significant, with $p < 0.05$ for each domain. Among these, the spiritual domain showed the highest improvement. **Conclusion:** An e-module can be an effective tool for enhancing the quality of life among breast cancer patients in Saudi Arabia by providing accessible education, psychological support, and tailored interventions.

Keywords: Breast Cancer; e-Module; Quality of Life; Saudi

Relational Theory-Based Communication Strategies for Optimizing Independence and Quality of Life among the Elderly in the Community: A Systematic Review

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Abstract

Background: The elderly face various challenges in maintaining independence and quality of life, primarily due to physical, psychological, social, and economic changes. Aging often leads to physical and mental decline, as well as reduced social functioning, making it difficult for the elderly to adapt to their environment or even their own families. Therefore, it is necessary to employ a method, tactic, or strategy to ensure that messages can be effectively conveyed, understood, and implemented by the elderly. Relational theory-based communication strategies emphasize the importance of interpersonal relationships and effective communication in building emotional support, trust, and motivation to remain active. Research **Methods:** The systematic review was conducted following the PRISMA guidelines. Searches were performed across Scopus databases for studies published between 2019 and 2024. Out of 446 identified articles, 10 articles met the inclusion criteria for review using the specified keywords. **Results:** The findings indicate that creating positive communication patterns helps the elderly overcome social isolation and psychological pressures often encountered with aging. A community-based approach provides opportunities for the elderly to interact, contribute, and feel valued as part of society, thereby enhancing their quality of life. **Conclusion:** Future strategies should focus on integrating healthcare personnel with interpersonal communication based on relational theory to ensure a holistic and significant impact on the quality of life of the elderly.

Keywords: *Elderly; Relational Theory; Communication Strategies, Quality of Life; Independence; Community-Based Approach*

Self-Concept Overview of Drug Abuse Patients Undergoing Rehabilitation at the Young Generation Rehabilitation Foundation (Gemuni)

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Abstract

Concept of self is an assessment of self including self-image, ideal life, value of life, self-identity and self-esteem. This study uses a quantitative method with a cross-sectional design. The sampling method is total sampling with a total sample size, patients at the Gemuni Achanyak Rehabilitation Foundation are 30 people. Data collection tools using questionnaires, valid concepts in drug abuse patients undergoing rehabilitation. The purpose of this study was to determine the description of the concept and drug abuse patients who are undergoing rehabilitation at the Gemuni Young Generation Rehabilitation Foundation. The results showed that 60% of patients had a positive self-concept with high scores on the ability to adapt and hope for the future. On the other hand, 40% showed a negative self-concept with high scores in self-confidence and self-worth. The self-concept of drug abuse patients can have a significant influence on the success of rehabilitation. An approach that emphasizes strengthening positive aspects can improve patient motivation and recovery outcomes. Recommendations for rehabilitation programs include the integration of self-development techniques and social support to strengthen positive self-concept.

Keywords: *Drug Abuse Patients; Self-confidence; Rehabilitation*

The Relationship Between Peer Support and Anxiety in Pre-Clinical Students at the Pekanbaru Medical Center College of Health Sciences

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Abstract

Anxiety, commonly referred to as anxiety, is a feeling that is very common for everyone to experience. Anxiety also frequently occurs in preclinical students. Anxiety disorders are caused by excessive feelings of fear or worry that persist. The purpose of this study is to explore the role of peer support in relation to anxiety at the Pekanbaru Medical Centre College of Health Sciences. It is hoped that this peer support model can be applied at the Pekanbaru Medical Centre College of Health Sciences when supporting pre-clinical students. This study aims to examine the relationship between peer support and anxiety in pre-clinical students at the Pekanbaru Medical Centre College of Health Sciences. The design of this study is quantitative, and the analysis used is univariate analysis. The sample size in this study was 70 respondents. The instruments used were a peer support questionnaire and an anxiety questionnaire. The results of the statistical tests indicated a relationship between peer support and anxiety in preclinical students at the Pekanbaru Medical Centre College of Health Sciences, with peer support at 82.9 and anxiety (HARS) at 67.1. According to the chi-square test, a p -value of 0.003 ($p < 0.001$) was obtained, which indicates a significant relationship between peer support and anxiety in pre-clinical students at the Pekanbaru Medical Centre College of Health Sciences.

Keywords: Anxiety; Pre-clinical; Peer Support Relationships

The Effect of Knowledge Sharing on Patient Safety on the Implementation of Patient Safety Goals at PMC Hospital in Pekanbaru City

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Abstract

Patient safety is a form of the Indonesian Government's attention to patient safety issues in Indonesia where the regulation states six Patient Safety Targets (SKP) which must be implemented by every hospital in Indonesia. This research is a quantitative research with a One Shot case-study design. The aim of this research is to find out the influence of knowledge sharing about patient safety on the implementation of patient safety targets at the PMC Hospital in Pekanbaru City. In this study the number of respondents was 30 people, with a purposive sampling technique. The results of research conducted using the Knowledge Sharing and International Patient Safety Goals (IPSG) questionnaire sheets showed that the majority of respondents were in the Implementation (27%) and medium (73%) categories. The data analysis technique uses the t test which results in a p -value of $0.00 < \alpha = 0.05$, which means that there is an influence of Knowledge Sharing on the implementation of patient safety targets. The suggestions in this research are that Pekanbaru Medical Center Hospital is advised to maintain and further improve knowledge sharing. If knowledge sharing is increased, it will increase nurses' knowledge and ability to work and reduce patient safety incidents.

Keywords: *Hospital; Knowledge Sharing; Nursing Patient Safety*

Effectiveness of Self-Efficacy of the 4A Method (Avoid, Alter, Accept and Adapt) on the Work Stress of Nurses at Pekanbaru Medical Center (PMC) Hospital

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Abstract

Work stress is a significant issue for nurses, requiring serious consideration and management. It manifests as an emotional and physical response from employees to various work demands. The 4A method of self-efficacy (avoid, alter, accept, and adapt) is an intervention by teaching them to be able to manage stress on themselves and feel confident that they can effectively handle the events and situations they are facing. The purpose of this study is to find out how effective self-efficacy is against the work stress of nurses at Pekanbaru Medical Center Hospital. This research is quantitative research using the "Pre-Experiment" research method with a one group pre-test- post-test design. The sample used was 30 respondents with the Purposive Sampling technique. This research instrument uses the ENSS (Expanded Nursing Stress Scale) Nurse Work Stress questionnaire sheet. Bivariate data analysis using the Paired Sample *t*-Test. It was found that the distribution of work stress of pretest nurses ($p=0.319$) and posttest ($p=0.72$) meant that the data was normally distributed with a value of $p > 0.05$. Suggestions for hospitals to be able to use the 4A method self-efficacy techniques (avoid, alter, accept and adapt) to reduce stress levels at least once in six months.

Keywords: 4A Method (Avoid, Alter, Accept and Adapt); Self-Efficacy; Work Stress

Overview of Nurse Performance in Providing Nursing Care at Pekanbaru Medical Center Hospital

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Abstract

The quality of care provided by nurses can determine the quality of hospital services. Nurse performance serves as a measure of nursing services; patients may complain about poor nurse performance. It can be used to show the level of success of hospital services, which indirectly shows the ability of nurses to meet nursing care standards. Nurses, as a professional occupation, are responsible for providing nursing services with competence and authority, both independently and in collaboration with other health members. The purpose of this study was to determine the description of nurse performance in providing nursing care at Pekanbaru Medical Center Hospital in 2024. This research design is descriptive quantitative with a population of 84 nurses with total sampling technique. The research tool utilized in this study is a nurse performance questionnaire. Characteristics of respondents based on age, the majority of nurses were 60 respondents (71.4%) with an age range (26-35 years), the gender of the majority of nurses as many as 68 respondents (80.9%) were female. The majority of nurses have a working period of 55 respondents (65.4%) with a working period of ≥ 2 years. The majority of nurses' education as many as 48 respondents (57.1%) with Bachelor of Nursing. According to the study's findings, nurses at Pekanbaru Medical Center Hospital performed generally in the Good 35 responden (41,6%) and Fair 49 responden (58,3%) categories. Therefore, nurses and hospitals should strive to improve performance to achieve higher performance categories, which will result in better quality of nursing care.

Keywords: Hospital; Nursing Care; Nursing Performance

The Effect of Brain Gym on Levels Learning Concentration for School-Age Children (10 – 11 Years Old) at MIS Ar-Rahman Pekanbaru City

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Abstract

The ability of children to focus on learning and distinguish between good and bad things is often limited, particularly among elementary school-age children. This study aims to examine the influence of brain gymnastics on the level of learning concentration in school-age children (10-11 years old) at MIS Ar-Rahman, Pekanbaru City. The research employs a pre-experimental design in the form of a one-group pretest-posttest. The sample consists of 31 respondents, selected using total sampling. Data was collected through the Army Alpha Intelligence Test (AAIT). Data analysis included both univariate and bivariate analysis. The results of the study, which assessed the effect of brain gymnastics on learning concentration, showed a p -value of 0.00 (≤ 0.05) after the intervention, indicating a significant effect. It is recommended that the school incorporate brain gym activities into their program to help improve student focus and learning activities.

Keywords: *Brain Gym; Learning Concentration Level; School-Age Children*

Description of the Level of Depression in the Elderly in the Working Area of the Payung Sekaki Community Health Center, Pekanbaru City

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Abstract

Depression in the elderly is a mental health problem that is increasingly receiving attention, especially because its symptoms often go undetected. It can arise due to various physical, psychological, and social changes associated with the aging process. This study employed a quantitative descriptive method with a cross-sectional design. The population consisted of all elderly individuals aged 60 years and above, totaling 441 people living in the work area of the Payung Sekaki Health Center, which has the largest elderly population in Pekanbaru. The sampling technique used was purposive sampling, resulting in a sample of 99 elderly respondents. The measuring instrument used was the Geriatric Depression Scale (GDS). Based on the data from the Payung Sekaki Health Center, 59 respondents (59.0%) were women, while 41 respondents (41.0%) were men. The majority of respondents were aged between 60 and 69 years, accounting for 59 respondents (59.0%). The analysis revealed that most respondents in the Payung Sekaki Health Center work area fell into the "presenium" age group (60 years). In terms of depression levels, the findings showed that 31 respondents (31.0%) experienced moderate depression. Women constituted the majority of the respondents experiencing moderate depression.

Keywords: *Depression Level; Elderly; Geriatric Depression Scale*

Android Based Application in Managing Type 2 Diabetes Mellitus Patients: A Systematic Review

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Abstract

Introduction: The most common factors contributing to premature death in patients with Type 2 Diabetes Mellitus (T2DM) are unhealthy behaviors and poor self-care management, which often lead to complications. This study aims to analyze Android-based applications used in the management of patients with T2DM. **Methods:** The study utilized online databases, including ScienceDirect, Web of Science, Scopus, and PubMed. Systematic reviews published between 2018 and 2023 were identified using the keywords "Android-based app," "type 2 diabetes mellitus," "digital health application," and "mHealth app." The search results were screened using inclusion and exclusion criteria, which involved checking for duplicate articles, excluding irrelevant titles, and narrowing the focus to studies involving T2DM patients. A complete assessment of the selected articles was conducted. **Results:** Based on the eligibility criteria, 9 journals out of 320 were identified for further analysis. All self-care interventions using smartphone apps demonstrated significant effects in controlling blood glucose levels, such as Fasting Blood Sugar (FBS) or HbA1c. However, previous studies revealed a weak correlation between smartphone app usage and self-care behaviors due to low engagement with the apps during the study period. **Conclusion:** Various self-care interventions implemented through smartphone apps have been shown to improve the management of T2DM patients. Health professionals are encouraged to select appropriate apps with user-friendly features and to investigate the efficacy of these apps across different demographic groups.

Keywords: Android; Application; Mobile Health; Type 2 DM

Analysis of Patient Safety Culture at Pekanbaru Medical Center Hospital

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Abstract

Patient safety is the reduction of the risk of undue harm associated with acceptable general healthcare services. Data from Pekanbaru Medical Center Hospital from 2021 to 2024 showed incidents of KTD (Unintentional Events), KNC (Near-Miss Events), and KTC (Non-Injury Events) in the form of incorrect medication administration, falls in the bathroom, wrong patient transfers, and wrong doctor calls, exceeding the established standard of zero incidents. This study uses a quantitative method with a cross-sectional design. The sampling method is total sampling with a sample size of all hospital employees, totaling 64 people. Data collection tools included a valid patient safety culture questionnaire, namely the Agency for Healthcare Research and Quality (AHRQ). The purpose of this study was to determine the description of patient safety culture at Pekanbaru Medical Center Hospital as observed across 12 dimensions of patient safety culture according to AHRQ. The results of the study showed that the patient safety culture at Pekanbaru Medical Center Hospital, with the highest positive strong cultural responses, included support for patient safety (50%), feedback and communication about errors (70%), and cooperation within the unit (40%). The dimensions with moderate positive cultural responses included overall perceptions of patient safety (50%) and frequency of incident reporting (50%). The conclusion of this study was that, of the twelve dimensions studied, there were two dimensions with moderate positive cultural responses. It is recommended that Pekanbaru Medical Center Hospital improve its patient safety culture and socialize patient safety issues in every room.

Keywords: AHRQ; Nurses; Patient Safety Culture

Overview of Diabetes Mellitus Patients' Knowledge about Diabetes Self-Management Education at Garuda Pekanbaru Health Center

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Abstract

Diabetes mellitus is a chronic disease in which the pancreas cannot produce enough insulin or the body is not effective in using it. Diabetes mellitus is a type of degenerative disease that is increasing every year in countries around the world. The purpose of this research is to assess the overview of diabetes mellitus patients' knowledge about diabetes self-management education at the Garuda Pekanbaru Health Center. The sample used consisted of 105 respondents, using the DKQ-24 questionnaire as the measuring tool. The results showed that most of the respondents, 63.8%, had a relatively low level of knowledge, with a score below 55. A total of 23.8% of respondents had a sufficient level of knowledge, with a score between 56 and 75, while 12.4% of respondents had a good level of knowledge, with a score between 76 and 100.

