

# MJMR

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*for the*

# 7<sup>th</sup> International Conference on Healthcare and Allied Sciences (ICHAS 2024)

*Organized by:*

**Lincoln University College, Malaysia**

*in collaboration with*

**Mindanao State University – Iligan Institute of Technology, Philippines**

**University of Muhammadiyah Semarang (UNIMUS), Indonesia**

*and*

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## *Message*

A warm welcome to all as we gather for the 7<sup>th</sup> International Conference on Healthcare and Allied Sciences (ICHAS), an esteemed event hosted by Lincoln University College, Malaysia. It is an honor to address such a distinguished audience united to explore cutting-edge advancements and breakthroughs in healthcare and allied sciences.

This gathering serves as a platform to celebrate the dedication of healthcare professionals, whose relentless commitment has saved countless lives while providing an opportunity to collaborate on innovations that can further refine the practices in our field.

Lincoln University College remains deeply committed to advancing education and research for the betterment of society. This conference marks an important chapter in that journey, bringing together experts, researchers, educators, and practitioners from across the globe to share their knowledge and insights. By working together, we can ensure that advancements lead to more reliable healthcare systems.

The healthcare and allied sciences fields are ever-evolving, shaped by rapid advancements in medical technologies, emerging treatment methodologies, and the increasing complexity of patient needs. As we delve into the conference, our collective wisdom, experiences, and shared challenges will drive progress that enhances healthcare delivery.

As we embark on this journey, remember that this is more than just a conference - it's a shared endeavor toward a common goal: fostering collaboration and innovation in our field. The diverse perspectives we bring to the table will enrich our conversations, spark partnerships, and inspire meaningful developments in patient care.

I want to extend my sincere thanks to all the participants, keynote speakers, and organizers who have worked tirelessly to bring this event to life. Your dedication to the field of healthcare and allied sciences is truly commendable, and your presence here reaffirms your commitment to making a tangible difference through innovative practices.

I encourage each of you to actively participate in consultation, exchange ideas, and cultivate partnerships that can lead to groundbreaking discoveries. Let this conference be a catalyst for positive change - a forum for innovative solutions and a source of inspiration as we collectively work toward effective healthcare practices.

I wish you all a productive and insightful experience throughout the 7<sup>th</sup> International Conference on Healthcare and Allied Sciences. May the knowledge shared here fuel progress in healthcare, and may our combined efforts contribute to a brighter future in our field.







**Prof. Dr. Amiya Bhaumik**

*President*

Lincoln University College, Malaysia

## *Message*

It is with immense pleasure that we warmly welcome each of you to the 7<sup>th</sup> International Conference on Healthcare and Allied Sciences (ICHAS). We are truly delighted to have you join us for this prestigious event, where we come together to explore and advance critical areas within healthcare.

In a world where healthcare systems face ever-growing complexities, the need for accurate, timely, and reliable practices has never been more essential. This conference provides a unique platform for scholars, researchers, practitioners, and policymakers to exchange knowledge, spark innovation, and forge collaborations that will help refine methods and ultimately enhance outcomes worldwide.

Healthcare and allied sciences continue to evolve at a rapid pace. From technological breakthroughs to the changing needs of patients, the landscape of healthcare is constantly being reshaped. This conference serves as a space where our collective expertise, diverse perspectives, and innovative approaches can converge, driving forward new solutions that will revolutionize patient care.

As we embark on this journey, it is important to remember that we are not merely attendees of a conference; we are contributors to the progress and well-being of global health systems. Our shared experiences, insights, and efforts can pave the way for transformative changes that will improve the lives of countless individuals across the world.

I would like to extend my heartfelt gratitude to all participants, keynote speakers, and organizers whose hard work and dedication have made this event possible. Your contributions to the field of healthcare and allied sciences are deeply appreciated, and your presence here reflects your commitment to the advancement of healthcare.

This conference is a convergence of minds, a celebration of ideas, and a testament to the power of collaboration. As we engage in discussions over the coming days, let us keep in mind the critical role we play in shaping a healthier future for all. Together, we can harness the potential of science, research, and innovation to overcome the challenges facing healthcare today.

On behalf of Lincoln University College, it is my distinct honor to welcome you to this conference. Your participation embodies our shared commitment to excellence, innovation, and progress in healthcare. Let us embark on this journey of discovery and collaboration, with the firm belief that the work we do here will help shape the future of healthcare for generations to come.

Thank you for your presence, your dedication, and your commitment to these vital pursuits. We look forward to the insightful discussions, groundbreaking collaborations, and transformative outcomes that will emerge from this conference.





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

*Vice Chancellor & CEO*

Lincoln University College, Malaysia

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## *Message*

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It is with immense pleasure and profound joy that I stand before you today to inaugurate the 7<sup>th</sup> International Conference on Healthcare and Allied Sciences (ICHAS), hosted by Lincoln University College. This prestigious gathering presents an extraordinary opportunity to address some of the most pressing issues in healthcare, with a special focus on advancing diagnostic accuracy.

The International Conference on Healthcare and Allied Sciences (ICHAS) has become a hallmark event, annually bringing together leading experts, researchers, practitioners, and policymakers from across the globe. This year's emphasis reflects the growing awareness of the need for more accurate, reliable, and timely diagnoses to improve overall healthcare outcomes.

At ICHAS, attendees will engage in dynamic discussions, insightful presentations, and poster sessions centered on the latest innovations in healthcare research, practice, and policy. The emphasis on interdisciplinary collaboration is particularly crucial as we tackle global healthcare challenges. The conversations we will have over the coming days are framed by this essential objective—to explore new ways to improve diagnostic processes and enhance outcomes for all patients.

This conference provides a vital platform for the exchange of knowledge, experiences, and forward-thinking ideas. It is a forum where healthcare professionals, researchers, educators, and students come together to discuss pioneering research, innovative diagnostic tools, and the latest trends in patient care. It is an opportunity to bridge the gap between theory and practice, between academia and clinical applications, and between different disciplines within healthcare. Together, we can drive meaningful improvements in healthcare delivery.

I extend my heartfelt appreciation to all participants, speakers, and organizers who have worked tirelessly to bring this event to life. Your presence here today is a testament to your dedication to improving healthcare and allied sciences. On behalf of the organizing committee, I offer my deepest gratitude to our speakers, sponsors, volunteers, and all contributors. Your commitment is vital in making this conference a success.

As we embark on this journey, I encourage you to stay engaged, continue innovating, and remain steadfast in your commitment to advancing healthcare. Together, we can make a lasting impact on individuals and communities across the globe by improving diagnostic practices. In a world where information flows ceaselessly and the boundaries of possibility continue to expand, we gather here to explore new ideas and forge innovative paths forward.

I welcome you to the 7<sup>th</sup> International Conference on Healthcare and Allied Sciences, where extraordinary insights lead to extraordinary results. The future of healthcare is in our hands, and together, we can shape it. Let the journey begin!



## Yoga and its importance in Healthcare and Holistic Living; Enhancing Physical, Mental and Emotional Well-being

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### Abstract

**Introduction:** Yoga, originating in ancient India, is a holistic practice that integrates physical postures (asanas), breath control (pranayama), and meditation to enhance overall well-being. In recent years, it has been increasingly adopted into healthcare systems as a complementary therapy, promoting physical, mental, and emotional health. The growing trend toward holistic living, which emphasizes the balance of mind and body, has further underscored yoga's significance in addressing not only physical health but also mental and emotional challenges. **Objectives:** To critically assess the role of yoga in enhancing physical health, to explore its effects on mental well-being—particularly stress reduction and emotional regulation, to evaluate its integration into healthcare systems as a preventive and therapeutic modality, and to examine the scientific evidence supporting yoga's holistic health benefits. **Methods:** This review is based on a comprehensive analysis of peer-reviewed articles, clinical studies, and systematic reviews published over the past two decades. Literature was sourced from databases including PubMed, Scopus, and Google Scholar. Studies were analyzed to assess the physiological, psychological, and emotional outcomes of consistent yoga practice, with special emphasis on those relevant to healthcare applications. **Results:** The literature demonstrates robust evidence for the role of yoga in improving physical health, including enhanced flexibility, strength, and cardiovascular function. Yoga has also been shown to significantly alleviate symptoms of stress, anxiety, and depression, with numerous studies highlighting improved emotional regulation and resilience. Additionally, integrating yoga into healthcare has been effective in managing chronic conditions like hypertension, diabetes, and mental health disorders. The evidence suggests that yoga complements conventional treatments by promoting a holistic approach to healthcare. **Discussion:** The findings underscore yoga's multifaceted benefits, addressing the physical, mental, and emotional dimensions of health. Yoga's focus on mindfulness and self-awareness enhances its effectiveness in reducing stress and fostering emotional balance. These outcomes align with modern integrative healthcare models that increasingly recognize the therapeutic potential of mind-body practices. However, more research is needed to develop standardized guidelines for incorporating yoga into clinical practice. **Conclusions:** Yoga provides a holistic approach to healthcare by enhancing physical fitness, mental clarity, and emotional stability. As more evidence supports its therapeutic benefits, yoga is positioned to serve as a valuable complementary treatment for various conditions. Further research is necessary to solidify its integration into healthcare settings and expand its application as a preventive and therapeutic tool.

**Keywords:** Yoga, Physical Well-being, Mental Health, Emotional Balance, Holistic Health, Healthcare Integration, Complementary Therapy.

## Biofilm Related Candida Albicans Infections: A Challenging Clinical Situation

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### Abstract

*Candida albicans* remains as a harmless commensal of the human microbiota, asymptotically colonizing various body sites. However, decreased host immunity, stress, prolonged antibiotic and corticosteroid use may lead to *C. albicans* overgrowth causing a wide range of infections ranging from superficial mucosal to invasive candidiasis. It, therefore, becomes essential to ascribe pathogenicity to clinical isolates of *C. albicans* obtained from sites, where this organism resides as part of the normal flora of the body. Biofilm formation by *C. albicans* is a novel strategy adopted by this fungus to evade host immunity and antimicrobial pressure. Investigations conducted on *C. albicans* biofilms, revealed that such biofilms, apart from being markers of pathogenicity, could be implicated in the adherence of this organism to inert materials like indwelling medical devices, and also onto living surfaces *in vivo*. In a recent study conducted at the Nepal Manipal College of Medical Sciences, a 750 bedded multi-specialty tertiary care hospital at Pokhara, Nepal; it was documented that 52.8 % of the clinical isolates of *C. albicans* were biofilm producers. A majority of these biofilm positive organisms were capable of producing extracellular enzymic virulence factor like proteinase and were often shown to be having increased cell surface hydrophobicity. An analysis of the antifungal resistance pattern of these isolates, showed that 71.4 % of the fluconazole resistant *C. albicans* were biofilm producers, as compared to only 28.58 % which were non-biofilm producers ( $p < 0.05$ ). It was also observed from earlier studies that a higher number of biofilm positive *C. albicans* strains were adherent to artificial devices, as compared to their planktonic counterparts. Over and above, a greater number of clinical isolates obtained from deep seated *C. albicans* infections, were found to be biofilm positive in contrast to those from sites of mere colonization. Thus, biofilm forming ability of *C. albicans* clinical isolates could be an important virulence characteristic of these fungi, not only to evade host immunity, but also to exhibit recalcitrance to antifungal therapy.