Keywords: *Diabetes Self Manajemen Education; Health Education; Knowledge; Type 2 Diabetes Melitus*

The Effect of Kadza (Napza Education Card) Media Education on the Level of Knowledge Napza Abuse among High School Adolescents in Keritang District

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Abstract

Drug abuse among teenagers is a common issue today. Illegal drugs (narcotics) have altered students' thinking patterns and academic performance. This research is quantitative, using a pre-experimental method with a one-group pretest-posttest design. The aim is to determine how much influence KADZA education (Napza Education Card) has on the level of knowledge about NAPZA abuse (Narcotics, Alcohol, Psychotropics, and Addictive Substances) among high school teenagers in Keritang District. In this study, the number of respondents was 57, with the data collection method using Stratified Random Sampling. The results of research conducted using a Level of Knowledge About Napza questionnaire sheet showed that the majority of respondents were in the Good category (83%) and the Fair category (17%). The data analysis technique used the Wilcoxon Signed Rank Test, which resulted in a p -value of $0.00 < \alpha = 0.05$, indicating that there is an educational influence of the KADZA card game (Napza education cards) on the level of knowledge of high school students in Keritang District. Suggestions from the research are that it is hoped KADZA media can be used as a learning medium in schools to provide Napza education, increasing students' knowledge and helping prevent Napza abuse.

Keywords: *Drugs; High School Adolescents; Kadza Card; Knowledge*

The Impact of Discharge Planning Continuity on the Independence of Daily Living Activities in Mental Disorder Patients at Home

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Abstract

Discharge planning is a process aimed at ensuring that patients with mental disorders can continue adequate treatment at home and within their environment after being discharged from hospitals or rehabilitation centers. This process focuses on enhancing patients' independence, particularly in performing daily living activities such as eating, bathing, self-care, dressing, urination, defecation, and toilet use, while also minimizing the risk of relapse. Disease recurrence often results from the failure of patients or their families to adhere to the recommendations provided during hospitalization. The main benefit of discharge planning is enabling patients and families to independently manage care after discharge. This study aims to investigate the relationship between the continuity of discharge planning implementation at home and the independence of daily living activities (ADL) in patients with mental disorders. A quantitative method with a cross-sectional approach was employed. The study population consisted of families accompanying patients during outpatient control visits at the Tampan Mental Hospital. Data collection was conducted using questionnaires, and the statistical analysis utilized the chi-square test. The findings revealed a p -value of 0.000 ($p < 0.05$), indicating a significant relationship between the continuity of discharge planning implementation at home and ADL independence in mental disorder patients. This study recommends that discharge planning should be carried out by nurses with effective and targeted communication to ensure that patients and families fully understand the care guidelines. This understanding is critical for enabling patients and families to continue appropriate care independently at home.

Keywords: ADL Independence; Discharge Planning; Mental Disorders

Description of Co-morbidities and Blood Glucose Levels in Patients with Diabetes Mellitus in the Garuda Health Center Work Area, Pekanbaru

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Abstract

Diabetes mellitus is a metabolic disease characterized by hyperglycemia due to impaired insulin secretion and insulin resistance. Diabetics often experience acute and chronic complications, such as retinopathy, nephropathy, neuropathy, hypertension, and stroke. The purpose of this study was to describe comorbidities and blood glucose levels in patients with diabetes mellitus in the working area of the Garuda Pekanbaru Health Center. This type of research uses quantitative descriptive survey methods on 105 respondents using purposive sampling techniques. The results of this study showed that respondents had poor blood glucose levels. Macrovascular comorbidities were found in 60% of respondents, including hypertension (41.0%) and heart problems (19.0%), while microvascular diseases were found in 40% of respondents, including retinopathy (15.2%), nephropathy (11.4%), and neuropathy (13.3%). This means that the majority of respondents (76.2%) have suffered from diabetes mellitus for more than 2 years, and the most common comorbidity is hypertension. The suggestion of this study is that the Garuda Health Center needs to increase education and manage blood glucose levels regularly to prevent further complications.

Keywords: *Blood Glucose Level; Comorbidities; Diabetes Mellitus; Microvascular Complications*

Effectiveness of Giving Lavender Aromatherapy on Anxiety Levels Final Year Students at STIKes Pekanbaru Medical Center

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Abstract

Students working on assignments can experience feelings of anxiety, such as feeling incapable of completing the assignment, feeling very sad, having disturbed thought patterns, lacking self-confidence, suddenly experiencing dizziness, and sometimes becoming angry or offended by small things. This research is quantitative, using a pre-experimental method with a one-group pretest-posttest design. The aim was to determine the anxiety levels of undergraduate nursing and nutrition students at STIKes Pekanbaru Medical Center. In this study, the number of respondents was 30, with the data collection method using purposive sampling. The results of the research, conducted using the Zung Self-Rating Anxiety Scale (ZSAS) questionnaire, showed that measuring the level of anxiety before (pre-test) the lavender aromatherapy intervention was carried out resulted in a mean value of 3.27 with a standard deviation of 450. Measurement of anxiety level after (post-test) the lavender aromatherapy intervention showed a mean value of 1.97 with a standard deviation of 415. According to the results of the Wilcoxon Signed Rank Test statistical data analysis, it was found that $p\text{-value} = 0.00 < 0.05$, and it can be concluded that H_a is accepted.

Keywords: Anxiety; Aromatherapy; Lavender; Students

The Relationship between Smartphone Addiction and Sleep Quality of Nursing Students at STIKes Pekanbaru Medical Center

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Abstract

The bright light or blue light produced by smartphones can make someone stay awake, especially when using smartphones at night, which can inhibit the production of the hormone melatonin. This study is quantitative, using a cross-sectional method. The aim is to determine the relationship between smartphone addiction and sleep quality among nursing students at STIKes Pekanbaru Medical Center. In this study, the number of respondents was 100, with data collection using total sampling. The results of the study, conducted using the Smartphone Addiction Scale Short Version (SAS-SV) and Pittsburgh Sleep Quality Index (PSQI) questionnaires, showed that the majority of respondents were in the addiction category (83%) and the non-addiction category (17%). The data analysis technique used the Chi-Square Test, which resulted in a p -value of $0.362 \leq \alpha = 0.05$, meaning that there is no significant relationship between smartphone addiction and sleep quality among students at STIKes Pekanbaru Medical Center. Suggestions from this study aim to educate about the use of smartphones and their impact on sleep quality to improve overall sleep quality.

Keywords: *Addiction; Sleep Quality; Smartphone; Students*

The Effect of Tepuk Sorak Massage (Press, Tap, Rub and Move) on Blood Pressure in Hypertensive Patients at the UPTD Puskesmas Rejosari Pekanbaru

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Abstract

Hypertension is a health condition that requires appropriate pharmacological and non-pharmacological treatment, as it can trigger various dangerous complications such as heart disease, stroke, and kidney issues. This study aims to analyze the effect of the "Tepuk Sorak Massage" technique on blood pressure in patients with hypertension. The sample in this study consisted of 30 respondents. The sampling technique used was purposive sampling, with inclusion criteria for respondents being women with hypertension, those without complications, and those who do not regularly consume medication. Data collection was conducted using observation sheets. The data analysis utilized univariate and bivariate analyses, employing the paired sample t-test. The results of the study after administering the "Tepuk Sorak Massage" technique to the blood pressure of patients with hypertension showed a systolic p-value of 0.00 and a diastolic p-value of 0.00, both ≤ 0.05 . It is recommended that the health center provide information regarding the "Tepuk Sorak Massage" technique as complementary support to pharmacological therapy for hypertension. The community of Puskesmas Rejosari, who have been exposed to this massage, can disseminate that the "Tepuk Sorak Massage" can serve as a non-pharmacological treatment therapy.

Keywords: *Blood Pressure; Hypertension; Tepuk Sorak Massage*

The Effect of Smoking Education and Smoking Prevention with the Focus Group Discussion Method on Students' Knowledge of the Dangers of Smoking at Smp Negeri 4 Peranap

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Abstract

Smoking is a problem that is most detrimental to the health of the Indonesian people, especially teenagers and school-age children who are following developments over time. The aim of this research is to determine the effect of smoking education and prevention on students' knowledge about the dangers of smoking. This type of research uses quantitative methods with a pre-experimental research design, one group pretest-posttest. The sample for this research consisted of 63 respondents, with the inclusion criteria being students of SMPN 4 Peranap. The sampling technique used the total sample method. Data collection used a questionnaire sheet. Analysis of the research data employed the *t*-test statistical test, which obtained a *p*-value of 0.00, indicating that there is an influence of smoking prevention education on students' knowledge. It is hoped that the suggestions from this research can provide educational information and knowledge about the dangers of smoking to students.

Keywords: *Dangers of Smoking, Knowledge; Smoking Prevention; Students*

The Effect of 5R (Ringkas, Rapi, Resik, Rawat, Rajin) Education and Implementation on Job Satisfaction among Nurses at PMC Hospital

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Abstract

Increasing job satisfaction as an outcome is important because it relates to nurse health, productivity, and nurse performance, with direct consequences for the quality and safety of nurse and patient services. This research is quantitative, using a pre-experimental method with a one-group pretest-posttest design. The aim is to determine how much influence education and application of the 5Rs (Ringkas, Rapi, Resik, Rawat, and Rajin) have on nurses' job satisfaction at PMC Hospital. In this study, the number of respondents was 30, with the data collection method using purposive sampling. The results of research conducted using the Mueller Satisfaction Scale (MMSS) questionnaire showed that the majority of respondents were in the satisfied category (70.0%) and in the very satisfied category (30.0%). The data analysis technique used the Wilcoxon Signed Rank Test, which resulted in a p-value of $0.02 < \alpha = 0.05$, indicating that there is an influence of education and the implementation of 5R on job satisfaction among nurses at PMC Hospital. The suggestions from this research are that education and application of the 5R (Ringkas, Rapi, Resik, Rawat, and Rajin) can be used as a method to increase job satisfaction at PMC Hospital.

Keywords: *Education; Implementation of 5R; Job Satisfaction; Nurses*

The Effect of Tera Gymnastics on Blood Pressure in Elderly Patients with Hypertension at Simpang Tiga Health Center

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Abstract

Hypertension is one of the health problems that often occurs in the elderly and can cause various serious complications if left untreated. The purpose of this study was to determine the effect of tera gymnastics on blood pressure in the elderly with hypertension. This type of research uses quantitative methods with a one-group pretest-posttest pre-experimental research design. The population in this study consisted of 760 elderly people. The sample in this study amounted to 18 respondents with inclusion criteria: elderly respondents with hypertension and respondents aged 60-80 years. The sampling technique used was purposive sampling. Data collection was conducted using observation sheets. Data analysis in this study included univariate and bivariate analysis. The results of the study showed the effect of tera gymnastics on blood pressure in the elderly with hypertension after being given tera gymnastics. Using the *T*-test, the results showed systolic *p*-value = 0.001 and diastolic *p*-value = 0.001 ≤ 0.05. It is recommended that the Simpang Tiga Health Center provide information about tera gymnastics for the elderly as a non-pharmacological treatment to reduce blood pressure.

Keywords: *Blood Pressure in the Elderly; Hypertension; Tera Gymnastics*

The Effectiveness of Foot Massage on Foot Sensitivity in Diabetes Mellitus Patients at Pekanbaru Medical Center Hospital

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Abstract

Diabetes Mellitus (DM) is a chronic metabolic disorder characterized by hyperglycemia due to impaired insulin production or insulin resistance. One of the most common complications in DM patients is peripheral neuropathy, which is characterized by decreased foot sensitivity. This can cause tingling, numbness, and increase the risk of diabetic foot ulcers and amputations. Decreased foot sensitivity can be treated with nonpharmacological interventions such as foot massage. This study aims to analyze the effectiveness of foot massage therapy in increasing foot sensitivity in DM patients at Pekanbaru Medical Center Hospital. Using quantitative research methods, the study employed a pre-experimental design with a one-group pretest-posttest approach. The research sample consisted of 30 DM patients who were selected by purposive sampling. Foot massage intervention was done for 15-20 minutes once a day for 3 consecutive days. Foot sensitivity was measured using a monofilament test at 10 foot points. The data were analyzed using the paired t-test statistical test for normally distributed data or the Wilcoxon test for abnormal data. The results showed that there was a significant increase in the sensitivity of the patients' feet after receiving foot massage therapy with $p = 0.000$ ($p < 0.05$). The effect of massage improves peripheral blood circulation and muscle relaxation, thereby helping to improve peripheral nerve sensitivity in DM patients. Foot massage therapy has been proven to be effective in increasing foot sensitivity in DM patients. This study contributes as a nonpharmacological complementary intervention in the management of diabetic neuropathy and foot sensitivity disorders. The study hopes that future researchers can involve a larger sample size and explore the provision of foot massage interventions related to the influence of blood glucose levels on foot sensitivity, so that the results of the study are more representative and comprehensive.

Keywords: Diabetes Mellitus; Foot Massage; Foot Sensitivity; Peripheral Neuropathy

Overview of Temper Tantrum Levels in Preschool Children Aged 4-6 Years at Mutiara Belia Kindergarten and Raudhatul Amilin Kindergarten Pekanbaru City

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Abstract

Temper tantrums are intense emotional outbursts that often occur in preschool children and are also a form of child behavior when their wishes are not obeyed. The purpose of this study was to determine the behavior of temper tantrums in Mutiara Belia Kindergarten and Raudhatul Amilin Kindergarten. This type of research uses a quantitative descriptive method. The sample of this study consisted of 60 respondents, with the inclusion criteria being children aged 4-6 years. Data collection was done using a questionnaire sheet to measure the level of temper tantrums in preschool children aged 4-6 years. The results showed the following temper tantrum levels: severe temper tantrums (65%), very severe temper tantrums (3.3%), moderate temper tantrums (13.3%), and mild temper tantrums (18.3%). This study is expected to provide insight for educators and parents in dealing with temper tantrums in preschool children. The suggestions from this study are intended to provide information related to the level of temper tantrums in preschool children aged 4-6 years.

Keywords: *Preschool Age; Temper Tantrum in Children*

The Effectiveness of Whatsapp Group Media Motivational Sentences on the Performance of Nurses at Pekanbaru Medical Center Hospital

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Abstract

Nurse performance is a form of professional service and includes a component of health services. It refers to the performance of nurses on duty in a hospital during the continuous provision of nursing services. The purpose of this study is to determine how effective motivational sentences in WhatsApp group media are on the performance of nurses at Pekanbaru Medical Center Hospital. This study is a quantitative research with a pre-experimental design using a pre-test post-test one-group approach. The sample used in this study consisted of 30 respondents, selected through purposive sampling in accordance with the research inclusion criteria. The research instrument used was a nurse performance questionnaire. Bivariate analysis was performed using the Wilcoxon Signed Rank Test. The results showed that the distribution of nurse performance pre-test ($p=1.37$) and post-test ($p=2.60$) indicated that the data was not normally distributed. The results of data analysis showed a significant increase in the average performance score before and after the intervention, from 1.37 to 2.60, with a p -value of $0.00 < 0.05$. The intervention has been shown to be effective in improving nurse performance motivation. It is recommended that Pekanbaru Medical Center Hospital apply motivational sentences to the Standard Operating Procedures (SOP) for nurse performance.

Keywords: Nurse; Performance; Work Motivation

The Relationship between Nurses' Attitudes and Implementation of Patient Safety Goals with Fall Risk Prevention Efforts at Pekanbaru Medical Center Hospital

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Abstract

Patient safety is an important part of health care, consisting of the complexity of the medical service framework and the prevention of hospital injuries. This study is a quantitative study that uses a cross-sectional research design. The purpose of this study was to determine the relationship between nurses' attitudes and the implementation of patient safety goals in efforts to prevent the risk of falls at Pekanbaru Medical Center Hospital. In this study, the number of respondents was 64, and the sampling method used was nonprobability sampling. The research was conducted using the Nurse Attitude Questionnaire, International Patient Safety Goals (IPSG), and the Fall Risk Prevention Efforts Questionnaire. The data analysis technique used the Chi-Square Test, which resulted in a p -value of $0.00 < 0.05$, indicating a relationship between nurses' attitudes towards fall risk prevention efforts and the implementation of patient safety goals towards fall risk prevention efforts. The suggestions from this study are expected to provide information to Pekanbaru Medical Center Hospital about the relationship between nurses' attitudes and the implementation of patient safety goals in efforts to prevent falls. It is recommended that hospital management increase the application of fall risk prevention education among nurses.

Keywords: *Attitude; Fall Risk; Patient Safety Goals*

Overview of the Knowledge Level of Adolescent Girls about Danger of Free Sex at Smk PGRI Pekanbaru

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Abstract

Adolescents are a group that is vulnerable to the influence of free sexual behavior, which can have negative consequences, including unwanted pregnancies and sexually transmitted infections. The purpose of this study was to analyze the knowledge of adolescent girls about the dangers of free sex. This type of research uses descriptive quantitative methods on 109 respondents, with the inclusion criteria being adolescent female respondents aged 15-17 years, using stratified random sampling techniques. Data collection was conducted using a questionnaire on the level of knowledge about free sex in adolescents. The results showed that out of 109 respondents, 52 respondents (47.7%) had good knowledge about the dangers of free sex, while 44 respondents (40.4%) had sufficient knowledge. However, there were still a small number of respondents with limited knowledge, with 13 respondents (11.9%). Therefore, most respondents are aware of the dangers of free sex. Suggestions from this study are that SMK PGRI schools should provide information and education about the dangers of free sex to help foster an anti-free sex generation in the future.

Keywords: Adolescent Girls; Free Sex; Knowledge

Overview of Pruritus Levels in Diabetes Mellitus Patients in the Garuda Health Center Working Area

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Abstract

Diabetes mellitus is a metabolic disorder that is genetically and clinically heterogeneous, with manifestations in the form of loss of carbohydrate tolerance. Complications of diabetes mellitus develop gradually. Although pruritus in DM patients is not a direct threat to the patient's life, it has a serious impact on the patient's quality of life and physical and mental health. The purpose of the study was to determine the level of pruritus in patients with diabetes mellitus at Garuda Health Center. The research design is a qualitative descriptive survey. The results, based on age, showed that DM patients were predominantly in the elderly category, with an age range of 46-65 years, totaling 78 people (74.3%). The results, based on education, found that the majority of DM sufferers had a high school education, totaling 61 people (58.1%). Based on occupation, the dominant DM sufferers were workers, with a total of 63 people (60%). The results showed that the level of pruritus in patients with diabetes mellitus in the mild itch category amounted to 53 people (50.5%), in the moderate itch category amounted to 39 people (37.1%), and in the severe itch category amounted to 13 people (12.4%). It is known that most DM respondents with pruritus are in the age range of 46-65 years. The suggestion of this study is that it can be used as a guideline in everyday life, especially to minimize the incidence of pruritus in patients with diabetes mellitus.

Keywords: *Diabetes Mellitus; Elderly Patients; Patient Care; Quality of Life*

The Effectiveness of Demonstration Media Health Education on Body Mechanics on the Risk of Musculoskeletal Injuries in Nurses of Pekanbaru Medical Center Hospital

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Abstract

Nurses are occupations that have a high risk of experiencing musculoskeletal disorders due to physically demanding work. Work that is at risk of causing injury includes patient ambulation, which usually causes discomfort, pain, and weakening of function. The demonstration method is a learning technique that presents a procedure or task, how to use tools, and how to interact. The purpose of this research is to determine the effectiveness of demonstration media health education on the level of musculoskeletal injury risk in nurses at Pekanbaru Medical Center Hospital in 2024. The design of this study uses quantitative research with the quasi-experimental research method by comparing control groups and experimental groups. The analysis used is univariate and bivariate analysis using the Wilcoxon Rank Test. The sample in this study consisted of 40 people, with 20 respondents in the control group and 20 respondents in the experimental group. The instrument in this study is the Nordic Body Map (NBM) questionnaire. The results of the statistical test showed that the mean pre-test and post-test after being given body mechanics education, with the mean pre-test before the educational intervention being 5.50 and the post-test after the educational intervention decreasing to 0.00. According to the results of the analysis of the statistical test data using the Wilcoxon Rank Test, $p\text{-value} = 0.005 < 0.05$, it can be concluded that there is an effectiveness or effect of health education on demonstration media about body mechanics on the risk of musculoskeletal injury in nurses at Pekanbaru Medical Center Hospital. The suggestion is that this demonstration media health education technique can be applied to reduce the risk of musculoskeletal injury in nurses at Pekanbaru Medical Center (PMC) Hospital.

Keywords: *Demonstration Method; Musculoskeletal Injury Risk*

Effectiveness of Zikir Therapy on Reducing Blood Glucose Levels During Diabetes Mellitus Type II Patients in the Garuda Health Center Working Area

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Abstract

Diabetes mellitus (DM) is a chronic metabolic disorder that can lead to serious complications if not managed properly. One potential nonpharmacological approach to help control DM is dhikr therapy. This therapy combines spiritual and relaxation elements that are believed to suppress stress hormones such as cortisol and improve body balance, thus helping to lower blood glucose levels. The objective is to analyze the effectiveness of remembrance therapy in lowering temporary blood glucose levels in patients with type II DM. The study used a quantitative method with a pre-experimental design and a one-group pretest-posttest approach. The sample consisted of 30 type II DM patients aged >45 years who were selected through purposive sampling technique. Dhikr therapy was performed for 15 minutes, twice a day, for three consecutive days. The recitations used were Astaghfirullah, Subhaanallah, Alhamdulillah, Allahu Akbar, and Laa ilaaha illallaah. Measurement of blood glucose levels was done before and after the intervention using a glucometer. Data were analyzed using the Wilcoxon test. The results showed a significant decrease in blood glucose levels after the implementation of dhikr therapy with a p-value = 0.000 ($p < 0.05$). In conclusion, dhikr therapy is proven to be effective in reducing blood glucose levels in type II DM patients. It is suggested that future researchers include additional variables, such as stress levels, quality of life, or lifestyle factors, to evaluate the relationship between dhikr therapy and these variables.

Keywords: *Blood Glucose Levels; Dhikr Therapy; Type II Diabetes Mellitus*

The Effectiveness of Benson's Relaxation Method on Stress Level of Diabetic Mellitus Patients at Garuda Health Center, Pekanbaru

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Abstract

Stress is a factor that can worsen the health condition of patients with diabetes mellitus, so it is important to find effective interventions. Benson's relaxation method, which focuses on deep breathing and the repetition of soothing words or phrases, is expected to help patients in managing their stress. This study aims to evaluate the effectiveness of Benson's relaxation method in reducing stress levels in patients with diabetes mellitus at the Garuda Pekanbaru Health Center. This study used a pre-experimental design with pre-test and post-test to measure stress levels before and after the intervention. The research sample consisted of 30 diabetes mellitus patients who were selected by purposive sampling. The results of the study were carried out using the Depression Anxiety Stress Scales (DASS-42) questionnaire and the Wilcoxon test. The results showed that the Benson relaxation method was effective in reducing the stress level of diabetes mellitus patients. The mean stress score of patients decreased significantly from 25.83 to 17.13 after the intervention, with a change of 8.77 and a p -value = 0.000 < 0.05, which showed very significant results. Therefore, the study suggests routinely practicing Benson relaxation techniques to keep stress levels under control, which can help manage diabetes mellitus overall and help patients manage their emotional state, thus having a positive impact on blood sugar control and the patient's quality of life.

Keywords: *Benson Relaxation Method; Diabetes Mellitus; Stress Level*

The Effect of Alternate Nostril Breathing Exercise Technique on Blood Pressure in Hypertension Patients Inrejosari Community Health Center Work Area

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Abstract

Hypertension is a disease caused by an increase in systolic blood pressure of 140 mmHg and diastolic blood pressure ≥ 90 mmHg, measured in two instances with a time difference of minutes in resting conditions (Ministry of Health of the Republic of Indonesia, 2019). One of the non-pharmacological therapies that can be used to help lower and control blood pressure is Alternate Nostril Breathing Exercise, which is an exercise therapy that can affect blood pressure. When one nostril dominates, the contralateral hemisphere will be activated. The purpose of this study was to determine the effect of Alternate Nostril Breathing Exercise on hypertension sufferers at the Rejosari Health Center. This research method is quantitative pre-experiment using a one-group pretest-posttest design with a statistical *t*-test (related) to compare blood pressure before and after being given the Alternate Nostril Breathing Exercise. The sample in this study used purposive sampling with 30 respondents. Since this study uses a ratio scale, the statistical test chosen is the related *t*-test. The study was conducted using observation sheets, and data were collected through pre-test blood pressure measurements before the ANBE intervention. The results of this study showed a p -value = 0.000 < 0.05 , so it can be concluded that H_a is accepted. Suggestions from this study are expected to provide information related to Alternate Nostril Breathing Exercise, which can be a non-pharmacological therapy for hypertension. The Rejosari Health Center community, who have been exposed to Alternate Nostril Breathing Exercise, can disseminate that this exercise can be a non-pharmacological treatment therapy for hypertension.

Keywords: *Alternate Nostril Breathing Exercise; Hypertension*

Analysis of Nurses' Mental Workload Using the NASA-TLX Method at PMC Hospitals

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Abstract

Background: Mental workload is the difference between mental work demands and the mental abilities possessed by the workers concerned. The workload arising from mental activities in the work environment is caused by the need to remain in a state of high alertness for a long time. **Objective:** To determine the mental workload of nurses at PMC Hospital. **Methods:** The design of this study is a quantitative descriptive study with a cross-sectional approach. **Characteristics:** The study showed that the majority of respondents were women (79.5%), aged 21-30 years (69.2%), aged 31-40 years (30.8%), and had a last education of D3 (30.8%), S1 (46.2%), and Profession (23.1%). The criteria for the mental workload of nurses in the PMC were explained as follows: very low category with a value of 0-20 (0%), low category with a value of 21-40 (71.8%), medium category with a value of 41-60 (28.2%), high category with a value of 61-80 (0%), and very high category with a value of 80-100 (0%). Data measurement was conducted using the NASA-TLX method questionnaire. **Results:** The mental workload of nurses in the PMC was in the medium category (28.2%) and in the low category (71.8%). Based on the research conducted, it can be concluded that the high measurement results for mental workload were 71.8%, which is included in the low category, the lowest category in the NASA-TLX indicator. Meanwhile, the medium category accounted for 28.2% in the NASA-TLX indicator. **Conclusion:** The majority of nurses at PMC Hospital experienced a low mental workload (71.8%), with a smaller proportion (28.2%) reporting a medium workload, as measured by the NASA-TLX method.

Keywords: Mental Workload of Nurses, NASA-TLX Method

The Relationship between the Role of Family Support and Self-Efficacy of Pulmonary TB Patients Undergoing Treatment at Uptd Sidomulyo

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Abstract

Pulmonary TB is an infectious disease that remains a public health problem. This study aims to analyze the relationship between the role of family support and self-efficacy of pulmonary TB patients undergoing treatment. The sample in this study consisted of 147 respondents, with the sample criteria being pulmonary TB patients undergoing treatment, patients without complications, and those with a medically confirmed diagnosis of pulmonary TB based on the TB category. The sampling technique used in this study was probability sampling with a purposive sampling method. The study was conducted using an observation sheet, and data was collected by administering a questionnaire. The data analysis technique used in this study was a statistical test, which yielded systolic p -value (0.00) and diastolic p -value (0.00) < (0.05). It can be concluded that there is a relationship between the role of family support and self-efficacy of pulmonary TB patients undergoing treatment. Suggestions from this study are that it can provide information related to family support and self-efficacy in pulmonary TB patients undergoing treatment. It is recommended that the Sidomulyo Health Center continue the pulmonary TB program to increase awareness of TB in the community.