**Keywords:** *Biofilm, Candida Albicans Infections, Clinical Situation*

## Building a Robust Safety Culture: Enhancing Patient and Clinician Outcomes in Healthcare

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### Abstract

A strong safety culture in healthcare is essential for improving patient outcomes, clinician well-being, and the overall quality of care. This paper explores the components and significance of safety culture within hospital settings, emphasizing how leadership, communication, teamwork, and resource allocation contribute to its development. Safety culture shapes behaviors, attitudes, and perceptions, helping healthcare providers understand what is right and expected in the work environment. Key elements such as nonpunitive feedback, error detection systems, and leadership engagement are critical in fostering an environment where patient and clinician safety are prioritized. Hospitals with a well-established safety culture experience fewer medical errors, infections, and complications, while also reducing clinician burnout and turnover. Safety culture impacts not only patient care but also the effectiveness of quality interventions, which can be shaped and improved through targeted strategies. This paper also outlines the Comprehensive Unit-based Safety Program (CUSP) and the importance of adaptive work in tailoring safety practices to meet the specific needs of each healthcare unit. Additionally, the implementation of health facility management systems that prioritize patient safety, such as clinical audits, safety protocols, and personnel safety programs, is crucial for promoting a culture of safety. Patient-centered care, informed consent, and involving patients and their families in safety initiatives further strengthen the relationship between healthcare providers and recipients. Through a multi-faceted approach, hospitals can effectively transform their safety culture, ultimately enhancing both patient safety and clinician satisfaction. This paper highlights the importance of continuous improvement and leadership commitment in building a robust culture of safety in healthcare settings.

**Keywords:** *Safety Culture, Patient Safety, Leadership in Healthcare, Patient-Centered Care*



## Building a Robust Safety Culture: Enhancing Patient and Clinician Outcomes in Healthcare

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### Abstract

Evidence-based practice (EBP) in nursing is an approach that integrates the best available research evidence with clinical expertise and patient values to make decisions about patient care. The goal is to improve patient outcomes and ensure high-quality care by using the most current and effective interventions. There are several steps in implementing EBP works in nursing: Step 1. Asking Clinical Questions: It starts with identifying a problem or a question about patient care. For example, a nurse might ask, "What's the best way to manage pain for patients post-surgery?" Step 2. Searching for Evidence: Nurses then look for research and evidence related to their question. This involves reviewing scientific studies, clinical guidelines, and other relevant literature. Step 3. Appraising the Evidence: The next step is to evaluate the quality and relevance of the evidence found. This means assessing the validity, reliability, and applicability of the research. Step 4. Applying the Evidence: Once the evidence is appraised, it's applied to clinical practice. This involves integrating the research findings with clinical expertise and considering patient preferences and values. Step 5. Evaluating the Outcomes: After implementing evidence-based interventions, nurses assess the outcomes to see if the changes lead to improvements in patient care. The last but not least is Step 6. Disseminating and Sharing Findings: Effective practices are shared with colleagues and incorporated into protocols and policies to benefit more patients. The Key Components of EBP in Nursing consist of clinical expertise: The skills and past experiences of nurses, which help in interpreting evidence and making informed decisions. Second key components is patient values and preferences: Understanding what is important to patients, including their preferences and values, which should guide care decisions. The best research evidence is the last key where: High-quality research that provides reliable and valid information relevant to patient care. By focusing on these elements, EBP aims to ensure that nursing practices are grounded in the best available evidence, leading to better patient outcomes and more efficient, effective care.

### Keywords:

## The Development of Triage Emergency Instruments in Determining the Level of a Patient's Emergency Based on Fulfilling Basic Human Needs on

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### Abstract

Triage emergency in hospitals has an important function in the process of sorting patients based on the level of emergency, so appropriate instruments are needed that can be used to sort all patients in the emergency department. This study aims to develop an emergency triage instrument based on fulfilling basic human needs. This study was conducted in two stages. Stage 1 used an explanatory research design with a cross sectional approach. The sample was 145 emergency nurses and patients family using a cluster random sampling technique. The analysis technique used is Partial Least Square (PLS). Stage 2 is the constructing of emergency triage instruments based on fullfilment basic human needs through strategic issues, FGDs, expert consultations and expert discussions. The results of stage 1 of study showed that patient factors were the factors that most strongly influenced the development of emergency triage instruments ( $p=0.000$ ) compared to other factors, namely hospital policy factors ( $p=0.007$ ). The results of the stage 2 of study were the development of an emergency triage instrument based on fullfilment basic human needs, consisting of a primary emergency triage algorithm in the form of an ER patient triage flow and a secondary ER triage instrument in the form of indicators of basic needs disorders which have different scores and burden. The development of an emergency triage instrument based on fullfilment basic human needs is influenced by two factors, namely patient factors and hospital policy factors. Patient factors are the main components of triage instruments. Hospitals have the authority to make policies on the use of emergency triage instruments

**Keywords:** *Emergency Care, Partial Least Square (PLS), Triage*

## Timeless Knowing and Being as Caring: A Theory Construct

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### Abstract

Nursing care is essential to sustain people and the planet. Nursing practice in this disruptive era poses a challenge for quality nursing care: holistic and humane care of clients and families, that can be affirmed and actualized in timeless knowing and being as caring in nursing. As professional nurses are challenged day-to-day with a client-nurse meaningful human health experience in multiple realities, nurses can be oblivious to the essence of caring in nursing. This paper explores the construction of the essence of caring as influenced by the historicity of philosophical, theoretical, epistemological, and ontological underpinnings: from concept to context and from philosophy to paradigm, to validate the genesis of a novel theory construct whilst contextualizing in discursive prose and argumentation; to demonstrate a deeper understanding of the interplay of time, knowledge, and being as caring. Thus, the design of an intelligible representation of caring can be gleaned from a paradigm. A theory construct envisaged a cautious dissection of the outer and inner layers of the core “caring,” which reveals the transitional flow of connection into “knowing” and “being” in the three-layered core. The intensity of caring reflects the genuine nature of being at the core regardless of the element of time depicted as timeless and interpolates the illustrated swift and provocative moving and revolving arrow around the core of caring. The sense and substance of caring that is timeless is grounded in the essence of caring that is knowing and being.

**Keywords:** *Being; Caring; Core; Nursing; Timeless*

## A Comparative Study on the Susceptibility to Medication Errors among Nursing Students at a University in Southern Philippines

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### Abstract

**Background:** Patient safety has been a cornerstone of healthcare since the early 19th century, when Florence Nightingale emphasized the need for hospitals to protect patients from harm. Today, patient safety remains a top priority in healthcare systems worldwide, with errors posing serious risks to patients and serving as key indicators of care quality. Nurses, as the largest group of healthcare professionals globally, play a crucial role in promoting patient safety. One of the most pressing challenges in this area is medication errors, which continue to be a significant global issue, particularly among student nurses during their clinical practice. **Objectives:** This study aimed to assess the susceptibility to medication errors among level 2 to level 4 nursing students at the Mindanao State University - Iligan Institute of Technology - College of Health Sciences (MSU-IIT-CHS), with a focus on Technical, Human Operator, and Organizational factors. **Methods:** This study utilized a descriptive survey design, involving 173 students selected through proportionate stratified random sampling. The participants completed a modified questionnaire, which underwent face validity assessment, a reliability test with a Cronbach's Alpha score of 0.842, and pilot testing. The 4-point Likert scale questionnaire assessed perceived susceptibility to medication errors across Technical, Human Operator, and Organizational factors. Data analysis was conducted using ANOVA to explore potential differences in susceptibility to medication errors across the various levels of nursing students. **Results:** The results revealed that the majority of respondents were level 4 students (42.8%), aged 21-22 years (61.8%), and predominantly female (75.1%). Regarding their susceptibility to medication errors, factors such as technical, organizational, and administrative considerations indicated a low likelihood of errors. The study found no statistically significant differences in susceptibility across the three-year levels concerning technical, human operator, and organizational factors. Respondents identified human operator factors as the most influential in increasing susceptibility to medication errors, followed by technical and organizational factors. These findings highlight the importance respondents place on acquiring comprehensive drug administration knowledge and maintaining personal well-being to ensure safe and error-free medication practices. **Conclusion:** This study underscores the significant impact of human operator factors, particularly knowledge and personal attributes, on the susceptibility to medication errors among nursing students at all educational levels. As a result, clinical instructors should assess their students' understanding of pharmacology before they begin hospital rotations and support them in managing the stress and anxiety associated with clinical learning environments, especially during medication administration. This approach will help reduce medication errors and enhance patient safety.

**Keywords:** Medication Errors; Medication Administration; Contributing Factors; Nursing Student; Patient Safety



## Profile and Level of Competence in Medication Administration Process of Aspiring Nurses in a State-funded University in Southern Philippines

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### Abstract

**Background:** Ensuring the safe administration of medication is a crucial responsibility for nurses. This includes verifying that the correct medication is prepared and given in the appropriate dosage, to the right patient, at the correct time, and via the correct route. For aspiring or student nurses, applying this medication administration process in clinical settings can be challenging. The balance between acts of omission and commission highlights the importance of sound clinical judgment. Therefore, it is essential for aspiring nurses to develop competence in patient care, including the medication administration process, under the supervision of a clinical preceptor to prevent medication errors. **Objectives:** This study aimed to assess the level of competence among aspiring nurses in the medication administration process across several areas: interdisciplinary collaboration, medication calculation, medication education, medication safety, and documentation. It also sought to identify the factors influencing their competence levels and to examine the differences and correlations between the respondents' demographic profiles and their overall competence. **Methods:** The study employed a quantitative correlational design and included 156 respondents, all of whom provided informed consent, with strict adherence to institutional ethics committee protocols. Proportionate stratified random sampling was used. Data were collected using a pilot-tested, researcher-developed questionnaire with a Cronbach's alpha of 0.91. The data were analyzed using descriptive statistics, measures of central tendency and variability, analysis of variance, Kendall's tau correlation, and Pearson rank correlation. **Results:** The findings show that the respondents performed the task most of the time with occasional exceptions in terms of interdisciplinary collaboration ( $\mu=4.10$ ), medication calculation ( $\mu= 3.88$ ), medication education ( $\mu = 3.97$ ), and documentation ( $\mu = 4.14$ ), but medication safety was performed consistently without exception ( $\mu = 4.52$ ). Among the areas of competence, medication safety (96.79%) ranks highest, while medication calculation (72.44) is the lowest. Overall, the level of competence in the medication administration process is above average, and the number of exposures in clinical rotations has been found to have the highest impact on the level of competence. The results showed that the respondents' demographic profile and overall level of competence did not differ significantly. However, there was a positive correlation between the age demographic profile of the respondents and overall competence. **Conclusion:** The competency level of aspiring nurses in the medication administration process shows a clear progression. Over time, aspiring nurses acquire and develop their skills, moving toward mastery or proficiency. The increasing exposure gained through clinical rotations is crucial in shaping them into highly competent professional nurses. Moreover, these hands-on clinical experiences help refine their competencies, leading to a stronger foundation in interprofessional collaboration, which is essential for safer patient care and professional nursing practice.

**Keywords:** *Aspiring Nurses; Level of Competence; Medication Administration Process*

## In Posttraumatic Growth: A Descriptive Correlational Study Among Breast Cancer Survivors in Southern Philippines

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### Abstract

**Background:** Breast cancer accounts for 16% of all cancer diagnoses in the Philippines. Numerous qualitative studies have confirmed that cancer survivors experience posttraumatic growth, highlighting their personal journeys of positive psychological transformation. **Objectives:** This study aimed to describe the presence of posttraumatic growth among breast cancer survivors and to examine how changes in the degree of perceived posttraumatic growth correlate with their sociodemographic and health-related profiles. **Methods:** This study employed a descriptive correlational research design participated by 31 respondents selected through snowball sampling technique. The Posttraumatic Growth Inventory (PTGI) questionnaire was utilized. The data was analyzed using the Frequency distribution, Descriptive mean and Standard deviation, Spearman Rank Correlation Test and Chi-square test. **Results:** The findings reveal that most respondents are aged 40-49 years (29.03%), married (71%), have attained tertiary education (41.94%), and are housewives (35%). Health-related variables indicate that most respondents have a primary diagnosis of stage 2 cancer (32.26%), 0-2 years have elapsed since diagnosis (41.94%), commonly have comorbidities such as hypertension (45%), and receive primary social support from their spouse (71%). Among the domains of posttraumatic growth, the highest degree experienced was spiritual growth. Improved relationships were found to be significantly correlated with health-related characteristics, such as the stage of cancer at diagnosis. **Conclusion:** The study shows that posttraumatic growth among breast cancer survivors was influenced by sociodemographic and health-related factors, specifically age and cancer stage at diagnosis. However, these factors are not definitive markers for posttraumatic growth development. This suggests that age-specific and cancer-stage-specific interventions may be beneficial in enhancing posttraumatic growth, with particular attention given to older adults and those with advanced cancer stages. Additionally, holistic care, including the importance of spiritual support provided by nurses, should be promoted regardless of these factors.