Keywords: *Family Support; Pulmonary TB; Self Efficacy*

Factors that Influence Mother in giving Complementary Food for Breast Milk in Infants Aged 6 – 12 Months

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Abstract

Complementary food for breast milk are given to babies who are 6 months old, because there is an increase in the baby's nutritional needs that cannot be met by exclusive breastfeeding, which is ultimately beneficial for supporting the baby's growth and development. Mothers as the primary caregivers for their babies are responsible for this. During the periode of complementary feeding, mothers may influenced by other factors that can support or hinder this process. Objective: to determine the factors that influence mothers in providing complementary food for breast milk for babies aged 6 – 12 months. Methodology: this is a descriptive correlation study with cross – sectional approach. The sample was mothers who have baby aged 6 – 12 moths in the working area of Rumbai Pesisir area, Pekanbaru. The sample taken was 55 respondents, using purposive sampling technique and considering inclusion criteria. The measuring instrument used was a questionnaire to determine the characteristics of respondents and the provision of the complementary food which has been carried out by mothers for their babies. The data analysis used is the chi square test. Analisa data yang digunakan adalah uji chi square. Results: the study found that the age of respondents was 26 – 35 years namely 37 people (67,3%), 40 mothers (72,7%) had a high school education, respondents were housewives as many as 39 (70,9%) and the income of most families, namely 30 respondents was in the category below the Riau Province Regional Minimum Wage. Respondents in providing complementary food to their babies were many who not appropriate, namely 30 mothers (54,5%). The study found that in serving complementary food, mother was not influenced by age (p value 0,778), education (p value 0,160), occupation (p value 0,075 and family income (p value 0,790). Conclusion: Mother, many are not yet appropriate in providing complementary foods for their babies. In this study, this was not influences by factors such as age, education, accupation and family income of the respondednts. The study suggests to health workers, especially nurses in health centers can provide health education on providing complementary foods for community, especially mothers who have babies aged 6 – 12 months.

Keywords: Baby; Complementary Food; Factors; Mother

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Abstract

Background: Obesity is a condition of excess fat accumulation caused by a long-term imbalance between energy intake and energy expenditure. The imbalance disrupts the lipid profile in the blood, namely, low-density lipoprotein (LDL), very low-density lipoprotein (VLDL) levels, and triglycerides increase. In contrast, High-Density Lipoprotein (HDL) levels decrease. The accumulation of excess fat in body tissues can cause health problems related to obesity, including cardiovascular disorders such as high blood pressure, stroke, and coronary heart disease. dadiah, a traditional fermented milk product that contains probiotics, produces Short-Chain Fatty Acids (SCFA) and Bile Salt Hydrolase (BSH) enzymes, which help reduce fat accumulation and lower cholesterol. Zinc, an essential mineral with antioxidant properties, also supports the improvement of lipid profiles. **Objective:** To know the effectiveness of dadiah and zinc supplements against cholesterol levels. **Methods:** This study used an experimental design with 30 Sprague Dawley obese Rats, which were divided into five groups: negative control, positive control (obesity without intervention), dadiah treatment, zinc supplement treatment, and dadiah-zinc combination. **Results:** There was a significant reduction in cholesterol levels in the treatment groups given dadiah (172.19 ± 3.95 mg/dL), zinc supplements (180.28 ± 14.71 mg/dL), and the dadiah-zinc combination (167.29 ± 13.22 mg/dL) compared to the positive control group (191.19 ± 32.22 mg/dL) with $p < 0.05$. The dadiah-zinc combination showed the most significant cholesterol reduction. **Conclusion:** Dadiah and zinc supplements have the potential as an additional therapy to overcome hyperlipidemia in obese patients to prevent metabolic syndrome, with the combination of dadiah-zinc supplements showing the most effective results.

Keywords: Cholesterol Levels; Dadah; Zinc Supplement; Lactic Acid Bacteria; Obesity

Self Management Education Model Based on Family Support on Quality of Life in Patients with Diabetes Mellitus

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Abstract

Introduction: Diabetes Mellitus is a metabolic disorder characterized by chronic increase in blood glucose. The impact of Diabetes Mellitus varies widely and affects a person's health status. This literature review aims to identify a self-management model based on family support for quality of life in Diabetes Mellitus patients. **Methods:** Preferred Reporting Items for Systematic reviews and Meta Analyzes (PRISMA) scheme. Article searches using published databases, namely Pubmed, Science Direct, and DOAJ published in the last 5 years. The search strategy uses English with the keywords "Self Management Education and Family Support and Quality of Life and Diabetes Mellitus". **Results:** The total number of articles obtained was 371 articles and 10 research articles that met the criteria were taken for analysis. Self-management education includes several things, including eating, physical activity, monitoring, administering medication, problem solving, healthy coping and risk reduction. **Conclusion:** Self-management education based on family support is very important to be implemented to improve the quality of life in diabetes mellitus patients.

Keywords: *Diabetes Mellitus; Family Support; Quality of Life; Self Management; Education*

Heavy Metal Contamination of Saptamukhi River: Threats to Biodiversity and Estuarine Ecosystem

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Abstract

A part of Sunderbans (UNESCO world Heritage Centre) is situated in coastal districts of West Bengal, India. Sunderbans mangrove forest is one of the largest forests of its kind in the world with unique estuarine ecosystem and rich blend of biodiversity. It has variety of mangrove flora, magnificent Royal Bengal Tigers, crocodiles, crabs, saline or brackish water resources, diverse halophilic aquatic and terrestrial animals. Sunderbans faces environmental challenges like pollution, freshwater scarcity and coastal erosion. The Saptamukhi River, a major tidal estuarine river in the extreme western part of Sunderbans delta, is polluted by cargo ships carrying fly ash from different thermal power station, West Bengal; human activities and waste water from shrimp farming etc. Saptamukhi River is connected with Muri Ganga River and Deogra Khal. Pollution disrupts the Saptamukhi River estuarine ecosystems, affecting both plants and animals' health and deteriorating river water quality. Polluting agent like heavy metal lead (Pb) is toxic and can accumulate in fish tissue or other aquatic organisms and can biomagnify. At three locations along Saptamukhi river was selected to study lead contaminations with seasonal and spatial variations. Physio-chemical parameters like temperature, salinity, pH, dissolved oxygen, conductivity, biological oxygen demand (BOD), chemical oxygen demand (COD), turbidity were measured to identify the extent of river pollution. Harmful effects on fishes were also noted. The results are important for creating plans to protect this important estuarine ecosystem. Keeping track of lead pollutants can help with managing and saving the Sundarbans, its biodiversity, and the people who depend on its resources for their livelihoods.

Keywords: Heavy Metal; Lead; Mangrove; Pollution; Sunderbans

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Abstract

Polyscias scutellaria, commonly known as mangkokan or shield aralia, has long been used in traditional Southeast Asian medicine and is gaining attention for its diverse pharmacological properties. This plant exhibits significant antibacterial, antifungal, anti-inflammatory, antioxidant, galactopoietic, antidiabetic, and anticancer activities, making it a promising candidate for therapeutic and cosmetic applications. Ethanol and ethyl acetate extracts of *Polyscias scutellaria* show notable antibacterial effects against various pathogens, including *Staphylococcus aureus*, *Escherichia coli*, and *Propionibacterium acnes*. The plant's bioactive compounds, such as flavonoids, tannins, and saponins, contribute to these effects, indicating its potential as a natural antimicrobial agent. Additionally, studies have revealed its antifungal activity against *Candida albicans*, with minimum inhibitory concentrations above 6400 µg/mL, suggesting its therapeutic potential in treating fungal infections. The galactopoietic properties of *Polyscias scutellaria* are particularly noteworthy in maternal health, with research demonstrating increased prolactin and oxytocin levels in lactating rats, as well as improved mammary gland structure and enhanced offspring survival. These findings support the plant's potential as a natural supplement for promoting lactation. Moreover, its anti-inflammatory and antioxidant effects have been shown to mitigate oxidative stress and regulate pro-inflammatory cytokines, reinforcing its role in supporting immune health and managing inflammation-related conditions. In diabetic models, *Polyscias scutellaria* has demonstrated a capacity to significantly lower blood glucose levels in alloxan-induced rats, with higher doses showing the most pronounced effects, although not surpassing the efficacy of standard metformin treatment. The plant also promotes hair growth, with topical application of its extract resulting in hair length and weight improvements comparable to those of commercial hair growth treatments such as minoxidil. Virtual screening has also identified *Polyscias scutellaria* bioactive compounds as potential inhibitors of Bcl-2, a protein involved in cervical cancer, suggesting its anticancer properties. These findings underscore the diverse pharmacological activities of *Polyscias scutellaria*, positioning it as a valuable resource for developing natural therapeutic and cosmetic products. However, further clinical studies are needed to optimize its use, ensure safety, and evaluate its efficacy in human applications.

Keywords: *Polyscias Scutellaria; Pharmacological Properties; Natural Products*

Integrated Watershed Management for Sustainability in Semi- Arid Hard Rock Terrain at Bandu Sub-Watershed, West Bengal, India

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Abstract

The people of Purulia, West Bengal, mostly get caught in daily hardships due to degradation of forest, land, water and forest resources. In fact, it creates a perpetual cycle, where each problem keeps aggravating the other. The ongoing cycle of problems adversely affects livelihood, as 75% of farmland depends on rain and hence has very low productivity and little area for irrigation. Groundwater extraction is slowly drying up due to deforestation for agricultural expansion. This calls for Integrated Watershed Management, Bandu -sub watershed, located in the Purulia district which lies in India; semi-arid hard rock land territory in connection to Sustainable Development Goals, 2030. Characteristics of soil, water and forest dynamics were integrated through field and secondary data. Micro-watersheds were prioritized based on hydrological analysis, which includes linear, areal and relief parameters. Using Multi-Criteria Decision Making (MCDM) techniques. A vulnerability assessment of aquifers was done using geological, morphological, and lithological data with machine learning (ML) methods. Groundwater was also checked for quality in relation to irrigation and drinking purposes and drought vulnerability was spatially mapped. Land degradation was assessed using the MCDM method and soil erosion rates were estimated using the RUSLE model. Changes in Land Use Land Cover (LULC) were predicted using the Markov Chain model; disturbance areas concerning forests were identified through RS and GIS. Field validation of the models was carried out and socio-economic vulnerability arising from water scarcity was also assessed. The findings highlight the need for urgent monitoring and management of the limited natural resources of this semi-arid area, validating its incorporation into sustainable development.

Keywords: MCDM, ML, RUSLE, Markov Chain, SDG

Optimization of Maximizing TPC Content in Spray-Dried Dandelion Extract Powder Using Decoction and UAE Extraction Techniques

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Abstract

Dandelion (*Taraxacum officinale*) leaves are well known for their high content of phenolic compounds, which provide antioxidant, anti-inflammatory, and hepatoprotective benefits. This study investigated the effectiveness of traditional decoction and ultrasonic-assisted extraction (UAE) methods for maximizing the total phenolic content (TPC) in dandelion leaf extract powders, followed by spray drying. The UAE technique uses ultrasonic waves to enhance cell wall disruption and release phenolic compounds, while decoction relies on boiling water to extract bioactive compounds. The extracts were spray-dried under optimized conditions to obtain stable powders, and the TPC was determined using the Folin-Ciocalteu method. The UAE showed a significantly higher extract powder yield percentage than decoction, yielding up to $36.51 \pm 0.36\%$ extract after 15 minutes, compared to $32.03 \pm 0.28\%$ for decoction extract after 45 minutes. Spray drying at 140°C resulted in a higher TPC content and achieved the best outcome for the extracted powder. In comparison, increasing the temperature to 160°C caused a decline in TPC content for both extraction methods. The highest yield percentage of the dandelion leaf extract was achieved at 140°C , and this condition was selected to determine the TPC content. The UAE showed significantly higher TPC in all extraction time intervals (15 min, 30 min, 45 min), ranging from 42.11 ± 0.51 mg GAE/g to 44.01 ± 0.62 mg GAE/g. In contrast, traditional decoction extraction is simple and cost-effective, involving prolonged boiling, which degrades heat-sensitive phenolics and resulted in significantly lower TPC content (20.32 ± 0.31 mg GAE/g to 25.11 ± 0.18 mg GAE/g across all extraction times). This research indicates that UAE is more effective than traditional decoction for commercially producing dandelion leaf extract powder to maximize total phenolic content. Further research could explore optimizing UAE parameters and investigating the impact of stability conditions on the phenolic content and antioxidant activity of the dandelion leaf extract powder.

Keywords: Anti-oxidant Activity; Dandelion; Extraction; Spray-dried Extract; Total Phenolic Content; UAE

Protection Work of Lower Rampur Khal and Assessment of Air Pollution

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Abstract

Rampur Khal, located in the Howrah district of West Bengal, is prone to flooding, affecting the inhabitants of the adjoining villages. Realizing the gravity of the situation, it was decided to construct an embankment to minimize flooding and also improve the quality of life for both people and the environment. The majority of the population living under adverse environmental conditions will benefit from improvements with better infrastructure and utility services. For successful completion of the project, periodic monitoring of air quality with sampling and laboratory analyses was done to assess the ambient air quality in order to ensure air pollution is in a minimized state during the course of the project. There has been an increase in dust levels all along the haul roads and dumping areas. The emissions from the machinery are the source of ambient air pollution during the actual work. Continuous use of different machinery like boleros, excavators, trucks, etc., gave rise to the ambient levels. Certain mitigation and control measures were implemented to combat the problem.