**Keywords:** Posttraumatic Growth; Socio-Demographic Profile; Health Related Profile; Breast Cancer Survivors

## Correlation Between Demographic Factors (Age, Gender, and Living Area) and Tuberculosis Notification Rates in Private Healthcare: A Cross-Sectional Study

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### Abstract

Tuberculosis (TB) remains a significant global health challenge and is one of the leading causes of death from infectious diseases worldwide. In 2022, TB claimed approximately 1.3 million lives, underscoring its severity. Indonesia ranks second globally in pulmonary TB cases, following India and ahead of China. According to the World Health Organization, an estimated 10.6 million individuals developed TB in 2022, marking a slight increase from the previous year. Without proper treatment, TB can have a mortality rate of up to 50% within the first year of infection, highlighting the urgent need for effective interventions. Several factors contribute to the ongoing TB crisis, including deficiencies in healthcare delivery, limited access to diagnostic and treatment services, inadequate case detection, and inconsistent reporting protocols. These issues have resulted in nearly 3.1 million TB cases going unrecorded in 2022, representing about 30% of the global total and exposing significant gaps in TB surveillance and reporting systems. TB notification rates are influenced by various factors, such as patient demographics (age, gender, and living area), healthcare provider characteristics, and the effectiveness of the notification system. The objective of this study was to investigate the correlation between patient demographic factors (age, gender, and living area) and tuberculosis (TB) notification rates, specifically focusing on under-notification. This study used the Spearman correlation test to evaluate the associations between the identified factors and the under-reporting of TB cases. Results: The findings indicate significant correlations between a patient's living area and the under-reporting of TB cases ( $p < 0.05$ ). However, patient age and gender did not show significant correlations with TB under-reporting ( $p > 0.05$ ). Tuberculosis (TB) remains a significant global health challenge, marked by high mortality rates and persistent underreporting issues. This study on TB underreporting in Indonesia's private healthcare sector found that gender and patient age did not significantly impact reporting rates, underscoring the complexities in healthcare access, diagnostics, and reporting protocols. However, urban residency was significantly correlated with TB underreporting, highlighting disparities in healthcare access between urban and rural areas. Addressing these challenges will require strengthening healthcare infrastructure, improving diagnostics, and standardizing reporting practices to enhance TB surveillance and control efforts globally.

**Keywords:** Tuberculosis; Age; Gender; Living Area; Notification

## Operating Room Nurses' Self-Reported Knowledge and Attitude on Perioperative Pressure Injury

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### Abstract

**Background:** Pressure injuries (PIs) are a global concern for healthcare providers, especially among patients who were not at risk of developing a PI before surgery but become at risk during or after surgery. This descriptive, cross-sectional study aimed to assess operating room nurses' knowledge and attitudes toward pressure injury prevention.

**Methods:** This study was performed with 221 nurses working in five operating rooms at a Public Hospital, Malaysia. The data were collected with the Pressure Ulcer Knowledge Assessment (PuKAT) and Attitude Towards Pressure Ulcer Prevention Instrument (APuP) and analyzed with parametric and nonparametric tests using SPSS 27.0 package program. The statistical significance level was accepted as  $p < 0.05$ . **Results:** The total mean score of the PuKAT of the operating room nurses was 31.74%; the total mean score of the APuP was 65%. There was no relationship between the pressure ulcer knowledge assessment and the attitude towards pressure ulcer prevention. The ethnic group, level of education and job position had associate with the pressure ulcer knowledge assessment; while there was no significance association found between the respondents' characteristic with attitude towards pressure ulcer prevention.

**Conclusion:** The findings of this study indicate a deficiency in the knowledge levels of operating room nurses alongside satisfactory attitudes. Thus, it is recommended to enhance both the knowledge and attitudes of operating room nurses regarding pressure injury prevention through the implementation of effective in-service training programs.

**Keywords:** *Operating Room; Theatre; Nurses; Pressure Injury; Ulcer; Prevention*



## Innovative Online Stroke Rehabilitation Algorithm: Conceptualization, Design, Implementation, and Initial Pilot Study

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### Abstract

**Introduction:** This chapter provides a comprehensive overview of the innovative clinical algorithm designed for stroke rehabilitation. It explores the rationale behind its development, considering the unique needs and challenges faced by stroke patients and healthcare providers. Key components and functionalities of the algorithm are discussed in the context of its integration within the broader stroke rehabilitation framework. **Objectives:** The study aims to develop an online stroke rehabilitation algorithm for the early physical activity of stroke patients in ongoing rehabilitation. **Methodology:** A quasi-experimental design will be employed at a private Rehabilitation Center from October 2022 to October 2024. The newly developed online algorithm will be tested against conventional treatment for diagnosed stroke patients aged 20 to 65. The Stroke Physical Activity Questionnaire (SPAQ), utilizing the Barthel index and a stroke-specific quality of life questionnaire, will be developed. Participants will be enrolled through convenient sampling, and the algorithm's validity will be assessed through pretest and posttest questionnaires. Ethical considerations, participant confidentiality, and informed consent are prioritized. Data collection occurs in three phases: enrollment and assessment, pilot study, and full-scale treatment, with SPSS software used for analysis. **Results:** Statistical analysis indicates a significant improvement in early rehabilitation aspects, including mobility and activities of daily living ( $p < 0.05$ ). The online management system correlates positively with increased adherence to exercises and more comprehensive engagement in rehabilitation. **Conclusion:** The pilot study suggests that integrating an online management system with a carefully crafted clinical algorithm positively influences early physical activity in stroke patients, potentially enhancing their overall quality of life.

**Keywords:** Stroke Rehabilitation; Online Algorithm; Physical Activity; Quasi-Experimental Design; Statistical Analysis

## Development of Microemulsion Based Drug Delivery of Diacerein to Improve Bioavailability

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### Abstract

**Background:** Diacerein is an anti-rheumatic medication that has shown potential in alleviating symptoms of rheumatoid arthritis (RA). However, due to the anthraquinone ring structure of the drug, oral administration often leads to significant systemic side effects. This research aims to enhance the solubility and skin permeability of Diacerein by developing a microemulsion-based formulation for topical application. **Materials and Procedures:** Given the adequate solubilizing capacity of microemulsion systems, castor oil was selected as the oil phase. PEG 600 was used as the cosurfactant, and Span 80 served as the surfactant, both in combination with castor oil to create the phase diagrams. The pseudo-ternary phase diagrams were developed using the water titration method. Mixtures of surfactant and cosurfactant (Smix) at ratios of 1:1, 2:1, 3:1, and 4:1 were combined with oil at ambient temperature. The oil-to-Smix ratios were varied as 9:1, 8:2, 7:3, 6:4, 5:5, 4:6, 3:7, 2:8, and 1:9 (v/v). A range of distinct microemulsion formulations was created and refined using central composite design, where the dependent variables were particle size and percentage of drug content. Optimization of the microemulsion was performed using a 2-level factorial design. Based on the analysis, the optimal microemulsion formulation was selected, and various pharmaceutical parameters, including zeta potential, viscosity, pH, refractive index, and percentage of drug release, were evaluated. **Results:** The Quality by Design-optimized batch F7 of the microemulsion formulation was finalized and evaluated for various pharmaceutical parameters. Diacerein was successfully incorporated into the microemulsion, achieving a 90% release over 4 hours.

**Keywords:** Diacerein; Microemulsion; Pseudo-Ternary Phase Diagram

## The Occurrence of Self-Diagnosis and Its Impact on Mental Health Among Students in Mindanao State University – Iligan Institute of Technology

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### Abstract

This study aims to identify and assess the prevalence of self-diagnosis and its impact on mental health among students at Mindanao State University – Iligan Institute of Technology (MSU-IIT). It seeks to compare the tendencies of self-diagnosis between nursing and non-nursing students at MSU-IIT. Additionally, the study examines the significant relationship between the respondents' sociodemographic profiles and the psychological effects of self-diagnosis, focusing on cognitive, affective, behavioral, and positive outcomes. The Cyberchondria Severity Scale (CCS-15) is used to evaluate the five dimensions of cyberchondria: compulsion, distress, excessiveness, reassurance, and mistrust of medical professionals. A descriptive correlational research design was employed in this study to describe the variables and assess the natural relationships among them. The study aimed to determine the occurrence of self-diagnosis and its impact on the mental health of MSU-IIT students. Data were analyzed using descriptive statistical methods, including frequencies, percentages, and frequency distribution. A Likert scale was also incorporated into the questionnaires to measure respondents' ratings on the CCS-15 and a self-developed questionnaire. The results of the socio-demographic profile indicated that 5.9% of respondents reported a family history of mental illnesses, including anxiety, depression, nervous breakdown, insanity, and substance-induced psychotic disorder. The results of the Cyberchondria Severity Scale suggest that most respondents were severely affected by four constructs: Compulsion (66.8%), Distress (83.8%), Excessiveness (99.5%), and Reassurance (87.3%). However, the Mistrust of Medical Professionals construct (98.4%) indicates that most respondents were not affected. These findings show that respondents experience varying degrees of impact from the cyberchondria constructs. The study concludes that there is a significant relationship between self-diagnosis and its impact on students' mental health. It was found that self-diagnosis might have a positive impact on students' mental health by making them more informed about their possible conditions. Conversely, it may also negatively affect students' mental health by causing them to delay seeking professional help, believing they can diagnose themselves based on web search results.

**Keyword:** *Cyberchondria; Internet; Mental health; Self-Diagnosis*

## Demographic Characteristics and Impact of Social Media on the General Point Average of Nursing Students in Southern Philippines

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### Abstract

**Introduction:** Social media has become a valuable tool for learning and knowledge sharing. While it serves as an effective platform for educational enhancement, it can also be a source of distraction for students, potentially affecting their academic performance. This study explores nursing students' perceptions of how social media usage influences their academic performance and examines its correlation with their Grade Point Average (GPA). **Methodology:** This descriptive correlational study used the Social Media and Academic Performance of Students Questionnaire (SMAAPOS) by Peter Osharive (2015), distributed via online Google Forms. The respondents were 175 nursing students selected through purposive sampling. The data were statistically analyzed using SPSS software. **Results and Discussion:** Most respondents were aged 21-25 years, predominantly female, Roman Catholic, in their third year of the nursing program, and receiving a monthly allowance of less than 10,000 PHP. Regarding their perception of social media's influence on academic performance, 52% of respondents agreed that addiction to social networks could negatively impact academic output. However, 61.1% believed that their grades had improved despite active engagement with social media. An average mean score of 2.76 indicates that most respondents regularly rely on social media in their daily activities. A mean score of 2.68 suggests that social media is considered important for completing academic tasks. The results also indicate that men are more likely to use social media for non-academic purposes, and younger individuals are more frequent users of social media. Furthermore, the findings show no correlation between students' GPA and factors such as social network addiction and academic performance, social media exposure and academic performance, social media use and academic performance, gender-related social media usage, or age-related social media usage. **Conclusion:** Despite the potential for addiction, social media can be a valuable tool for nursing students when used responsibly, enhancing learning by utilizing the positive aspects of technology. This indicates that mindful social media usage can contribute to academic success.