Keywords: Air Pollution; Assessment; Flood; Rampur Khal

Assessment of Antifungal Activity of Crude Leaf Extracts in Different Solvents of *Lantana camara* L. Against Some Selected Plant Pathogens

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Abstract

The present study analysed the antifungal activity of different solvent extracts of the leaf of *Lantana camara* L. against *Rhizoctonia solani* (MTCC No. 4633), *Alternaria solani* (MTCC No. 2101), *Rhizopus oryzae* (MTCC No. 262) and *Botrytis cinerea* (MTCC No. 359). The inhibition zone of fungal growth in methanolic, chloroform and 50% aqueous ethanolic leaf extracts was measured. The result showed that the inhibitory effect against selected fungal species growth in different solvent extracts of leaves was significant. It was observed that methanolic leaf extract showed more inhibitory effect against *Botrytis cinerea* (MTCC No. 359) and *Rhizopus oryzae* (MTCC No. 262) followed by 50% aqueous ethanolic leaf extract, which showed positive response against *Rhizopus oryzae* (MTCC No. 262), *Botrytis cinerea* (MTCC No. 359) and *Alternaria solani* (MTCC No. 2101). Leaf extract from chloroform also showed an inhibitory effect against *Botrytis cinerea* (MTCC No. 359), *Alternaria solani* (MTCC No. 2101) and *Rhizopus oryzae* (MTCC No. 262). The result showed that all three extracts have the least effect against *Rhizoctonia solani* (MTCC No. 4633).

Keywords: Antifungal; *Botrytis cinerea*; Extracts; Inhibitory Zone; *Lantana camara* L.; *Rhizopus Oryzae*

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Abstract

The climate system of the Earth is non-linear and characterized by oscillations and fluctuations. It imposes extreme weather events, forced migrations, floods and droughts, famine, water scarcity, food insecurity, and lifestyle adjustments posing physical and mental health risks. Individuals develop connectedness to their social, regional, and environmental milieu, while climate impacts alienate and dislocate them. The concept of "Solastalgia" describes this disruptive psychological state and mental instability of people exposed to environmental degradation. The individuals and members of the affected groups face the change in physical and climatic conditions and the intrinsic ecological imbalances. Climate change-induced extreme events cascade submergence of land, cyclones, droughts, chemical pollution, and pandemic episodes of diseases, compelling migration of denizens. Migrant populations simultaneously face acculturation stress, exposure to different climate parameters, acclimatization problems to the new climate of the place, and impact physical and mental stress. Together, they act in the genesis of physical and psychological distress. Clinically, migrants suffer from psychological disorders like schizophrenia more than the host population. Mental health is linked to physical health and deteriorating health-conditions lead to poor quality of life and psychological distress. An environment is considered thermo-neutral so long as the body does not release energy to maintain its core temperature. The hypothalamus in the brain, the control point, works as a thermostat to regulate the body's core temperature. The human body is an 'endothermic homeotherm', that generates its own body heat and regulates the body temperature commensurate with the environmental conditions. Body temperature is influenced by its internal mechanisms, called homeostasis. Behavioral adaptations like using shelter, clothes, and heating and cooling systems try to maintain a central or core temperature around 37°C and ensure stable physiological functions of the human body. It fluctuates daily (circadian) and with aging. The hypothalamus is the coordinating center for body temperature regulation. A stable core temperature is achieved through a homeostatic thermoregulatory mechanism linking cold and warm receptors in the skin and brain to produce heat from muscle and other organs. When climate's physical impacts accelerate, functions of the brain are impaired and compromised, and people grapple with increasingly unstable and warming weather; psychosomatic disorders lead to anxiety syndrome, depression, sleep disturbances, aggressive behavior, alcoholism, and suicidal tendencies, even causing traumatic death. Studies suggest heat-related mortality for elderly persons has increased by about 85% in the last 20 years from hypothermia, thermal edema, and heat strokes. A study published by WHO indicates approximately 489,000 heat-related deaths occurred each year between 2000 and 2019.

Keywords: *Acculturation Stress; Psychosomatic Disorders; Solastalgia*

Ecology, Climate Change and Uses of Water: Issues and Challenges with Reference to India

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Abstract

The ecological crisis is the most pressing problem confronting humanity in the present century. The problem of nature is really a problem of resources/capital, as natural cycles are turned into broken linear processes geared to private accumulation. The question is raised that Classical Sociologists have no thinking in terms of ecology, climate, etc. What we see at present is that the environment has attracted the attention of decision-makers, scientists, and general people in many parts of the globe. They are becoming increasingly conscious of issues such as famines, droughts, floods, scarcity of fuel, firewood, and fodder, pollution of air and water, problems of hazardous chemicals and radiations, depletions of natural resources, extinction of wildlife, and damages to flora and fauna. People are becoming more conscious of protecting the natural environmental resources of air, water, soil and plant life that constitute the natural capital on which man depends. Unless environmental issues are solved or taken care of, the coming generations may find Earth not worth living on. It may be mentioned that sensible practice and training are needed in reducing the damage done to the groundwater reserves. Understanding the complexity and importance of environmental issues requires a rigorous environmental management structure. A structure that should be guided by values such as transparency, accountability, public participation in decision-making, and freedom of association.

Keywords: *Ecological Crisis; Environmental Management; Natural Resources; Sustainability*

Scientific Observation on Mangrove Degeneration: Case Specific Exposure from Indian Part of Sundarbans

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Abstract

The vibrant mangrove ecosystem, consisting of plants and shrubs growing along tropical and subtropical coastlines, is one of the richest and most productive ecosystems at the interface of marine and terrestrial environments. It provides essential environmental and economic services. However, in the Anthropocene, the mangrove ecosystem is continuously degrading due to numerous natural and anthropogenic factors, both predictable and unpredictable. One major driver is global climate change, which exacerbates both natural and human-induced factors. The impacts of climate change include Sea Level Rise (SLR) and Saline Water Intrusion (SWI), unfavorable soil and water salinity, embankment failure during the monsoon, lack of evapotranspiration relative to precipitation, and reduced freshwater and sediment supply to the mangrove environment. Other contributing factors include agricultural expansion, coastal aquaculture (particularly tiger shrimp production), rapid population growth, and continuous urbanization along the coastal belt of the highly eco-sensitive Sundarbans. Additionally, earthen dam construction, shoreline retreat, coastal bank erosion, and the disappearance of certain Bay-facing islands also play significant roles. The primary objective of this study is to identify the key inductive factors contributing to mangrove loss and degradation in the Indian part of the Sundarbans. The secondary objective is to assess the feasibility and applicability of both natural and anthropogenic regeneration practices for mangroves in the same region. These objectives are explored through a combination of field-based monitoring at selected islands, along with GIS and Remote Sensing applications. The findings indicate that coastal bank erosion, reduced availability of strong muddy substrates, shoreline retreat, the gradual disappearance of Bay-facing islands, and regional mean sea level rise are the primary factors responsible for mangrove loss, particularly on Bay-facing islands such as Dhanchi Island, Bangaduni Island, Jambu Island, Sikarpur Island, and Mousuni Island, as well as other parts of the Indian Sundarbans.

Keywords: Coastal Bank Erosion; Indian Sundarbans; Loss of Mangroves; Sea Level Fluctuations; Shoreline Retreat

Designing Sustainable Urban Landscapes: Strategies for Integrating Green Spaces into Urban Environments

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Abstract

One consequence of urbanisation is the "urban diseases" resulting from the ever-increasing city density and size. The natural environment and public service quality are enhanced by urban green space. Building a lot of green space and ensuring it gets the resources it needs for ecological restoration and public services is challenging because of the growing gap between urban demand and available resources. The growing disparity between the development's lack of green space and the people's desire for healthy living is becoming more apparent. Consequently, this paper presents a systematic review and comprehensive analysis method to investigate effective strategies for utilising underground space in urban green spaces, with the goals of improving the development of green spaces sustainably and efficiently, resolving the urban crisis, and promoting the health function of green spaces. This study lays forth a three-pronged strategy for making the most of subterranean and urban green spaces: 1) a well-organised and sensible strategy for development; 2) many and intricate uses; and 3) a constructed environment that is environmentally harmonious. The study's results show how to support urban growth in a fast-urbanizing China while simultaneously protecting and making use of surface and subsurface landscapes and green areas.

Keywords: *Green Spaces; Multi-Functional Utilisation; Sustainable Urban Landscapes; Urban Environments*

Fire Hazard Analysis & Subsequent Environmental Impact in Kolkata

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Abstract

Fire hazards continue to pose significant risks globally, causing extensive damage to life and property. Major incidents, such as the Deepwater Horizon fire (2010, USA), the Delhi Anaj Mandi fire (2019, India), and the Dhaka Bailey Road fire (2024, Bangladesh), underline the urgent need for effective fire risk management. In Kolkata, a metropolitan city with over 15 million residents across 144 wards, the combination of rapid population growth and unplanned urbanisation has exacerbated fire hazard vulnerabilities. Historical incidents, including the Stephen Court fire (2010), AMRI Hospital fire (2011), Bagree Market fire (2018), Burrabazar fire (2023) and New Alipore fire (2024), underscore the need for robust fire risk assessments. This study aims to address this research gap by conducting ward-wise fire hazard vulnerability assessments in Kolkata. Employing the VIKOR Multi-Criteria Decision-Making (MCDM) model, combined with population density mapping, road network analysis, and proximity to essential services such as fire stations and hospitals, the study provides a comprehensive evaluation of fire risk factors. The Nearest Neighbour Search Algorithm is utilized to identify alternative routes for emergency services, ensuring efficient response times. The findings reveal that municipal wards with high population density, inadequate infrastructure, and limited accessibility to fire services exhibit the highest vulnerability. The study emphasizes the importance of incorporating data-driven methodologies into urban planning and disaster management to mitigate fire risks effectively. The outcome of this research is a detailed vulnerability map, which can serve as a vital tool for city planners and policymakers to prioritize resource allocation, enhance fire response strategies, and reduce future hazards. This study contributes to bridging the research gap in fire hazard assessments and offers practical insights into risk reduction strategies for metropolitan cities. Fire hazards have a significant impact on the environment that needs to be mitigated

Keywords: Fire Hazards; Fire Risk Management; Unplanned Urbanisation; Vulnerability Mapping

Packaging Human Expression: Visual Transmission, Art, and Design Interpretation

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_____*Abstract*_____

The topic of discussion in this article is the intricate relationship that exists between visual communication, human expression, and the reception of aesthetic works for aesthetic purposes. The purpose of this study is to investigate the methods and approaches that artists and designers use in order to convey their ideas via visual media. More specifically, the authors are interested in the manner in which human feelings and concepts are packaged and presented. The purpose of the research is to illustrate how cultural contexts and technological advancements have an effect on visual communication. To do this, the study will encompass a comprehensive investigation of examples from both the past and the present. A further step is taken in this article, which investigates how the audience perceives and engages with visual art and design. As a means of shedding light on the enormous significance and multidimensional nature of visual expression in human civilization, the purpose of this study is to investigate the complex interaction that exists between artists, media, and spectators.

Keywords: *Art Interpretation; Cultural Contexts; Design Methodologies; Visual Communication*

A Study to Analysis China's Tourism Industry and Its Cultural Effects on Local Communities

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Abstract

Considering the potential social, cultural, economic, & ecological impacts of constructing a tourist attraction, some residents may be opposed to the notion. The local community's openness to visitors might be affected in both good and bad ways. The impact of tourism on host communities throughout the world has been studied by several researchers in the area, but no one has yet examined contemporary China. While studies on the topic of minority groups in China have been conducted, they have mostly focused on remote regions and have only included a small percentage of the total population. The Chinese media sometimes boasts about China's increasing tourism, but they only provide the "good" aspects, all because of the government's strict supervision. It is the goal of this study to provide some perspectives on the good and bad effects that tourism has had on Chinese society. By doing so, this website will assist readers who are interested in the evolution and development of contemporary China. The composition consists of three main sections. The first section of the study gives a brief outline of China's tourism strategy starting in 1978, which is necessary for comprehending the expansion of the country's tourist sector over the last two decades. The studies second half explores ethnic tourism and other types of Chinese tourism in an attempt to provide insight on how to maximise visitor experiences while minimising expenditures. This study uses the example of cross-border tourist operations in Shenzhen to demonstrate the social/cultural, economic, & environmental impacts of tourism on a host community. In the final part, researchers in the China region who are investigating interactions between travellers and their hosts may find a conceptual model that applies to tourist sites. These places are important for the local community's survival and growth because of the social & cultural, economic, & environmental sustainability.

Keywords: *Chinese Society; Cultural Effects; Local Communities; Tourism Industry*

Analyzing The Impact of National Varieties on The Business Approaches of Global Corporations in China

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Abstract

Since the late 1970s, when China opened its economy and invited foreign direct investment, and when global companies such as Volkswagen, Coca-Cola, and 3M started investigating the market, there has been a significant shift in the way that multinational firms are seen in China. When more multinational corporations (MNCs) like Motorola, Philips, and NEC arrived in the 1980s, they were welcomed with open arms. The corporate tax rates that they paid were half of what the local firms were required to pay, and they did not have to pay any customs on the capital items that they imported. In general, they were held in high regard by both the government and the general public. As China and its people continued to gain a deeper knowledge of multinational corporations (MNCs) well into the 1990s, the foreign enterprises continued to be the objects of wonder and adoration. At that time, Chinese consumers demonstrated a predilection for the goods and services offered by multinational corporations (MNCs) that was practically unwavering. MNC initiatives are now subjected to a far higher level of scrutiny to see whether or not they align with national interests. In addition, multinational corporations are increasingly receiving local treatment. In support of this assertion is the impending equalisation of the corporation tax rates between domestic and international businesses, which is scheduled to take effect beginning on January 1, 2008. It is increasingly the case that multinational corporations are subjected to the same standards, if not harsher standards, than their local counterparts in areas such as employment standards and environmental standards. They are also discovering that those standards are being implemented in a somewhat more stringent manner.