**Keywords:** *Academic Performance; Nursing Students; Quality Education; Social Media*



## The Impact of Bullying on General Psychological Health, Sense of Coherence and Perceived Stress among Private Nursing Students During Clinical Placement

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### Abstract

**Background:** Bullying remains a widespread issue in the nursing profession globally, profoundly affecting the clinical learning and educational experiences of nursing students. This study examines the impact of bullying on the mental health and sense of coherence among private nursing students during their clinical placements. **Methods:** A quantitative cross-sectional survey was conducted among 331 student nurses at a private university during their clinical placements from April 2024 to June 2024. A self-administered questionnaire, adapted from previous research, was used following approval from the institutional ethics committee. **Results:** The study found that registered nurses (76.1%) and healthcare assistants (73.0%) were the primary perpetrators of bullying during clinical placements. Many nursing students reported experiencing bullying, with the most common forms being belittling or humiliating behavior (70.1%) and being shouted at or targeted by spontaneous anger/rage (58.9%). Over half of the respondents had difficulties concentrating (58.3%), although they continued to enjoy their usual daily activities (51.1%). The most significant emotions reported were nervousness and stress, along with feelings of indifference and disappointment from people they relied on. The study revealed a significant negative correlation between bullying behaviors and sense of coherence, and a positive correlation between bullying and perceived stress. Additionally, there was a positive correlation between general psychological health and perceived stress, and a negative correlation between sense of coherence and perceived stress. **Conclusion:** Overall, bullying negatively impacts nursing students' mental well-being by reducing their sense of coherence and increasing their stress levels, which adversely affects their overall psychological health. Addressing bullying in clinical settings is crucial for improving the mental well-being and educational experiences of nursing students, which can lead to better patient care and a more positive work environment in the nursing profession.

**Keywords:** Bullying; Clinical Placement; Mental Health; Nursing Student; Sense of Coherence

## Operating Room Nurses' Self-Reported Knowledge and Attitude on Perioperative Pressure Injury

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### Abstract

**Background:** Pressure injuries (PI) are a significant global concern for healthcare providers, particularly among patients who were not at risk of developing a PI before surgery but become at risk during or after surgery. This descriptive, cross-sectional study aimed to assess operating room nurses' knowledge and attitudes toward pressure injury prevention. **Methods:** This study was conducted with 221 nurses working in five operating rooms at a public hospital in Malaysia. Data were collected using the Pressure Ulcer Knowledge Assessment Tool (PuKAT) and the Attitude Towards Pressure Ulcer Prevention (APuP) instrument. The data were analyzed using parametric and nonparametric tests with the SPSS 27.0 software. Statistical significance was set at  $p < 0.05$ . **Results:** The average PuKAT score among the operating room nurses was 31.74%, while the average APuP score was 65%. No significant relationship was found between pressure ulcer knowledge and attitudes toward pressure ulcer prevention. Ethnicity, level of education, and job position were associated with pressure ulcer knowledge, whereas no significant association was found between the respondents' characteristics and their attitudes toward pressure ulcer prevention. **Conclusion:** The findings of this study reveal a deficiency in the knowledge levels of operating room nurses, despite their generally satisfactory attitudes. Therefore, it is recommended to improve both the knowledge and attitudes of operating room nurses concerning pressure injury prevention through the implementation of effective in-service training programs.

**Keywords:** Nurses; Operating Room/Theatre; Pressure Injury/Ulcer; Prevention

## Bioactive Compound Extraction from Different Solvent Extracts of Leaf and Stem of *Centella asiatica* and Phytochemical Analysis Via LCMS

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### Abstract

*Centella asiatica* is a perennial plant that thrives in marshy areas of tropical and subtropical climates. Traditionally, this herb has been used to treat various conditions, including kidney issues, dropsy, stomach secretions, bronchitis, asthma, and dysentery. The plant is known to contain numerous bioactive components, such as asiaticoside, asiatic acid, centelloside, quercetin, kaempferol, ascorbic acid, centellasaponin, chlorogenic acid, rutin, ferulic acid, coumarin, and aspartate. This study aimed to investigate the effects of different solvent polarities on the extraction yield, phytochemical identification, and total phenolic content (TPC) of *C. asiatica* stem and leaf extracts. The solvents used were methanol, hexane, acetone, ethyl acetate, chloroform, and a chloroform-methanol mixture (1:1). The methodology involved extraction via ultrasonication using solvents of varying polarity. Total phenolic content (TPC) was determined using the Folin-Ciocalteu method, while phytochemical analysis was performed by LC-MS. Chromatographic profiles were analyzed based on accurate mass data, and the predicted compounds were annotated using the METLIN database. Results showed that the methanol leaf extract had the highest yield (20.6%) compared to the other extracts. The chloroform-methanol stem extract had the highest TPC value (23.24±0.26 mg of GAE/g of *C. asiatica* dry stem extract). LC-MS analysis of the methanolic extracts revealed a variety of phytochemicals present. The findings indicated that the phytochemical composition and extraction yield of *C. asiatica* were significantly influenced by the properties of the extraction solvents. The phytochemicals identified in these bioactive extracts could potentially be isolated in the future for use in disease treatment.

**Keywords:** *Centella Asiatica*; LCMS Analysis; Phytochemical; Solvents; Total Phenolic Content; Ultrasonicated Extraction

## Transitioning from Online to Face-to-Face Clinical Duties: Exploring the Challenges Faced by Nursing Students Post-Pandemic

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### Abstract

The resumption of face-to-face classes in Philippine educational institutions marks a substantial transition for students, faculty, and administrators alike. This study addresses the lack of data on the latest dynamics in nursing education at MSU-IIT by examining nursing students' lived experiences in the clinical learning environment during the S.Y. 2022-2023. This qualitative research explores the challenges and difficulties encountered by MSU-IIT College of Health Sciences nursing students during their post-pandemic clinical duty exposures. Twenty-three Level 3 and Level 4 nursing students, enrolled in the first semester of S.Y. 2022-2023 and currently engaged in face-to-face clinical duties, were purposively sampled for this study. Utilizing a descriptive phenomenological approach and Braun and Clarke's (2006) reflexive thematic analysis method, the study identified four main themes: Physiological Changes or Health Problems Experienced by Participants during Clinical Duty (with four subthemes), Functioning as a Nursing Student in Assigned Clinical Areas (with five subthemes), Challenges and Difficulties Encountered in the Role of Nursing Students (with four subthemes), and Coping Mechanisms Employed by Nursing Students during Clinical Duties (with four subthemes). The findings highlighted significant health issues among nursing students that may compromise patient safety during their duties. Additionally, participants reported a range of challenges in their clinical experiences, underscoring the need for interventions to help them adjust to post-pandemic conditions. Addressing these challenges is crucial not only for advancing nursing practice but also for promoting the well-being of students. This study recommends implementing targeted strategies and programs to assist nursing students in navigating these challenges, thereby fostering a supportive learning environment that enhances their clinical education.

**Keywords:** *Challenges; Clinical Duty Exposures; Health Issues Nursing Education; Patient Safety*

## Time Management Strategies and Academic Stress among the Nursing Students: A Correlational Study

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### Abstract

Effective time management is crucial for nursing students, who frequently struggle to balance demanding schedules. This study explores the relationship between time management strategies and academic stress levels among nursing students. Using a descriptive correlational research design, the study examined the profiles of 212 nursing students and the significant relationship between their time management practices and academic stress. Data were collected using Britton and Tesser's (1991) time management questionnaire. Ordinal regression analysis was used to assess the associations among students' time management strategies, socio-demographic profiles, and levels of academic stress. The results revealed a significant correlation between monthly income and academic stress ( $p = .018$ ), indicating that financial factors can influence stress levels. Other variables, such as age, previous academic load, number of family members, gender, and type of residence, did not show significant associations with academic stress. Notably, time attitudes were found to significantly impact academic stress ( $p = .004$ ), suggesting that students who prioritize their time may experience increased pressure to excel academically. However, short-term and long-term planning were not significant predictors. Furthermore, students who do not consistently practice effective time management may face academic difficulties and find it challenging to improve their performance, potentially compromising patient safety. These findings provide valuable insights into how time management strategies relate to academic stress among nursing students. By identifying factors that contribute to stress, educators and students can develop targeted interventions and support systems to enhance time management skills and reduce academic stress. The results set the stage for future research and the implementation of effective strategies to support nursing students in managing time and stress more effectively, ultimately promoting academic success and improving clinical performance, which is crucial for patient safety.

**Keywords:** *Academic Stress; Academic Success; Nursing Students; Patient Safety; Time Management*



## Clinical Nursing Instructors' Lived Experience of Managing Students' Errors in Clinical Exposure

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### Abstract

Errors during clinical exposures by nursing students are likely due to their inexperience and lack of knowledge. The presence of clinical nursing instructors is crucial—not only for their expertise and clinical performance but also for helping students acquire clinical competence and manage their errors. This study aims to explore the experiences of clinical nursing instructors in managing the clinical errors made by nursing students. A descriptive phenomenological approach was used, with participants selected through purposive sampling. Data were analyzed using Colaizzi's seven-stage method. The researchers derived four main themes, and these are: errors encountered (medication errors, patient identification errors, charting errors), management styles (corrective measures, disciplinary actions), psychological effects (burst of emotions, blaming self, gained insights), and preventive measures (concept learning and skills laboratory, orientation). To address the situation, they first identified the error, followed by executing actions to provide patient safety. These errors could have a traumatic effect internally, such as burst of emotions and blaming self, which resulted in being wary of their students' actions and strictness in the clinical rotations that followed. Preventing such incidents is critical for patient safety as well as the well-being of not only the students but also the instructors and staff nurses. During clinical affiliations, students are considered part of the healthcare team. Therefore, it is recommended that healthcare providers observe and address the common errors made by students in clinical settings to ensure patient safety and mitigate potential malpractice liability. Future research should focus on examining the experiences of clinical nursing instructors in managing students' errors during clinical exposure, with a more detailed exploration of the psychological effects. Additionally, researchers could investigate the effectiveness of different mentoring styles employed by clinical nursing instructors on student learning. It is also recommended that administrators of nursing education programs enhance the training of clinical instructors in mentoring and student management during clinical affiliations to promote patient safety practices among student nurses. Capacity-building programs for clinical instructors could be developed to improve their confidence and effectiveness in managing students in clinical settings.

**Keywords:** *Clinical Errors; Clinical Nursing Instructors; Management. Nursing Students; Patient Safety; Student Errors*

## Exploring the Nexus of Nursing Competency Development: Insights from Input-Process-Output Dynamics in Education

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### Abstract

Nursing competency involves a complex integration of knowledge, professional judgment, skills, and attitudes. A competent nurse ensures the delivery of safe and high-quality care. Assessing students' competence based on clear professional standards is crucial for ensuring that they provide safe nursing care, requiring a high level of proficiency. This study examines nursing competency by considering the input-process-output model within the academic setting. It explores how the output variable—core competencies expected from nursing students—is influenced by input and process variables. The input variables in this study include institutional facilities and faculty, while the curriculum design serves as the process variable. The output variable encompasses the core competencies expected from nursing students, including safe and quality nursing care, collaboration and teamwork, and ethico-legal responsibility. This study establishes that the General Systems Theory, which considers input-process-output, explains how different variables affect one another. The findings reveal that the input variable in assessing nursing competency does not influence the output variable. However, the process variable does impact the output. The core competencies, reflecting the essential nursing abilities required for client care, are significantly affected by the outcome-based education method. The achievement of nursing core competencies is supported by the process and approach used in curriculum implementation, particularly outcome-based education. The core competency model employed by the nursing program focuses on student performance and outcome achievement, helping students perform their nursing duties competently and thereby improving patient outcomes.

**Keywords:** *Core Competency, Input-Process-Output, Nursing*

## The Relationship Between Body Mass Index, Sleep Quality, and Quality of Life Among Infertile Couples

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### Abstract

**Background:** Infertility can significantly affect various aspects of a couple's life, including body mass index (BMI), sleep quality, and overall quality of life. This cross-sectional study aimed to investigate the relationship between BMI, sleep quality, and quality of life among infertile couples. **Methods:** Conducted at the Obstetrics & Gynaecology Clinic, Hospital Al-Sultan Abdullah, UiTM Puncak Alam, Selangor, the study involved 126 participants (63 couples). Body mass index (BMI), sleep quality (measured using the Pittsburgh Sleep Quality Index, PSQI), and quality of life (measured using the Fertility Quality of Life, FertiQoL) were assessed. Data were analyzed using IBM SPSS version 29. **Results:** Poor sleep quality (PSQI score >5) was observed in 10.3% of participants, while 89.7% had good sleep quality (PSQI score <5). The mean BMI was  $27.52 \pm 6.48$ . Pearson correlation analysis revealed a weak positive correlation between BMI and sleep quality ( $r = 0.168$ ,  $p = 0.060$ ), and a negligible correlation between BMI and quality of life ( $r = 0.003$ ,  $p = 0.974$ ). **Conclusion:** These findings suggest that while BMI does not significantly impact the quality of life among infertile couples, sleep quality may have a minor influence. By addressing sleep quality issues and understanding their relationship with BMI and overall health, nurses can help improve the quality of life for patients, particularly those dealing with infertility and related concerns.

**Keywords:** Body Mass Index (BMI); Cross-sectional Study; Infertile Couples; Quality of Life; Sleep Quality

## Usage of Social Media and Extent on Multi-Dimensional Body Self-Relations among Undergraduate Students of a State University in Southern Philippines

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### Abstract

**Background:** Social media usage has become a major predictor of behavior, with deficits potentially having significant effects on physical and psychosocial functioning, health, and overall well-being. Social media often focuses on appearance and promotes unrealistic and impractical beauty standards through its messages and content. It serves as a powerful force that highlights the idealized beauty standards prevalent in the social environment. **Objective:** The study aimed to determine the relationship between social media usage and the extent of multidimensional body self-relations among undergraduate students at a state university in Southern Philippines. **Method:** A descriptive correlational design was employed with 385 undergraduate students from a state university for the academic year 2022-2023. Participants were selected using a stratified purposive sampling technique. The extent of multidimensional body self-relations was measured using Cash's Multidimensional Body Self Relations Questionnaire - Appearance Scale (2018). Additional data were collected on the respondents' demographic profiles and social media usage. The study adhered to strict ethical protocols and was approved by the college ethics committee under approval number E-2023-34. **Results:** The study's findings revealed that the use of social media platforms, specifically Discord, and interests in topics such as business and economy, fashion, food and nutrition, health and beauty, medical topics, and shopping were significantly associated with students' body self-relations. Additionally, the demographic profile, religious affiliation, and college were found to have a statistically significant impact on the extent of multidimensional body self-relations. **Conclusion:** The study revealed that undergraduate students at a state university in Southern Philippines exhibited a neutral level of multidimensional body self-relations, indicating neither high nor low levels. Social media usage was found to have a significant relationship with the extent of multidimensional body self-relations. Additionally, demographic characteristics were significantly related to the extent of multidimensional body self-relations.

**Keywords:** *Multidimensional Body Self-Relations, Social Media, Undergraduate Students*

## Day-Night Cycle of the Night Owl at the Lens of an Angel

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### Abstract

**Background:** The nursing workforce is the backbone of today's demanding healthcare industry. Significant changes in 21st-century nursing are crucial for providing safe, high-quality care to individuals and society. The challenges nurses face in meeting contemporary health needs have led to evolving roles, including those of nurses who work night shifts or 'night owls'. **Objectives:** This study explored, conceptualized, and examined the experiences of day-night shift nurses—referred to as 'night owls'. **Methods:** A descriptive qualitative research design, specifically narrative inquiry, was employed for this study. Participants included 14 staff nurses from two different healthcare facilities in Southern Philippines. The study adhered to strict ethical protocols in both academic and healthcare settings. Informed consent was obtained from participants, who agreed to face-to-face, one-on-one in-depth audio-recorded interviews lasting 30-45 minutes. These interviews aimed to capture their experiences as day-night shift nurses, or 'night owls.' The data were processed using verbatim transcription, translation into English, back-translation, dialogic-thematic narrative analysis, and ordered chronological methods. The iterative process involved retelling stories and using metaphors to create vivid imagery, which helps convey deeper meanings and emotions, enhancing understanding. Reflexivity was emphasized to ensure transparency, rigor, and ethical conduct throughout the research process, thereby enhancing the credibility and trustworthiness of the study's findings. **Results:** Three (3) emergent themes and ten (10) subthemes were formulated based on the seven-step narrative analyses, (Colorado State University; EDRM:600): Theme 1) Nurturance against Mountain Ridges and Boulders: 1.1 Superior senses and ferocity 1.2 Nurturance and safety of the resistant young: A Priority 1.3 Eminence 1.4 Distinction in inventory and scrutiny. Theme 2: Biological Cataclysm: An Ultimatum: 2.1 Vigilance 2.2 Night owls like larks in a cage. Theme 3: A Parliament of the Night Owls 3.1 Proportion risks 3.2 Circadian rhythm 3.3 Chronotype trials 3.4 Conscriptio model 3.5. Propensity Pattern Defiance. There were stories retold 1) Nature and Nurture 2) Divergent Circadian Cycles and 3) The Nest. **Conclusion:** The thematic analysis of the challenges faced by day-night shift nurses—referred to as 'night owls'—revealed insights into their realities, as expressed through the emergent themes and subthemes. While generalizability cannot be established, the formulated assumptions were confirmed. The metaphor of the nurse as an angel in the sick room highlights the idealized image of a divine messenger and protector, reflecting the complex role of nurses who navigate health and environmental challenges. This metaphor emphasizes the nurses' role in managing the difficulties faced by 'night owls,' striving to thrive amidst the challenges they encounter.

**Keywords:** Day-Night Shift Nurses; Night Owls; Nursing Challenges



## Classroom Observation Case Studies: Exploring the Key Elements for Teachers to Prepare and Develop an Effective Flipped Classroom

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### **Abstract**

In a flipped classroom, teachers should focus on teaching ability, refining content, and using appropriate teaching strategies. This observational study examined three flipped classrooms with different course content, assessing the alignment between teacher and student throughout the process. The study synthesized and analyzed the overall process—including subject matter, instructional purpose, student understanding, content knowledge, feedback, and instructional strategies—based on the six elements of Pedagogical Content Knowledge (PCK) related to effectiveness and instructional strategies. The results highlighted the importance of creating a memorable and effective flipped classroom experience through strong teacher guidance, effective pacing, and the rational use of instructional strategies. The study also emphasized the need for educators to explore how to better integrate teacher dynamism with student characteristics in the classroom to enhance learning outcomes.

**Keywords:** *Classroom Observation; Development; Flipped Classroom; Teacher Training*

## Determinants of Preeclampsia in Bhayangkara Hospital Dumai, Indonesia: A Case-Control Study

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### Abstract

Mounting evidence indicates that preeclampsia affects 3-8% of pregnant women and can lead to complications such as intrauterine growth restriction and low birth weight. In Indonesia, the maternal mortality rate stands at 189 per 100,000 live births, with 128,273 cases of preeclampsia reported annually (accounting for 53% of the total). Research conducted at Bhayangkara Hospital in Dumai, Riau Province, recorded 52 cases of preeclampsia between 2018 and 2022. In light of this, the present study aims to identify the determinants of preeclampsia, including age, parity, and Body Mass Index (BMI) among pregnant women beyond 20 weeks of gestation. A case-control study was conducted with 52 respondents selected through purposive sampling. The results revealed that preeclampsia was significantly associated with advanced maternal age (over 35 years), grand multiparity, and obesity ( $p < 0.05$ ). Logistic regression analysis indicated that BMI ( $p = 0.016$ ) and parity ( $p = 0.002$ ) were significant predictors of preeclampsia. The study found that being overweight increases the risk of preeclampsia due to elevated blood pressure and cardiac stress, while nulliparity also elevates this risk, although multiparity may reduce it. The study concludes that high BMI and parity significantly impact the occurrence of preeclampsia at Bhayangkara Hospital Dumai. These findings are expected to inform strategies for the prevention and management of preeclampsia and contribute to improving maternal and child health in Riau Province through intensive screening, education, and nutritional counseling aimed at controlling weight during pregnancy.

**Keywords:** Age; Body Mass Index; Case-Control Study; Parity; Preeclampsia

## Analysis of the Application of PDCA Cycle in Nursing Management of Sterilized Supply Room and Its Impact on Reducing the Infection Rate of Surgical Instruments

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### Abstract

**Objective:** To discuss the application of the PDCA cycle in nursing management of the sterilization supply room and its impact on reducing the infection rate of surgical instruments. **Methods:** A total of 446 patients who underwent surgical treatment at our hospital from January 2020 to December 2020 were selected for the study and randomly divided into two groups, with 223 patients in each group. The control group received conventional sterilization supply room nursing management during their surgical treatment, while the study group implemented the PDCA management cycle model in the nursing management of the sterilization supply room. The incidence of surgical instrument infections between the two groups was then compared. **Results:** The study group had higher nursing care satisfaction compared to the control group ( $P < 0.05$ ). The nursing care quality management scores in the study group were also higher than those in the control group ( $P < 0.05$ ). Additionally, the infection rate of surgical instruments in the study group was lower than in the control group ( $P < 0.05$ ). **Conclusion:** Implementing the PDCA management cycle model in the nursing care of the sterilization supply room can continuously improve the quality of care and reduce the infection rate of surgical instruments. This approach is valuable and worth applying and promoting.

**Keywords:** Nursing Management; PDCA; Sterilized Supply Room; Surgical Instrument Infection

## Benefits of Caregiver Preparedness to Maintain Quality of Life in Caring for Stroke Patients: Literature Review

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### Abstract

**Background:** Stroke leads to neurological disorders that can significantly impact quality of life, which encompasses mental, physical, and social well-being. Achieving a good quality of life requires the involvement of both family members and healthcare professionals. Caregiver preparedness for stroke patients involves preparing the patient for treatment and supporting their recovery and improvement in health status. **Objective:** The aim of this literature review is to assess the benefits of caregiver preparedness in maintaining the quality of life for stroke patients. **Methods:** The research process involved selecting studies based on the year of publication and availability of the full text. Articles and journals deemed less relevant were excluded. A total of 10 relevant articles were obtained from Google Scholar using the keywords: Benefits, Caregiver Preparedness, Quality of Life, Caring, and Stroke. **Results:** After reviewing the selected articles, it was found that caregiver preparedness positively impacts the ability of families to care for stroke patients, thereby improving both the caregivers' and the patients' quality of life. The research highlighted the moderating role of caregiver preparedness, the importance of togetherness, the benefits for family caregivers, the burden and experiences of caregivers, the effectiveness of dyadic psychoeducational interventions, and the success of caregiver support in caring for stroke patients. However, one study revealed a negative aspect, noting that caregiver fatigue, caused by the high demands of stroke patients, can lead to an increased burden and a decline in caregivers' quality of life. Therefore, caregiver preparedness is essential in caring for stroke patients, as it aids in improving rehabilitation efforts, preventing complications, and ensuring adherence to medication and routine check-ups. **Conclusion:** Enhancing the quality of life for caregivers of stroke patients enables them to better support rehabilitation activities, prevent disease complications, and ensure adherence to medication and routine check-ups for stroke patients.