Keywords: *Economy; Employment Standard; International Businesses; Multinational Corporations*

An Investigation into Locating and Overcoming the Obstacles That Prevent Entrepreneurs from Making Use of Management Accounting Information Is The Subject of This Research

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Abstract

Change and growth in the global economy are driven by the efforts of small businesses. Economic development is dependent on the success of small businesses. Previous studies have shown that financial strategy and execution are essential for small businesses. Little is known, according to the academic literature, regarding how small businesses utilise management accounting (MA) and management information systems (MIS), despite their significance to the economy. As the lone decision-maker at a startup, the entrepreneur must implement MAI from their own unique perspective. This dissertation examines the management practices of company owners who make use of MAI. The first section addresses the advantages, disadvantages, and concerns of MA for smaller businesses. Second, researchers were analysing MA system adoption based on the stage of the firm's life cycle. Thirdly, the literature review addresses models, gaps, and execution since small company owners subcontract accounting service quality. This research demonstrates that MAI is highly valued by business owners for its management capabilities. The viewpoints of accountants and business owners impact the quality of MAI services. The dissertation adds to MA literature in three separate ways. A fresh perspective on MAI adoption among startups is provided via a creative aggregation of owner perspectives. The accountant and business owner adopting MA services have a deeper appreciation for the special service connection they share thanks to the use of the service quality gap hypothesis. Thirdly, the relevance and underuse of MAI in small business management is shown by the viewpoints of entrepreneurs and the gaps in service quality. These results may have an impact on management accounting tools for making decisions for small businesses and entrepreneurship education.

Keywords: Accounting Information; Business Management; Economic Development; Entrepreneurship Education; Management Accounting; Outsource Accounting

A Study to Analyse the Ramifications of Computing for Culture and Industry and the Influence of Computing on Classroom Instruction

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Abstract

This research-based dissertation explores the extensive impact of computing on culture, industry, and education, with a particular focus on the integration of Information and Communication Technology (ICT) in classroom instruction. Despite significant investments and policy initiatives aimed at enhancing ICT use in schools, effective integration remains limited. This study investigates the reasons behind this gap and proposes a targeted professional development program to address it. The research highlights the critical role of teachers in successful ICT integration. Often, the lack of effective ICT use in classrooms is attributed to inadequate teacher training and support. To bridge this gap, the proposed professional development program is designed to equip educators with the necessary skills and confidence to incorporate ICT into their pedagogical practices, fostering a constructivist approach to teaching and learning. The program consists of two phases. The first phase involves assessing the current school culture regarding ICT, training teacher-mentors, and collaboratively developing a school-wide vision for ICT integration. The second phase focuses on intensive training sessions aimed at enhancing computer proficiency, applying constructivist teaching methods, and fulfilling mentoring responsibilities. Teacher-mentors will also create ICT-integrated lesson plans and establish support systems for resource sharing and strategy dissemination. Using qualitative data collection methods such as interviews and surveys, the study examines the effectiveness of the professional development program and its impact on teachers' ICT integration. The findings demonstrate the program's potential to improve teachers' ICT skills, promote innovative teaching practices, and enhance student engagement and learning outcomes. This research contributes to the broader discourse on ICT in education by offering practical insights and strategies for effective integration. It underscores the importance of tailored professional development and collaborative efforts among educators, administrators, and policymakers to create a supportive environment for ICT use in education.

Keywords: *Classroom Instructions; Computing Culture; Industry; Influence of Computing; Technology*

The Use of Differential Reduction of Generalised Hypergeometric Functions to Feynman Diagrams: One-Variable Case

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_____Abstract_____

This article investigates the differential-reduction process for evaluating Feynman diagrams using generalized hypergeometric functions, focusing on the one-variable case. The researcher explores how integrals derived from Feynman diagrams can be simplified through differential reduction techniques, transforming the reducibility requirements of multiloop Feynman integrals into conditions related to hypergeometric functions. This study compares the study's findings with well-established methods, highlighting the connections between the number of master integrals obtained via differential reduction and those derived from integration by parts. The study's results demonstrate that the criteria for reducibility using hypergeometric functions can effectively rephrase and simplify the analysis of multiloop Feynman integrals. Additionally, the researcher discusses the computational advantages of this method, emphasizing its potential to enhance the precision and efficiency of radiative correction calculations in high-energy physics. By examining the interplay between Feynman diagrams, differential reduction, and hypergeometric functions, this work contributes to a deeper understanding of the intricate theoretical frameworks that govern particle behavior in quantum field theory. The study's findings underscore the importance of algebraic simplification in addressing complex integrals, ultimately aiding physicists in their quest to unravel the fundamental interactions within the quantum realm. This research provides valuable insights into the practical application of differential reduction techniques, paving the way for more efficient and accurate computations in high-energy physics.

Keywords: *Differential Reduction; Hypergeometric Functions; Feynman Diagrams; Multiloop Integrals; Quantum Field Theory*

A Study to Analyse Modelling Large-Scale Cross Effect in Purchase Incidence: Comparing Artificial Neural Networking Cadence: Comparing Artificial Neural Network Techniques and Multivariate Probit Modelling

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Abstract

In this study, large-scale cross effects on sales incidence are investigated by comparing and contrasting the effectiveness of Artificial Neural Network (ANN) approaches with Multivariate Probit (MVP) modelling. With the intention of comparing and contrasting the two state-of-the-art techniques in terms of their capacity to comprehend intricate relationships and anticipate the behaviours of consumers in enormous datasets, the goal of this research is to compare and contrast the two methodologies. Through the application of ANN and MVP techniques to purchase incidence data, the purpose of this study is to assess whether or not the methodology provides more accurate and practical insights into consumer behaviour. If you are doing research on consumers or marketing, this comparative study may assist you in selecting the appropriate modelling techniques by concentrating on the accuracy of the models, the efficiency of the computation, and the interpretability of the results.

Keywords: Artificial Neural Networks; Data Analysis; Multivariate Probit Modeling; Purchase Incidence

A Research Investigation Aimed at Comprehending the Influence of Visual Context on Customers' First Perception of An Organization's Visual Identity Systems

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_____Abstract_____

The objective of this research is to investigate the visual environment and the influence that it has on the first perceptions that customers have of the visual identity systems being used by a corporation. This study is to investigate the ways in which logos, color schemes, and design consistency influence the impressions of customers in order to get a deeper comprehension of the ways in which these elements contribute to the visual identity of an organisation and the efficiency with which it operates. The primary inquiry of this research is to determine how the perceptions and emotional responses of customers, which are influenced by a variety of visual settings, have an effect on the overall image of the brand. This study makes use of a combination of visual analysis and feedback from consumers in order to ensure that visual identity systems are optimised for increased brand perception and engagement capabilities.

Keywords: *Brand Perception; Customer Impressions; Visual Context; Visual Identity Systems*

A Study to Understand the Problems with Efficiency in the Stages of Animation Production

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Abstract

Due to the intricate nature of the animation business, all phases of production—from pre- to post-production—need to be carefully coordinated with one another. Inefficiencies within these phases are the focus of this research, which seeks to identify and analyse the relevant reasons. Interviews with experts in the field and analysis of real-world animation projects serve as quantitative and qualitative components of this study's research strategy, which aims to identify and understand the most prevalent obstacles to efficient workflows, including problems with resource management and technology. Better communication, more effective project management tools, and more efficient animation software are just a few of the areas that may need some work, according to the research. The research suggests ways to improve the production process by fixing these inefficiencies, which helps save time and money while making better animations. The findings of this study have important implications for the animation industry as a whole as well as for teachers and students interested in the complexities of animation creation.

Keywords: *Animation Production Efficiency; Animation Production; Animation; Project Management*

Healthy Interiors Environments with the Implementation of Sustainable Interior Design Practices

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Abstract

Customers are looking to integrate sustainability ideas into their interior design projects, driven by the growing awareness of the need for ecologically responsible construction and interior design in society. Reducing energy usage, pollution, and waste, as well as using building materials and practices with a minimal environmental effect, are all part of environmentally friendly interior design. Because they choose the materials and products to be used and how people may engage with their surroundings in an environmentally conscious manner, architects and interior designers play a crucial part in attaining sustainability in interior design. The study's overarching goal is to learn everything they can about the significance of sustainability in interior design and then investigate the several ways that sustainability may be incorporated into interior space planning. To reduce negative impacts on the environment, the study indicates that sustainable design is an essential component of interior architecture. At an alarming pace, the globe is experiencing detrimental changes to its ecosystem. The consuming habits of humans have contributed to environmental deterioration and, in turn, these changes. The construction sector is a major producer of waste and pollution, however, there are many other causes as well. Interior designers are part of an industry that has the potential to improve both the built and natural ecosystems by using sustainable practices. The goal of sustainable design is to reduce negative effects on the environment while simultaneously preserving resources for use by present and future generations via the use of materials, techniques, and procedures that are considerate of the Earth's life cycles.

Keywords: *Environment; Interior Design; Healthy Interior; Sustainability*

Sustainability and Aesthetics in Interior and Exterior Design: Strategies for Creating Ecofriendly and Visually Appealing Environments

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Abstract

The objective of this study is to examine the ways in which sustainability and aesthetics may be incorporated into both exterior and interior design. The strategies that are the focus of this study are those that generate environments that are both ecologically sustainable and aesthetically beautiful. Concerns about the environment are growing, and along with them comes the challenge for the design industry to create places that are visually appealing while also minimising the bad consequences that these surroundings have on the environment. This challenge arises from factors such as the amount of energy used, the materials used, and the nature of the design process itself. Important concepts such as biophilic design and cradle-to-cradle principles are discussed, in addition to sustainable materials and technology that is efficient in its use of energy. In addition to this, it examines the challenges that are associated with acquiring materials that are favorable to the environment as well as the perceived costs that are associated with sustainable design. The initiative examines successful case studies and emerging trends in order to offer designers practical guidelines for achieving a balance between aesthetics and sustainability. The findings make it abundantly evident that sustainability and aesthetics are not aims that are incompatible with one another; rather, they have the potential to inspire innovative approaches to design that may enhance the environment without compromising aesthetic appeal. The purpose of this study is to contribute to the ongoing discussion on sustainable design by concentrating on the future of interior and exterior design in a society that is growing more environmentally conscious.

Keywords: *Aesthetically Beautiful; Ecologically Sustainable; Generate Environments; Sustainability*

A Study to Analyse Settler Colonialism and the Environment in the New Deal's Public Artworks and Private Lands Wall Paintings Over the Great Plains

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Abstract

This study employs quantitative methods to examine the development and impact of New Deal sculptures alongside private land murals throughout the Great Plains portion of the country. This research examines the ways in which these artworks, representative of the New Deal period, mirror and interact with themes during settler colonialism, environmental transformation, and cultural narratives. Through the utilization of diverse methodologies encompassing spatial analysis, statistical scrutiny of historical documents, and substantive examination of representations of art, we seek to elucidate the intricate relationships among visual arts, settler accounts, and environmental changes during this pivotal era in Chinese history. This research delves into the historical backdrop of settler colonialism through the Great Plains, particularly during the period known as the New Deal era, with an emphasis on demographic transformations and land utilization trends. This study systematically classifies and scrutinizes artworks from the New Deal era, created by organizations such as the Public Works regarding Art Project (PWAP) along with the Works Progressive Administration (WPA). It delves into their portrayal of indigenous narratives, agrarian principles, and the conceptual dynamics between settlers and their surrounding environment. The research further evaluates the influence of these artistic expressions on local communities, scrutinizing their effects on identity, sense of belonging, and the ongoing effects of settler colonialism. The study further explores the environmental ramifications of these artistic expressions, scrutinizing motifs of nostalgia, exploitation, along with conservation. The research employs GIS and statistical methodologies to evaluate the relationships between the locations of artworks and environmental data, uncovering the concrete influence of art on land along with community changes. The results will enhance academic discourse in art history, studies of the environment, and colonial studies, promoting critical discussions on the intricate dynamics of representation along with reality within historical narratives about the terrain of the United States.

Keywords: Art History; Cultural Narratives; Environmental Studies; Great Plains; New Deal; Public Art; Settler Colonialism; Wall Paintings

A Study to Studying the Impact of Coaching on School Leaders' Leadership, Professional Development, and Sense of Agency in China

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Abstract

The lives of teachers who are also coaches in various sports are investigated. This research looks at how coaching affects school leaders' abilities to lead, learn, feel confident in their own abilities, and take charge of their own careers, both at home and abroad. Bandura's theory of autonomous functioning serves as the theoretical foundation for this study, which seeks to conduct a critical analysis of coaching experiences among school leaders and a subset of leaders in adult learning contexts. Twenty-one informal conversations and a twenty-item online survey make up the fieldwork. Coaching school leaders improves their awareness, knowledge, and talents in coaching and administration, as well as their levels of creativity, as shown by the outcomes. Leaders also develop the skills of active listening, introspective question-asking, empathic trust-building, and the provision of supportive conditions in which their subordinates may thrive. Coaching seems to aid in the development of leaders' sense of self-efficacy, which in turn serves as both an impetus and reinforcement for the leaders' own initiative. By considering the viewpoint of school coaches, this article fills a need in literature. Based on data collected from a representative sample, it seems that school leaders who use coaching have an experience profile similar to that of leaders in adult learning settings. The findings of this research provide credence to the claim that educational leaders should cultivate and use coaching skills in their professional interactions with peers. Leaders who employ coaching to aid the development of their subordinates seem to be more resilient to the pressures and challenges of their own positions of authority. At the conclusion of the thesis, suggestions are made for increasing school administrators' exposure to and usage of coaching.