**Keywords:** Caregiver Preparedness; Patient; Quality of Life; Stroke

## Interventions to Improve Medication Adherence in Hypertensive Patients: A Bibliometric Analysis

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### Abstract

**Background:** Hypertension is the leading cause of cardiovascular disease, stroke, kidney disease, and death worldwide. Medication adherence is crucial for controlling blood pressure in individuals with hypertension. Therefore, it is essential to implement interventions that enhance adherence to hypertension treatment. **Objective:** The purpose of this study is to identify interventions that improve adherence to hypertension treatment by analyzing network visualization, overlay visualization, and density visualization on relevant topics using bibliometric analysis. **Methods:** The data sources for this study were obtained through online searches on <https://app.dimensions.ai/>. The literature search followed the stages outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flowchart. The search was limited to publications from 2022 to 2024, focusing on the fields of health sciences, nursing, public health, health services, and systems. The type of publication was also a criterion for inclusion in the study. Data were analyzed using VOSviewer. **Results:** To enhance adherence to hypertension treatment, healthcare providers should focus on improving patients' literacy and knowledge about their condition. Implementing hypertension management interventions using technologies such as mHealth, telemedicine/telehealth, eHealth, text messaging, and WeChat has proven effective in increasing medication adherence. Additionally, providing motivation and psychological support can further improve adherence. Education and counseling from pharmacists, nurses, physicians, community health workers, and the use of telephones are also beneficial for improving medication adherence. Involving family members can further support the improvement of adherence to antihypertensive medications. **Conclusion:** After identifying clusters, the types of interventions that can improve hypertension treatment adherence include patient education, the use of technology, psychological approaches, health professional interventions, and family participation.

**Keywords:** *Bibliometric; Hypertension; Interventions to Improve; Medication Adherenc*



## Complementary Therapy Intervention in Lowering Blood Pressure in Hypertension Patients: A Bibliometric Analysis

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### Abstract

**Background:** Hypertension is characterized by elevated systolic and diastolic blood pressure above 120/80 mmHg, which can lead to various complications and health problems. In some countries, complementary therapies such as acupressure, cupping therapy, and herbal medicine are commonly used as alternative methods to lower blood pressure in hypertensive patients. **Objective:** The purpose of this study is to identify complementary therapy interventions for reducing blood pressure in hypertensive patients by analyzing network visualization, overlay visualization, and density visualization of relevant topics using bibliometric analysis. **Methods:** Bibliometrics analysis used in this study. Records are identified through database searches <https://app.dimensions.ai/> further selected by PRISMA flowchart. Paper restricted in publications years 2015-2024, focus in the field of health sciences, biomedical and clinical sciences, nursing, clinical sciences and publication type is article. Data were analysed using VOSviewer. **Results:** The identification results found that complementary therapies can reduce blood pressure, namely yoga, acupuncture, music therapy, cupping therapy, aromatherapy and herbs. Yoga, music therapy, massage therapy and aromatherapy make the body of hypertensive patients experience relaxation so that it can reduce blood pressure due to relaxation and release of endorphins, as well as herbs and cupping which have a vasodilator effect on blood vessels so that the blood pressure of hypertensive patients decreases. **Conclusion:** Complementary therapies are effective in reducing blood pressure in hypertensive patients such as yoga, acupuncture, music therapy, cupping therapy, aromatherapy and herbs.

**Keywords:** *Bibliometric; Complementary Therapy; Hypertension*

## Development of Reflexology on Nausea and Vomiting: A Literature Review

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### Abstract

**Objective:** This study aims to develop a reflexology program to support the care of gastroenteritis patients by reducing nausea and vomiting. The study was conducted in two phases: a literature review and the development of the reflexology program. The literature review analyzed current massage techniques by examining related problems, theories, and supporting evidence. **Methods:** Eight published studies in English were reviewed. Massage can be performed for durations ranging from 10 minutes to 60 minutes, over a period of three to six weeks, and can be applied to various body areas. The review found that the soft stroke/effleurage technique is the most effective method and is particularly suitable for patients experiencing nausea and vomiting. Additionally, foot massage has been identified as a viable modality for reducing nausea and vomiting. **Results:** We developed a foot massage program specifically for patients with gastroenteritis. The program consists of three sessions: 1) an education session, 2) a preparation session, and 3) a foot massage session. In the education session, patients receive brief information about the definition of foot massage, its benefits, and any contraindications. During the preparation phase, the feet are soaked and warmed up. **Conclusion:** Subsequently, the foot massage is applied and should last for 30 minutes. Further research is recommended to evaluate the effectiveness of this foot massage program in reducing nausea and vomiting in gastroenteritis patients, including studies conducted in various countries, such as Indonesia.

**Keywords:** Gastroenteritis; Nausea and Vomiting; Reflexiology

## Perception as a Factor in Proportionality: How it Affects Chinese University Students' Evaluations of their Social, Emotional, and Academic Conduct

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### Abstract

Several studies, most of which employed quantitative methodologies, have explored the perspectives of both children with special educational needs (SEN) and those without SEN regarding inclusion. This research aims to investigate the relevance of students' sentiments, social connections, and intellectual concepts through qualitative interviews, in order to gain a deeper understanding of how students perceive their own inclusion. As a result, Mayring's Qualitative Content Analysis was employed for data analysis, following data collection through the photovoice method and semi-structured interviews. The interviews with six students with special needs and three students without special needs revealed that, regarding social integration in the classroom, students with special needs tend to have positive interactions with their classmates and highly value school spaces (such as the schoolyard) where they can communicate and interact. Additionally, students rely significantly on their teachers for support with both academic and personal issues. The viewpoints of several students suggest that their academic self-concept varies across different classrooms, according to their own reports. There was no significant difference in perception between students with special educational needs and those without. Regarding emotional inclusiveness, most student comments focused on strategies for self-regulation and adaptability.

**Keywords:** *Academic Conduct; Chinese University; Proportionality; Social, Emotional; Students' Evaluations*

## The Relationship of Self Efficacy with the Quality of Life of Breast Cancer Patients in the Inpatient Room of Mitra Plumbon Hospital Cirebon Indonesia

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### Abstract

Cancer is a group of diseases characterized by the abnormal and uncontrolled growth of single cells, which can develop into malignant tumors that destroy and damage healthy cells or tissues. In nursing interventions for breast cancer patients, self-efficacy focuses on the individual's belief in their ability to manage, plan, and modify their behavior to achieve a better quality of life. This study employs a quantitative research approach. The population consists of 73 breast cancer patients receiving treatment at Mitra Plumbon Hospital. The sampling technique used is purposive sampling. The sample for this study consisted of 39 patients with Stage 1 and Stage 2 breast cancer receiving treatment at Mitra Plumbon Hospital. The research instrument used to measure variable values was a questionnaire. Data analysis was performed using the Spearman rank correlation method, a nonparametric statistical technique. The research was conducted from June to July 2022, within the inpatient ward of Mitra Plumbon Hospital. The research conducted at Mitra Plumbon Hospital revealed that the self-efficacy among breast cancer patients was generally high, with 32 respondents demonstrating good self-efficacy, 6 having sufficient self-efficacy, and 1 exhibiting low self-efficacy. The distribution of respondent data in the inpatient ward in 2022 showed that 34 patients had a high quality of life, 4 had a moderate quality of life, and 1 had a low quality of life. Statistical analysis using the Spearman rank correlation test indicated a significant relationship between self-efficacy and quality of life, with a  $p$ -value of 0.001 ( $p < 0.005$ ). The researchers hope this study will serve as a reference for future research on the relationship between self-efficacy and quality of life in breast cancer patients.

**Keywords:** Breast Cancer Patients; Quality of Life; Self-Efficacy

## Nursing Interventions to Improve the Quality of Life of Stroke Patients: A Bibliometric Analysis

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### Abstract

**Background:** Stroke continues to be one of the leading causes of death and disability worldwide. Nurses play a crucial role in the care of stroke patients, addressing various aspects from medical treatment to emotional support, as well as educating patients and their families to enhance the patient's quality of life. Future research should focus on identifying trends and innovations in nursing interventions to further improve the quality of life for stroke patients. **Purpose:** The purpose of the study was to explore trends in the number of publications, and to analyze network visualization, overlay visualization, and density visualization on the topic of nursing interventions aimed at improving the quality of life for stroke patients through bibliometric analysis. **Methods:** Bibliometric analysis was used in this study. Records were identified through database searches on <https://app.dimensions.ai/> and further selected according to the PRISMA flowchart. The papers were restricted to publications from 2015 to 2024, focusing on the fields of nursing, health sciences, public health, and clinical sciences, with articles as the publication type. Data were analyzed using VOSviewer, and the analysis was reviewed based on co-occurrence and co-authors. **Results:** A search for publications related to nursing interventions to improve the quality of life in stroke patients identified 349,697 articles. After applying the specified criteria, 7,638 articles were selected. The peak in publications on this topic occurred in 2023, while the lowest number was in 2020. Overall, the trend in research on nursing interventions for stroke patients is increasing. This research is conducted not only within the fields of nursing, public health, and medicine but also across other disciplines such as psychology, allied health, rehabilitation, human society, midwifery, and biomedical and clinical sciences. Density visualization indicates that research on stroke survivors has predominantly focused on their relationships with anxiety, behavior, fatigue, resilience, and emotional distress. In contrast, areas of research that are of growing interest but remain relatively underexplored include self-efficacy, loneliness, discharge, care burden, spiritual care, transitional care, and psychological distress. **Conclusion:** The topic of nursing interventions to improve the quality of life in stroke patients is one that warrants further development. Future researchers are encouraged to explore themes within the lower categories of visualization to identify novel areas for study. The primary goal of these interventions is to enhance the quality of life for stroke survivors by optimizing function, reducing disability, and providing improved emotional and social support.

**Keywords:** *Bibliometric; Nursing Intervention; Quality of Life; Stroke*



## Investigating the Barriers and Facilitators to Establishing Specialized Physical Therapy Services in Pakistan: Pilot Study

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### Abstract

**Objective:** The objectives of this pilot study were to evaluate current practice patterns among physical therapists in Pakistan concerning the availability of equipment and modalities across various clinical settings. **Methods:** A cross-sectional survey was conducted with a sample size of 50 physical therapists, selected using stratified random sampling to include different geographical locations and settings in healthcare. The survey questions pertained to equipment types, frequency of use, and resource availability for clinical practice. Descriptive statistics were used to analyze the data, focusing on differences between public, private, and teaching hospitals at the national level. **Results:** The study revealed significant disparities in equipment availability and utilization across different healthcare facilities. Advanced modalities, such as ultrasound and laser therapy, were available at 85% of private clinics but were less common in teaching hospitals (60%) and public hospitals (30%). Electrotherapy devices were the most frequently used equipment across all settings, with 92% of respondents reporting regular use. However, 68% of physical therapists in public hospitals, especially in rural areas or provinces with limited resources, reported that their equipment was insufficient, citing issues such as outdated technology and lack of maintenance. In contrast, only a quarter of respondents from private clinics reported similar concerns. Additionally, the study identified an unmet need for specialized manual therapy and advanced rehabilitation tools, which were available to only 40% of respondents. **Conclusion:** The findings of this pilot study highlight the necessity for targeted interventions to address inequities in the availability of life-saving equipment across various healthcare settings in Pakistan. The results indicate that these challenges are felt more acutely in public hospitals, with negative implications for patient care. These findings can serve as foundational data for larger-scale studies and policy changes aimed at strengthening infrastructure and resources for physical therapists in Pakistan. Further research with a larger sample size is recommended to explore these trends in more detail and to develop comprehensive strategies for improving clinical practice in the country.

**Keywords:** *Clinical Practice Patterns; Equipment Availability; Health Disparities; Pakistan Physical Therapy; Rehabilitation Services; Resource Adequacy*

## The Effect of Self Management Education Hypertension on Blood Pressure at the Jumapolo Public Health Center in Karanganyar

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### Abstract

Hypertension, often referred to as a "silent killer," is one of the leading causes of death and morbidity worldwide. A National Survey conducted by the Ministry of Health in 2018 revealed that the prevalence of hypertension in Indonesia had risen to 34.1%, affecting over 70 million people. In Karanganyar Regency, the number of individuals aged 15 and older with hypertension increased by 62.87% from 2021, rising from 119,085 to 154,812 in 2022. Health services saw a corresponding increase in demand. The purpose of this study was to evaluate the impact of hypertension self-management education on blood pressure at the Jumapolo Karanganyar Health Center. The research employed a pre-post control group design with purposive sampling, involving 100 respondents who participated. An independent and dependent T-test was used to analyze the data. The results demonstrated a significant effect on self-management ( $p = 0.00$ , with a 16.27-point increase), indicating that hypertension self-management education at the Jumapolo Karanganyar Health Center positively impacted blood pressure. This suggests that hypertension self-management education is an effective nursing intervention for improving blood pressure management in hypertensive patients. Future research should explore the use of digital-based self-management approaches to enhance hypertension management.

**Keywords:** *Blood Pressure; Hypertension; Self-Management Education*

## Review of the Actionable Strategies for Improving the Hemoglobin Levels among Adolescent Females

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### Abstract

Anemia in adolescent females disrupts their health and nutritional status, increasing the likelihood of pregnancy and possibly causing stunting. There is a robust and multifaceted correlation between stunting in children and maternal anemia. Stunting in children can also be avoided if adolescent females with anemia receive appropriate treatment and have sufficient hemoglobin levels when they become pregnant. Children who are born stunted are more likely to do so if adolescent females suffer from anemia before becoming pregnant for a number of related reasons. Adolescent female anemia, which is frequently brought on by iron deficiency, results in a number of health issues that affect both the mother and the fetus. The method used in this review of literature begins with selecting a topic, and then determining keywords to search for journals through several databases, including others such as PubMed, Google Scholar, JSTOR, Scopus, and Web of Science, to find a comprehensive set of scholarly articles. Based on some articles, it was found that strategic prevention, adherence to iron tablet consumption, and health services and access are important components in fighting anemia, especially in populations such as adolescent girls who are at high risk. Strategic prevention involves implementing planned steps to reduce the incidence and impact of anemia. This approach includes public health campaigns, educational programs, and policy initiatives. Adherence to the consumption of iron tablets is a fundamental aspect of the prevention of anemia; the success of this approach depends on ensuring that the individual adheres to the prescribed regimen. Health services and access are important components that support strategic prevention and compliance with iron tablet consumption. Effective health services provide the infrastructure necessary to implement preventive interventions and ensure that every individual has access to essential care.

**Keywords:** *Adolescent Female; Anemia; Health Service; Iron Tablet*

## Contextual Teaching and Learning Model Approach Using Smartphone Application for Blood Sugar Levels and Self-care in Type - 2 Diabetes Mellitus Patient

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### Abstract

**Background:** Type-2 Diabetes Mellitus (T2DM) is an emergency problem that can cause death and disability worldwide. Using Contextual Teaching and Learning (CTL) model, smartphone applications can be an innovative solution for reducing blood sugar levels and improving self-care. This research aims to analyse the effectiveness of smartphone applications for blood sugar levels and self-care in T2DM patients with the CTL model. **Methods:** This research used the pre-test and post-test control group design approach from October 02, 2023 to January 02, 2024. Research place in the Nine Public Health Center, Kediri City, Indonesia. Data Analysis using Paired T-test. Sample measurement can be used in the G-Power formula with a power analysis type of effect size of 0.5,  $\alpha$  err prob 0.04, and power (0.95) resulting in a minimum sample of 105 respondents. To avoid type-2 errors, the sample size needs to be increased by 25%. Thus, the total sample in this study was 131 intervention groups and 131 control groups. The intervention group was given a smartphone application, and the control group was given a booklet. Inclusion criteria, namely patients had to own and operate a smartphone, be willing to take part in the study for three months, be literate, suffer from type - 2 diabetes mellitus, have fasting blood sugar of more than 126 mg/dl, between 36 - 65 years old, using insulin injections, and take diabetes mellitus medication. **Results:** The Paired T-test blood sugar levels showed a P-value of 0.000. The mean pre-test and post-test blood sugar levels after being given a smartphone application with the CTL model was 51.30 and the mean pre-test and post-test after being given a booklet was 47.45. The Paired T-test self-care showed a P-value of 0.000. The mean pre-test and post-test self-care after being given a smartphone application with the CTL model was 38.50 and the mean pre-test and post-test after being given a booklet was 15.43. **Conclusion:** There was a difference between the mean blood glucose levels and self-care, pre-test, and post-test after being given a smartphone application with the CTL model and booklet for three months at the nine Public Health Centers in Kediri City, Indonesia.

**Keywords:** Blood Sugar Levels; Contextual Teaching and Learning; Self-Care; Smartphone Application; Type - 2 Diabetes Mellitus

## Performance Verification of BECKMAN COULTER AU5821 Automatic Biochemistry Analyzer

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### Abstract

**Objective:** To ensure the accuracy of laboratory test results, a performance validation of the Beckman Coulter Model AU5821 Automated Biochemistry Analyzer was conducted to verify the reliability of the manufacturer's stated performance specifications for the system. **Methods:** Routine tests were performed using the BECKMAN COULTER AU5821 Automatic Biochemistry Analyzer in accordance with CNAS-GL037:2019 'Guidelines for Performance Verification of Quantitative Clinical Chemistry Test Procedures' and WS/T 407-2012. The accuracy, precision, reportable intervals, linear ranges, and reference ranges were evaluated for 22 analytes, including potassium, sodium, chloride, total protein, albumin, total bilirubin, alanine aminotransferase, aspartate aminotransferase, alkaline phosphatase, gamma-glutamyl transferase, creatine kinase, urea nitrogen, creatinine, uric acid, glucose, triglycerides, cholesterol, HDL, LDL, calcium, phosphorus, and magnesium. **Results:** The precision and accuracy of the 22 routine biochemical test items determined by the testing system meet the judgment standards outlined in the WS/T 407-2012 document. The linear ranges, reportable ranges, reference ranges, and specifications for the routine test items are consistent with those provided by the manufacturer. **Conclusion:** The BECKMAN COULTER AU5821 fully automated biochemistry analyzer meets the performance targets for quality objectives and is capable of performing routine clinical sample testing.

**Keywords:** Correctness; Linear Ranges; Performance Validation; Precision; Reference Ranges; Reportable Intervals

## Exploring the Mediating Effects of Workplace Satisfaction, Affective Commitment and Organization Support on Turnover Intention Among Senior Professional in Guangdong Province, China

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### Abstract

In recent years, publicly traded Chinese firms have faced challenges in achieving profitability while still meeting fundamental operational and growth goals, all caused by the government's low investment levels. The comparatively low levels of government investment and the necessity to produce enough money are two of the aspects that contribute to this. The medical staff's technological expertise, customer service chops, and access to a wide range of exceptional senior experts from different domains are all factors in this. This can only happen if the doctors and nurses on staff possess these two qualities. The firm's clinical position was strengthened by its demonstration of technological and scientific expertise in attaining these aims. They ensure the quality and attractiveness of the company's products as a result. Regardless, these experts were in high demand because of China's massive healthcare sector and the abundance of other businesses in the region. Considering these facts, human resource management faces a formidable obstacle in its pursuit of highly sought-after senior professionals: how to boost job satisfaction and encourage emotional investment in the workplace. Inefficient productivity cuts into distribution companies' bottom lines by billions of dollars annually. It is critical to comprehend what drives people to meet metric-based goals to enhance overall performance. Based on the motivation-hygiene theory, this correlational study aimed to find out how factors like job satisfaction, emotional investment in one's work, and organisational support correlated with workers' intentions to leave their current positions in the distribution industry.

**Keywords:** *Affective Commitment; Organisation Support; Senior Professional; Turnover Intention; Workplace Satisfaction*



## Determining the Correlation between Adolescent Attitudes and Practices in Sexual and Reproductive Health

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### Abstract

Adolescent health issues, including the spread of STDs, sexting, and contraception, are still primarily focused on sexual and reproductive health. This study aims to explore the relationship between adolescents' views and practices regarding sexual and reproductive health. A quantitative-correlation design was employed to assess the practices and attitudes of 179 high school students in Batam. Data was collected using Google Forms. Descriptive statistics revealed that the sample included 70 males and 109 females, with 42 students in grade X, 57 students in grade XI, and 79 students in grade XII. The average attitude score was 3.28 (indicating strong agreement), while the average practice score was 1.72 (indicating minimal practice). Most students had a positive attitude, with 117 agreeing and 57 strongly agreeing. In contrast, the majority of students showed negative practices, with 87 reporting 'seldom' and 73 'not practicing' at all. Crosstab analysis reveals that a higher percentage of female students, 107 (98.16%), exhibit positive attitudes compared to male students, who number 67 (95.7%), with the highest representation from grade XII at 98.73%. Female students' practices were perceived negatively (88.07%), particularly in grade XI (92.98%). The results show a significant relationship with a  $p$ -value of 0.004. Although students display good attitudes, these are not consistently reflected in their practices, indicating a need for additional support, especially for grade XI students.

**Keywords:** Attitudes; Practices; Reproductive Health

## Challenges and Resolution Strategies of Medical Artificial Intelligence on the Doctor-Patient Relationship

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### Abstract

The doctor-patient relationship is a crucial factor affecting the quality of medical services. It is built on a solid foundation of trust, empathy, and respect for patients' rights and dignity. However, in recent years, the doctor-patient relationship appears to have become strained, possibly due to a variety of factors, including the over-medicalization and over-specialization of medical practice, which have allowed the significance of technology to overshadow meaningful interpersonal interactions between doctors and patients. Globally, there are differences in the level of trust between doctors and patients. For instance, in the United States, 82.2% of patients with chronic diseases trust their physicians. In Europe, some studies have indicated that patients in Italian-speaking regions have a high level of trust in their doctors, but in French-speaking regions, the trust level is less than half. In East Asia, including Mainland China, Hong Kong, Taiwan, South Korea, and Japan, there is a general lack of trust in the doctor-patient relationship. Chinese patients have a relatively low level of trust in doctors due to insufficient communication and a lack of shared decision-making processes. In China, the doctor-patient relationship has deteriorated over the past decade, characterized by frequent incidents of verbal and physical attacks on healthcare workers, which is detrimental to the development of medical services in China. The lack of trust can lead to doubts about the treatment plans provided by doctors, reducing the patients' enthusiasm for actively participating in their treatment, potentially leading to suboptimal outcomes and negative emotions towards the professional authority of doctors.

Technology on Doctor-Patient Relationships in the Medical Field In recent years, the application of artificial intelligence technology in the medical field is gradually unfolding, with AI systems showing high accuracy in areas such as medical imaging diagnosis: AI technology can predict, prevent, or detect adverse events in healthcare at an early stage; AI technology has been successfully integrated into clinical workflows to improve medical efficiency; AI technology helps analyze patients' medical data, providing personalized diagnostic and treatment recommendations, thereby improving patients' therapeutic outcomes and experiences. The integration of artificial intelligence technology in the medical field outlines a vision for the leapfrog development of the healthcare industry and presents a new development pattern for the traditional doctor-patient relationship, specifically manifested in: improving diagnostic and treatment efficiency, enhancing patient trust; optimizing treatment plans, improving the doctor-patient relationship; intelligent health management, harmonizing doctor-patient relationships, etc. At the same time, the emergence of medical AI also faces problems such as the shift of the main body of patient trust, the weakening of doctors' responsibility for humanistic care, and an increased risk of violating patients' rights and interests. To build a harmonious doctor-patient relationship, research will combine the key measures mentioned in the "Patient Safety Special Action Plan (2023-2025)" and the "Regulations on the Clinical Application of Medical Technology" issued by the General Office of the National Health Commission of China, design a questionnaire, and investigate and analyze the "double-sided impact" of medical AI on the doctor-patient relationship. From the four aspects of improving public awareness, reshaping the leading position of medical staff, improving the supervision system for the application of AI technology, and perfecting the ethical mechanism for the application of AI technology in the medical field, a "protective net" for the doctor-patient relationship will be established to ensure the safety of medical services and enhance patient safety awareness, promoting the harmonious development of the doctor-patient relationship.