Keywords: *Leadership; Learning; Professional Agency; Self-Efficiency*

A Study to Find Out Design for Sustainable Manufacturing: Integrating Eco-Friendly Materials and Production Techniques in Industrial Product Design

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Abstract

Industrial product design that incorporates eco-friendly materials and modern production procedures is the primary emphasis of this research, which delves into the ideas and practices of sustainable manufacturing. The goal is to find and assess design techniques that make manufacturing processes more efficient and less harmful to the environment. This study seeks to answer the question, "How can innovative materials and methods be integrated into product design in industrial contexts to minimise environmental impact, increase resource efficiency, and support long-term sustainability goals?" by examining this question from many angles. Effective design solutions that reconcile ecological issues with practical manufacturing demands are explored in the research via an examination of case studies and existing practices.

Keywords: *Eco-Friendly Materials; Industrial Products; Manufacturing Techniques; Sustainable Design*

A Study to Understand the Advantages of 3D Visualisation Software for Teaching Creative and Technical Subjects

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Abstract

The purpose of this quantitative research is to examine the usefulness of 3D visualisation software in the classroom to instruct students in technical and artistic disciplines. Pre- and post-intervention exams, engagement surveys, or feedback forms were used to measure performance. Students' academic performance was significantly enhanced by the use of 3D visualisation software; their test scores improved by an average of 22% when compared to the control group. There was a significant increase in engagement as well; 85 percent of those in the experimental group reported feeling more motivated and interested in the material. Also, conceptual clarity ratings improved by 30%, indicating that the program helped with a better grasp of complicated ideas. Both teachers and students agreed that the 3D visualisation tools helped with better spatial thinking, ideation, and memorisation of technical data. The research also found that fields like engineering and design, which relieve heavily complex visual representation, benefited greatly from the program. Finally, the quantitative study shows that there are significant benefits to using 3D visualisation software in the classroom for both technical and artistic disciplines, including more engagement, greater conceptual comprehension, and better academic achievement. The results show that different pedagogical methods may be supported and learning outcomes can be improved by incorporating such technologies into educational activities.

Keywords: *3D Visualisation Software; Pedagogical Methods; Teaching Creative; Technical Subjects*

A Study of the Variables that Affect the Results of Entrepreneurship Education for Individual Students and Teams

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Abstract

This research examines the factors that affect the results of entrepreneurship classes, specifically looking at the students and the teams who participate. The importance of entrepreneurship education in developing future company leaders is growing, hence it is critical to identify what influences its efficacy to improve teaching methods. This study uses surveys with students, teachers, and businesspeople as part of its quantitative methodology. Motivation, team dynamics, teaching approaches, and previous business expertise are some of the important elements that are studied. Individual students' educational performance may be improved by personalised learning methodologies, prior exposure to entrepreneurial principles, and intrinsic desire, according to the research. According to research on team-based learning, the effectiveness of entrepreneurial ventures is greatly influenced by aspects including team cohesiveness, talent variety, and collaborative procedures. Research on the effects of mentoring and experiential learning on individual and group productivity is also included in the research. Evidence suggests that individualised interventions, such as focused skill development and personalised feedback, may boost the effectiveness of entrepreneurship programs. Insights from this study may help teachers create more successful entrepreneurship programs by shedding light on the complex interplay of variables that influence student achievement. Schools may help students and teams thrive in the entrepreneurial world by focusing on these factors.

Keywords: *Performance; Variables That Affect Entrepreneurship Education*

A Study of the Information Technology in Question, Including an Examination of Its Implications on a Number of Chinese Businesses

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Abstract

Internationalisation of Born Global, a subset of SMEs (small and medium companies), is a relatively recent phenomenon that has emerged because of the trend towards globalisation. The Born Globals from wealthy nations like China has received disproportionate attention in the literatures. Nevertheless, many Born Globals may be found in both developed nations like China and more conventional industrial sectors, according to the generally acknowledged Born Global definition. They decided to focus on the internationalisation of Born Globals, a Chinese manufacturing company, in their study. They're curious in the internationalisation goals, methods, and success factors of Born Global, a Chinese manufacturing company. It provides a theoretical framework for the three areas by drawing on canonical Chinese literature on Born Global theories. Their study also includes some comparisons Chinese literatures. In this work, the author used a quantitative case study methodology. Based on the researchers' chosen definition, they have chosen two Chinese manufacturing enterprises, Born Globals, to serve as their case studies. Primary data was gathered via the use of questionnaires and in-person interviews conducted over Skype. Following the required transcribing phase, the empirical finding component is provided in accordance with the theoretical part's structure. Some intriguing findings emerged from the analysis section. The internationalisation of Chinese manufacturing Born Globals is driven by several factors, including the desire to avoid local competition, increase profitability, and take advantage of advantageous regulations that are exclusive to China.

Keywords: *Chinese Businesses; Chinese Manufacturing Industry; Global Company; Information Technology*

A Study to Analyse the Development of an Education Management Information System from a Sensemaking Perspective and the Application of Quantitative Methods to Analyse Education Data Sets

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Abstract

Applying quantitative methodologies to educational data sets, this research examines the creation and effects of an "Education Management Information System (EMIS)" through sensemaking. The necessity to improve data utilisation and strengthen EMISs' ability to assist educational decision-making is the driving force behind the project. Educators, administrators, and legislators are just a few of the stakeholders whose capacities are impacted by the design and operation of EMISs, which researchers first analyse in detail throughout their creation process. Using a sensemaking methodology, researchers evaluate the EMIS's contribution to stakeholders' data interpretation and strategic utilisation. To do this, researchers must examine how users use the system and assess its ability to support data-driven insights or decision-making. Simultaneously, the research analyses education data sets administered by the EMIS using quantitative methodologies. Evaluating the precision, comprehensiveness, and practicality of the collected data is an important part of this process, as is determining how these quantitative analyses aid in bettering educational results and policy choices. There is an emphasis on metrics like data relevance, data integrity, and the effect of data-driven choices on pedagogical methods. The results should shed light on how to optimise the development of EMIS to boost sensemaking skills and the use of quantitative approaches in the classroom. Better educational results are the ultimate goal of the project, which aims to bridge opposing viewpoints to promote more efficient and data-informed methods of educational administration.

Keywords: *Education Data Sets; Educational Administration; EMIS; Sensemaking Perspective*

An Investigation of the Relationship between Collaborative Management and the Overall Effectiveness of Primary Schools in Malaysia

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Abstract

This study analyses the ways in which collaborative management techniques impact the overall success of these primary schools in Malaysia. The primary schools in question are located in Malaysia. An investigation into the impact of collaborative management methods (such as shared decision-making, team-based leadership, and stakeholder participation) on a number of indicators of school success, such as academic performance, teacher contentment, and student outcomes, amongst others, will be the basis for the findings that will be presented. By analysing data from a large number of primary schools using both quantitative and qualitative research approaches, the study sheds light on the ways in which community involvement, school leadership, and teacher cooperation have the potential to improve the effectiveness and quality of teaching. The data was gathered from a wide range of educational institutions.

Keywords: *Collaborative Management; Malaysia; Primary Education; School Effectiveness*

A Study to Investigate How the Rules that Govern Financial Institutions Affect Risk Management and Internal Control Systems

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Abstract

This research investigates the development and implications of a "financial organizations affect risk management along with internal control systems" through the lens of sensemaking, utilizing quantitative methodologies to assess their impact on risk across all data sets. The imperative to enhance data utilization and bolster FIAR's capacity to support financial institutions in influencing risk-all decision-making serves as the fundamental impetus for the project. Educators, administrators, along with legislators represent a selection of the stakeholders whose abilities are influenced by the design and functioning of FIARs, which researchers meticulously examine during their development phase. Employing a sensemaking methodology, scholars assess the FIAR's impact on stakeholders' interpretation of data and its strategic application. In order to achieve this, it is essential for researchers to scrutinize the manner in which users engage with the system and evaluate its capacity to facilitate data-driven insights or informed decision-making. The research concurrently examines the influence of financial institutions on risk data sets managed by the FIAR through the application of quantitative methodologies. Assessing the accuracy, thoroughness, and applicability of the gathered data is a crucial aspect of this endeavor, as is understanding how these quantitative evaluations contribute to the enhancement of financial institutions, influencing risk outcomes and policy decisions. The focus is placed on metrics such as data relevance, reliability of data, and the impact of data-driven decisions on educational methodologies. The findings ought to illuminate strategies for enhancing the development about FIAR to elevate sensemaking abilities and the application of quantitative methodologies within the educational environment. Enhanced financial institutions influence risk management outcomes, which represent the ultimate objective of the project. This initiative seeks to reconcile divergent perspectives to foster more efficient and data-driven approaches to the administration of financial institutions and their impact on risk management.

Keywords: *FIAR; Financial Administration; Financial Institutions Influence; Risk Management; Sensemaking Perspective*

A Study to Understand out Leadership in the Use of Techniques for Knowledge Management in the Kingdom of China

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Abstract

Against the background of the enabling setting of several developing technologies, led by Big Data, this research examines the variance of knowledge management activities, information sharing, and knowledge production, across different industries within the Greater China area. To abbreviate the enabling environment, researchers have come up with the acronym "Big Data Context" (BDC). In the BDC, this study uses quantitative methodologies to delve into the development and exchange of organisational knowledge. A quantitative technique was used in this investigation. The researchers recorded field notes and conducted 24 semi-structured interviews with their informants. Second, using a thorough industry-scale survey, a quantitative method called structural equation modelling (SEM) was used to assess the dependability of the model's primary structure. The constructs as variables have a subtle but comprehensive and mostly beneficial effect on knowledge sharing and production in the BDC/KM environment. Using the constructs as variables, the SEM method confirmed that peripheral contributors to knowledge sharing and core mediators for knowledge creation were the substantive determinants. Several new technologies are shaping the Big Data context in the China area, according to the current substantive theory. Having Big Data at its heart greatly influences the dissemination and generation of new information. According to the results, BDC's potential should not be ignored as a component of the knowledge management system.

Keywords: *Big Data Context; Knowledge Creation; Knowledge Management; Leadership*

Optimizing Cost-Effective Maintenance Strategies for AI and Machine Learning Implementations in Information Technology

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Abstract

Organisational operations have been drastically altered by the integration of AI and ML into IT infrastructures, which has allowed for enhanced data analytics and increased efficiency. Nevertheless, there are unique obstacles to be overcome when it comes to maintaining these AI and ML systems, especially when it comes to controlling expenses while guaranteeing continued performance and dependability. The need to optimise maintenance solutions that are cost-effective and particularly designed for AI and ML installations is addressed in this study. Because of their intrinsic complexity, AI and ML systems require constant vigilance, frequent model changes, and retraining at regular intervals to keep up with ever-changing data trends and preserve accuracy. These systems often defy conventional maintenance methods, which may cause expenses to skyrocket and performance to suffer. Predictive maintenance, which uses ML algorithms to foresee faults before they happen, reduces repair costs and downtime, is one of the unique solutions explored in the article. Also covered is the possibility of using automated monitoring technologies to cut down on labor-intensive human supervision by quickly spotting outliers. The optimal mix of up-front investment in reliable infrastructure and ongoing operating expenses for upkeep is a primary concern of this study. Organisations may improve the total lifetime of their AI and ML systems, optimise resource allocation, and limit risks by taking a proactive and preventative strategy. Information technology (IT) experts and decision-makers may benefit greatly from the provided results, which lay out a framework for creating successful and cost-efficient maintenance plans. To maximise the return on investment (ROI) in these revolutionary technologies, our study adds to the continuing conversation on sustainable AI and ML management by emphasising the need of strategic maintenance.

Keywords: *Organisational; Dependability; Predictive Maintenance Technologies*

A Study to Analyse the Process of Producing a Fine Arts and Design Thesis Based on Actual Studio Work

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Abstract

Focusing on the methodological and productive functions of studios in London, this study investigates the contemporary art studio as a venue for individual creative acts and knowledge creation. Based on interviews with visual artists working in London and artefacts like sketchbooks, assemblages of objects, and prototypes, this article paints a picture of the artist's studio as a microcosm of their independent process of making art. One may argue that the studio provides valuable insights into the exploratory and experimental processes of producing, as well as the knowledge and abilities needed for visual artists to materialise their original concepts and goals. The article paints a picture of an artist's studio as a place of controlled chaos where completed works, unfinished ones, and the results of their study all coexist. One way of looking at the studio is as a place of discovery, where things like study materials, personal experiences, and artefacts are brought together in a way that makes people think. On the other hand, the studio is portrayed as a magical workshop where tactile interaction and magic abound, where physical labour is central to the methodology. It is a place where artists may consistently work on their trade until they master it physically and the process becomes natural. There is a productive and ambiguous tension in the studio that is built on the knowledge practices of thinking critically and engaging one's body, teaching and improvising; the studio is like a personal laboratory for experimentation and invention. This article examines the cultural economy and the trend towards economic individualisation through the lens of creative production processes that are both unique and ever-changing. It delves into the ways in which creative microspaces are designed to foster experimenting, producing, and knowledge.

Keywords: *Experimentation Fine Arts and Design; Knowledge; Studio Work*

Research Examination of the Governance Structures of Academic Planning in Both Private and Public Higher Education Institutions

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Abstract

Academic decision-making, resource allocation, and institutional priorities are the foci of this quantitative research, which compares and contrasts public and private university academic planning governance frameworks. Examining the effects of different governance structures on academic results at public and private universities is the primary goal of this study. Information was gathered from academic administrators, professors, and institutional leaders at several institutions in both sectors using a survey-based methodology. Leadership styles, decision-making procedures, stakeholder engagement, and commitment to institutional objectives were among the important characteristics examined in a survey of 690 respondents. The links between academic planning and governance systems were investigated using descriptive statistics and factor analysis. The findings showed that state policies and financing laws had a far stronger impact on decision-making in public organisations, which tend to have more centralised forms of governance. Academic results were also shown to be strongly affected by these disparities in governance structures; public universities prioritised accessibility and fairness in academic planning, whereas private institutions were more sensitive to market pressures, according to the research. The research shows that different institutions have different purposes and are subject to different external factors, hence effective governance must be individualised. Public and private higher education institutions' governance frameworks impact academic planning; this research adds to our knowledge of this relationship and provides suggestions for improving governance practices to boost academic performance and institutional success.

Keywords: *Academic Planning; Both Private; Public Higher Education Institutions; Resource Allocation*

The Use of Differential Reduction of Generalised Hypergeometric Functions to Feynman Diagrams: One-Variable Case

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_____Abstract_____

This article investigates the differential-reduction process for evaluating Feynman diagrams using generalized hypergeometric functions, focusing on the one-variable case. The researcher explores how integrals derived from Feynman diagrams can be simplified through differential reduction techniques, transforming the reducibility requirements of multiloop Feynman integrals into conditions related to hypergeometric functions. This study compares the study's findings with well-established methods, highlighting the connections between the number of master integrals obtained via differential reduction and those derived from integration by parts. The study's results demonstrate that the criteria for reducibility using hypergeometric functions can effectively rephrase and simplify the analysis of multiloop Feynman integrals. Additionally, the researcher discusses the computational advantages of this method, emphasizing its potential to enhance the precision and efficiency of radiative correction calculations in high-energy physics. By examining the interplay between Feynman diagrams, differential reduction, and hypergeometric functions, this work contributes to a deeper understanding of the intricate theoretical frameworks that govern particle behavior in quantum field theory. The study's findings underscore the importance of algebraic simplification in addressing complex integrals, ultimately aiding physicists in their quest to unravel the fundamental interactions within the quantum realm. This research provides valuable insights into the practical application of differential reduction techniques, paving the way for more efficient and accurate computations in high-energy physics.

Keywords: *Differential Reduction; Feynman Diagrams; Hypergeometric Functions; Multiloop Integrals; Quantum Field Theory*

Factors Associated with Newly Diagnosis with Ischemic Stroke Among People in Thailand: A Community-Based Case-Control Study

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Abstract

Background: Stroke is the second leading cause of death globally and a major contributor to disability-adjusted life years. The incidence rate of stroke ranges from 116 to 483 per 100,000 population/year in Asia. In Thailand, ischemic stroke accounts for approximately 80% of stroke, while the remaining 20% are hemorrhagic. Both of which often result in chronic conditions or long-term disabilities, such as speech/communication or concentration. **Aim:** This study aimed to investigate the factors associated with ischemic stroke among people in Thailand. **Methods:** A case-control study (1:1 ratio) was conducted, including 154 newly diagnosed ischemic stroke as cases and 183 non-stroke people with type 2 diabetes mellitus (T2DM) as controls matched by gender, age group, and community. Data were collected between February and August 2022 (post-Corona virus Disease period) using a structured questionnaire divided into: (1) socio-demographics, (2) lifestyle factors, (3) perceived social support, and (4) self-care management (SCM). Descriptive statistics and multivariable logistic regression models were used to analyze the data with adjusted odds ratios (aOR) and 95% confidence intervals (CI). **Results:** Most of the participants were female (60.8%) and the mean age of the participants was 58.9 (± 9.9) years. The majority were Buddhists (92.9%), married (78.0%), with a primary education or less (76.3%), worked as agriculturists (66.5%), never smoked (73.6%), never had alcohol (61.4%), had no family history of paralysis (92.6%), and had no family history of cardiovascular disease (97.3%). Factors associated with ischemic stroke were: be a male (aOR=3.533, 95%CI (1.732–7.206)), Buddhism (aOR=3.529, 95%CI (1.107–11.250)), having a sedentary occupation (aOR=5.785, 95%CI (2.613–12.807)), and having T2DM for more than 10 years (aOR=6.194, 95%CI (3.553–10.798)). Conversely, aged 60 years and over (aOR=0.553, 95%CI: 0.312–0.982) and having a moderate level of SCM (aOR=0.453, 95%CI: 0.256–0.802) were protective factors. **Conclusion:** People with prolonged diabetes, and with sedentary occupations contribute significantly to ischemic stroke incidence, while moderate self-care management and older age serve as protective factors. Effective prevention programs alongside lifestyle modification, such as diabetes self-care management education could significantly reduce the burden of ischemic stroke.

Keywords: Factors; Ischemic Stroke; Population-Based

Workplace Safety and Labor Rights in Bangladesh's Garment Industry: Analyzing the Effectiveness of Regulatory Measures

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Abstract

The garment industry in Bangladesh is a vital economic sector, employing millions and contributing substantially to the country's GDP. However, it is often criticized for poor workplace safety and labor rights violations. This study aimed to assess the effectiveness of regulatory measures on workplace safety and labor rights within Bangladesh's garment industry. Using a mixed-methods approach, data were collected through surveys, interviews, and secondary sources, analyzing both the current state of workplace safety and labor rights and the impact of local and international regulatory interventions. The findings indicate that while international safety agreements, such as the Accord on Fire and Building Safety, have improved safety standards in some factories, local enforcement remains weak and inconsistent. Labor rights violations, such as excessive working hours and restricted freedom of association, persist in many unregulated or smaller factories, highlighting significant gaps in compliance and enforcement. The study recommends strengthening local regulatory frameworks, increasing resources for inspections, and enhancing worker education and union representation to promote sustainable improvements in the industry. These measures are essential to protect the rights and well-being of garment workers in Bangladesh.

Keywords: Bangladesh; Compliance Enforcement; Garment Industry; International Safety; Agreements; Labor Rights; Regulatory Measures; Workplace Safety

Assessing Provider Quality of Hospital Information Systems: Implications for Economic Sustainability in Malaysian Public Hospitals

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Abstract

The Hospital Information System (HIS) plays a critical role in enhancing green practices in hospital operations. In Malaysia, the implementation of HIS in public hospitals is typically provided by external vendors. The quality of the HIS supplied significantly impacts its usability, user satisfaction, and the net benefits experienced by staff. The level of quality, whether high or low, directly influences the overall usage of the HIS. Thus, this study aims to identify the quality level of HIS provided by invested vendors and assess its effect on usability, user satisfaction, and net benefits. The study involved 1,376 respondents from six public hospitals, with data analyzed using the Statistical Package for the Social Sciences (SPSS) to calculate mean scores. The study findings indicate that System Quality recorded a mean score of 5.430, Information Quality scored 6.284, and Service Quality scored 6.252, all of which are at a moderate level. Usability and User Satisfaction scores ranged between 6.00 and 7.00, while Net Benefits scored between 7.00 and 8.00. Post Hoc tests identified two groups of hospitals with significant differences in overall quality levels: Group 1 (Hospital Bintulu, Hospital Temerloh, and Hospital Lahad Datu) and Group 2 (Hospital Sultanah Nur Zahirah, Hospital Sultanah Bahiyah, and Hospital Sultan Ismail). Therefore, HIS should be optimized to encourage more usage and productivity, ensuring investment favors the principal as mentioned in Agency Theory. Continuous improvement is vital for fostering sustainable practices that align with the Triple Bottom Line principles: social, environmental, and economic sustainability.

Keywords: *Economic Sustainability; Hospital Information Systems; Quality; Vendor*

Effect of Transformational Leadership e-Module on Job Satisfaction and Quality of Care among Nurse Middle Managers: A Literature Review

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Abstract

Background: the debate on the effect of leadership styles on job satisfaction and quality of care is related to the impact of various leadership styles on the nursing working environment and healthcare quality provided. Therefore, the current systematic review aimed at examining the effect of the transformational leadership e-module on job satisfaction and quality of care among nurse middle managers. **Methods:** This systematic review was carried out based on PRISMA guidelines. A literature search was performed in PubMed, MEDLINE, CINAHL, APA PsycINFO, and Google Scholar. All studies published between 2018 and 2024, in the English language and reporting the effect of transformational leadership module on job satisfaction and quality of care among nurses were established as eligible studies. **Results:** Eight studies were included in the systematic review. All the studies were primary studies using cross-sectional design. All the studies reported positive effects of transformational leadership on job satisfaction and quality of care. **Conclusion:** The adoption of a transformational leadership style by nurse managers potentially improves job satisfaction among nurse managers and staff members. It also contributes to the quality of care in its six areas.

Keywords: *Job Satisfaction; Quality of Care; Nurse Middle Managers; Systematic Review; Transformational Leadership*

A Systematic Review and Synthesis of the Factors Affecting Job Satisfaction among Nurses

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Abstract

Job satisfaction among nurses is critical to the overall effectiveness of healthcare systems, as it directly influences both the quality of patient care and nurse retention rates. Despite their essential role in delivering healthcare, nurses frequently encounter factors that diminish their job satisfaction. The objective of this study is to systematically review and synthesize papers exploring factors affecting job satisfaction among nurses. The design of the study is based on a systematic review and synthesis of qualitative papers. Papers were identified through three data sources, searched in the English language from 2020 to 2025. Studies that explored the factors affecting job satisfaction among nurses and the relevant coping mechanisms were eligible for inclusion. A total of 16 papers were included in the review. The results showed that job satisfaction among nurses is profoundly influenced by a variety of interconnected factors, including workload and job demands, emotional and psychological factors, work environment and support systems, resilience, and crisis-related stressors. The findings highlighted major coping mechanisms that contribute to enhancing job satisfaction among nurses, including support and social networks, mindfulness and stress management techniques, organizational support, self-care practices, and professional development. The interplay of various factors contributing to job satisfaction among nurses emphasizes the need for comprehensive strategies that address both individual and systemic issues. By fostering supportive work environments, enhancing resilience, and providing effective coping mechanisms, healthcare organizations can significantly improve job satisfaction among nurses. This holistic approach benefits not only the caregivers but also the patients they serve, ultimately leading to better healthcare outcomes.

Keywords: Job Satisfaction; Nurses; Healthcare, Stress; Work Environment; Coping Strategies

Research on Detection Algorithms Based on Pedestrian Features

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Abstract

Support By Key Projects of Guangzhou Panyu polytechnic in 2021, numbered: 2021KJ07, project name: Research on Key Technologies of Pedestrian Detection Based on Deep Learning. Inter-frame difference method, optical flow method and Gaussian background modeling method are the most commonly used algorithms for pedestrian detection based on motion characteristics. These algorithms have simple principles, small memory usage, simplified code, and good results in experimental environments..

Keywords: *Motion Feature; Detection*

The Mediating Role of Organisational Performance in the Relationship Between Talent Management and Retention a Study in Public Sector in Beijing, China

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Abstract

People, rules, and systems all have a role in how well a human resource management system works with the workforce. Money, materials, labour, and machinery are the building blocks of every organisation. To be competitive on a worldwide scale, a company needs talented employees that can hone their intelligence to build the market and implement top-notch organisational learning strategies. Organisational performance and productivity are inversely related to the amount and quality of human resources. Managers face a formidable obstacle in the shape of creating and maintaining a productive staff. The purpose of this research is to examine the connection between talent management and employee retention in Beijing, China's public sector, with a focus on the mediating function of organisational performance. The data from 1895 participants were analysed using SPSS 25. This study's findings may help public administrators develop comprehensive plans that effectively combine organisational performance with people management in order to achieve long-term success. The effectiveness of a company's workforce is greatly affected by talent management. As a mediating variable, talent management aids employee retention by its indirect influence on organisational performance, which in turn has a substantial influence on talent management's influence on staff retention. Because this research relies only on replies from upper and middle management, its variables have some limitations. According to the results, future studies should take a broader look at HR-related topics, with a particular emphasis on how talent management affects retention rates, both directly and via organisational performance as a mediating variable that has multiple dimensions and components.

Keywords: *Organisational Performance; Talent Management; Employee Retention; Public Sector in Beijing; China*

A Study to Explore the Research and Development Process of Malaysia's Renewable Energy Industry

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Abstract

Given the country's diminishing fossil fuel sources and growing domestic energy use in Peninsular Malaysia, Malaysia is being utilised as a case study to examine energy security concerns. Malaysia ranked third among Southeast Asian nations for carbon dioxide emissions in 2014. In keeping with these two tenets, this thesis were investigate the potential for reducing our dependency on fossil fuels by 73.8% via the generation of electricity from renewable sources such as wind, biomass, sun, and hydro. In order to address the growing demand in peninsular Malaysia, this research examined the advantages and disadvantages of using solar power in combination with renewable energy systems or fossil fuels. Improving environmental conditions and reducing the possibility of energy shortages are among the countries' priorities. Two halves of the case study, one covering 2030 and the other 2040, were used to analyse different combinations of renewable systems and hybrid power producing systems. The acronym HOMER (Hybrid Optimisation of Simulated Using Multiple Energy Resources) was used by both sections to represent the different cases. Based on demand figures gathered from the Malaysia Energy Information Handbook (MEIH) and publicly accessible growth factors from the Malaysian Energy Commission, the model projected demand for the next twenty years. Reputable organisations such as IRENA and the EIA provided recommendations for renewable energy sources and estimated costs.

Keywords: *Renewable Energy; Solar Energy; Wind Energy; Development Process*

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 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 which can achieve optimizing the process of data transfer procedures without jeopardizing security and integrity in the process. This study applies the 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, adaptive routing protocols tailored to address some of the challenges posed by the Ningxia network environment. Using software of 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-the 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*

Knowledge Management as an Effort to Develop Nurse Performance in Hospital

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Abstract

The professional nursing care techniques employed have an impact on the quality of nursing care. A team concept is used by certain hospitals to enhance organizational effectiveness. This study set out to perform a systematic review of initiatives to use knowledge management to build hospital teams. A systematic review is the research methodology (systematic review). Scopus, ProQuest, Science Direct, and PubMed are the databases that are utilized. The terms "quality" and "knowledge management" were used in this literature search. According to the study's findings, 217 papers were located among four databases: Scopus (5, ProQuest 113, Science Direct 83, and PubMed 16). Following the selection of eight papers that satisfied the inclusion requirements, each item was assigned a serial number and subjected to an analysis was carried out to facilitate the review process. The conclusion of this article analysis process is that knowledge management can be integrated in efforts to improve nurse performance in implementing the hospital.

Keywords: *Knowledge Management, Quality, Professional Nursing, Hospital*

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