**Keywords:** Doctor-Patient Relationship; Medical and Health Care; Medical Artificial Intelligence

## An Effective of Education for Young Children in Primary Schools with Disabilities Relies on the Ability to Make Informed Decisions about the Use of Related Services

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### **Abstract**

Education for children with disability/disabilities. The present state was mapped based on studies that were previously published, as well as and other research conducted by institutions. According to the data, there has been considerable progress in this field, with new research emerging on many fronts to better understand and ultimately assist people with disabilities. The years after the international flagship of Education for All (EFA) with a rights-based approach to disability have significantly benefited the expansion of research themes and scope. Notable research interests include the promotion of learning through a variety of methods, the analysis of the interaction between psychosocial factors in development and learning, the improvement of academic performance, the impact of influential people on development, and the material development of learning resources. The data also demonstrates, however, that researchers continue to see disability as a limitation, and that there is an urgent need to switch to a capacity approach that places more emphasis on the strengths and dignity of people with disabilities. There is a dearth of studies conducted from a key vantage point that may serve as both a source of information and a catalyst for change. To remedy this deficiency, further empirical study focused on the preventive measures students with disability/disabilities take to maximise their personal, social, and academic potential is required.

**Keywords:** *Decision Making; Disabilities; Education; Young Children*

## Innovation of Prototype of Stunting Health Information System and 3D Pageflip E-module on Stunting Preventive Knowledge and Attitude in South Tangerang, Banten Province, Indonesia

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### Abstract

Globally, an analysis published by UNICEF, WHO, and the World Bank Group in 2019 reported that approximately 144 million (21.3%) children under the age of 5 experienced stunting. By 2022, this number had increased to about 148.1 million (22.3%). This study aimed to evaluate the effectiveness of health promotion using a prototype stunting health information system and a 3D pageflip e-module on knowledge and attitudes toward stunting prevention in South Tangerang. The research employed a quantitative approach with a quasi-experimental design, featuring a two-group pretest-posttest setup. A total of 106 respondents participated, divided into two groups: one using the prototype stunting health information system and the other using the 3D pageflip e-module, with each group consisting of 53 respondents. The results from the Wilcoxon test indicated a significant difference in knowledge between the pretest and posttest for both interventions.

**Keywords:** *3d Pageflip E-Module; Preventif; Prototype; Stunting Health Information System*

## Inovation of 3D Pageflip e-Module and Android Application on Compliance with Hemodialysis Therapy and Ureum Creatinine Levels in Chronic Kidney Failure Patients

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### Abstract

Chronic Kidney Failure (CKD) is a significant health issue, given its high prevalence and incidence rates, as well as the increasing number of kidney replacement treatments that patients must undergo. In Indonesia, the number of new CKD patients has more than doubled, rising from 30,831 in 2017 to 66,433 in 2018. This study aimed to improve adherence to hemodialysis therapy in CKD patients through the use of two innovative approaches: a 3D Pageflip E-Module and an Android application. The study also sought to compare the effectiveness of these two innovation models in enhancing adherence to hemodialysis therapy. This research is an operational analysis consisting of four stages and employing mixed methods. The findings revealed that in Group I, the pretest showed 43 respondents (78.2%) were non-compliant, while the post-test showed 42 respondents (76.4%) were compliant. Urea levels had a mean value of 89.181 (pretest) and 75.781 (post-test). Creatinine levels had a mean value of 6.801 (pretest) and 10.794 (post-test). In Group II, pretest compliance was observed in 31 respondents (56.4%), while post-test compliance increased to 55 respondents (100.0%). The mean urea level was 179.709 (pretest) and 79.709 (post-test). The mean creatinine level was 5.880 (pretest) and 2.572 (post-test). The mean knowledge scores were 13.854 (pretest) and 14.945 (post-test). The mean attitude scores were 50.909 (pretest) and 55.800 (post-test). Statistical tests revealed a significant increase in compliance among patients with Chronic Kidney Failure, with a  $p$ -value of 0.000. Additionally, there was a significant difference between the 3D Pageflip E-Module and the Android App groups before and after the intervention, with a  $p$ -value of 0.000.

**Keywords:** 3D Pageflip e-Module; Android Application; Chronic Kidney Failure Patients; Compliance with Hemodialysis Therapy; Ureum Creatinine Levels

## Drug Interactions in HIV-AIDS Patients in Outpatient City Hospital of South Tangerang, Indonesia

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### Abstract

**Background:** Human Immunodeficiency Virus (HIV) attacks the immune system by destroying key cells responsible for fighting disease and infection. Acquired Immune Deficiency Syndrome (AIDS) is a condition marked by a collection of symptoms due to severe immune system damage. **Objective:** To identify drug interactions in HIV/AIDS patients receiving outpatient care at South Tangerang City General Hospital. **Methods:** This study employed a descriptive observational method with a retrospective approach. Data were obtained from the medical records of HIV/AIDS patients receiving outpatient care in 2023, using a simple random sampling technique, with a sample size of 249 patients. **Results:** The results showed that the majority of HIV/AIDS patients were young adults aged 26-35 years, comprising 176 patients (71%), and most were male, accounting for 185 patients (74%). Nearly half of the HIV/AIDS medications prescribed at this hospital were from the Nucleoside Reverse Transcriptase Inhibitor (NRTI) group, specifically Lamivudine (3TC) and Tenofovir (TDF), with 88 prescriptions (28%). Drug interactions occurred in nearly half of the cases, totaling 88 instances (35%). Most drug interaction mechanisms were pharmacodynamic, with 122 cases (59%), and the majority of these interactions were of moderate severity, also 122 cases (59%). **Conclusion:** The results show that most of the test samples experience interactions, so the medical team needs to monitor, identify, to reduce the impact of interactions. **Suggestion:** It is expected to be an evaluation material to improve the quality of care for diabetes mellitus patients by reducing the risk of drug interactions and understanding if unwanted symptoms occur in patients.

**Keywords:** Drug Interactions; HIV-AIDS; Outpatient



## Assessment of Antibiotic Use in Inpatients at a Private Hospital Batam City Using ATC/DDD as a Quantitative Analysis Method

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### Abstract

Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi, and parasites no longer respond to antimicrobial drugs. As a result of drug resistance, antibiotics and other antimicrobial drugs become ineffective and infections become difficult to treat, increasing the risk of disease spread, severe illness, disability, and death. The threat of a pandemic of antibiotic-resistant bacteria is now real and large-scale. The speed at which bacteria become resistant to antibiotics is much faster than the efforts to discover and develop new antibiotics, assessment of antibiotic use including ways to address the problem of antimicrobial resistance. The purpose of this study was to determine the use of antibiotics and the description of antibiotic use patterns in inpatients at A privet hospital batam city from January - June 2024. This study was conducted quantitatively with the Anatomical Therapeutic Chemical (ATC) / Defined Daily Dose (DDD) method using a cross-sectional study design with retrospective data collection. The data obtained in this study were 494 samples that met the inclusion and exclusion criteria. The results of the study showed that there were 17 types of antibiotics used during the period January - June 2024 with a total DDD value of 100.44 DDD/100 patient-days. The three types of antibiotics with the highest DDD/100 patient-days were ceftriaxone at 58.08 DDD/100 patient-days, levofloxacin at 14.98 DDD/100 patient-days and azithromycin at 10.89 DDD/100 patient-days. The conclusion is that the antibiotic used the most is ceftriaxone with a value of 58.08 DDD/100 patient-days, so we must undertake a qualitative review of ceftriaxone antibiotic use.

**Keywords:** *Antibiotics; ATC/DDD; Inpatient a Private Hospital Batam City*

## Analysis of Anti-Infective Treatment Plan in a Patient with Acute Exacerbation of Chronic Obstructive Pulmonary Disease Combined with Chronic Pulmonary Heart Disease

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### Abstract

This article reports an analysis of the anti-infective treatment regimen in a patient with Acute Exacerbation of Chronic Obstructive Pulmonary Disease combined with chronic pulmonary heart disease. The patient was an 80-year-old male who was admitted to the hospital with recurrent cough and shortness of breath for more than 10 years and reoccurrence for 10 days. The patient had a history of hypertension, cerebral infarction, and macular degeneration in both eyes. Temperature, respiration, pulse, and blood pressure were normal on admission. Chest CT showed right-sided pleural fluid, emphysema, and atherosclerosis. Course of treatment: The patient first received anti-infective treatment with biapenem combined with nenofloxacin, which was later adjusted to levofloxacin due to the high risk of drug resistance. After 7 days of treatment, the patient's symptoms of cough, asthma and sputum improved, and the dry rhonchi of the left lung could be heard on double lung auscultation, and the breath sounds of the right lower lung were low. Chest CT showed that the right pleural effusion was reduced. The patient had no adverse reactions during treatment.

**Keywords:** *Clinical Pharmacist; ESBLs (Extensively Drug-Resistant Enterobacteriaceae); Levofloxacin; Pseudomonas Aeruginosa*

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

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### Abstract

**Introduction:** 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 recognized 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. **Materials & 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 recognized the role of Radiologic Technologist Specialists (RTS) in writing image reports, while 61% did not. Additionally, 38% believed that image interpretation by RTS 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 image interpretation by RTS 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 and diagnosis as well. 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; Radiologic Technologist; Radiologist; Middle East

## Effect of Sponge and Conventional Tub Baths on Vital Signs and Pain Scales in Newborns: A Comparative Study

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### Abstract

**Background:** The transition of newborns from the intrauterine to the extrauterine environment faces physiological and psychological challenges in order to adapt to the new environment. During this challenging process, newborns can experience trauma. Traumatic experiences can be experienced through various invasive and non-invasive procedures. One of the non-invasive procedures that can cause trauma is bathing a newborn. Therefore, atraumatic care is needed.

**Objective:** The objective of this study is to determine the comparative effect of conventional tub and sponge bath on vital signs and pain scales in newborns. **Methods:** The research method used Quasy Experimental in 2 intervention groups, which is sponge group and the conventional tub bath group. The sample size was 25 newborn respondents for each group with a purposive sampling technique. The research instrument for vital signs was purchased in new and sealed conditions. While the pain scale instrument used the Neonatal Infant Pain Profile (NIPS). The data normality test showed that the data was not normally distributed with a  $p$ -value  $<0.05$ . The bivariate test used was the nonparametric Wilcoxon test and the comparative test of the intervention's effectiveness used was the Mann Whitney test. **Results:** The results of the study showed that there was an effect of sponge bath on body temperature, heart rate, respiratory rate, oxygen saturation and pain scale in newborns with  $p$ -value = 0.001 ( $\alpha <0.005$ ). While there was an effect of conventional tub bath on body temperature, heart rate, respiratory rate, and pain scale in newborns with  $p$ -value = 0.001 ( $\alpha <0.05$ ), but there was no effect of conventional tub bath on oxygen saturation in newborns with  $p$ -value = 0.087 ( $\alpha >0.05$ ). There was a comparison of the effects of sponge bath and conventional tub bath on heart rate, respiratory rate, oxygen saturation, and pain scale with  $p$ -value = 0.001 ( $\alpha <0.05$ ), but there was no comparison of the effects of sponge and conventional tub bath on body temperature with  $p$ -value = 0.252 ( $\alpha >0.05$ ). **Conclusion:** It can be concluded that sponge bath can cause traumatic experiences in newborns but conventional sponge bath can help in stabilizing vital signs especially oxygen saturation in newborns. This can also be supported by crying duration before, during and after bathing is shorter than the sponge bath method. Conventional tub bath is a safer bathing method than sponge bath. It is recommended for further researchers to add variables of crying duration and stress levels in newborns when bathed with the same method.

**Keywords:** Bath; Newborn; Pain Scale; Vital Signs

## Anti-Stigma Interventions in Increasing Positive Attitude Toward People with Mental Disorders Among Nursing Students: A Literature Review

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### Abstract

**Background:** Anti-stigma interventions aim to refute negative attitudes and beliefs or correct misinformation by providing facts about the stigmatized condition. Most nursing students will eventually become frontline healthcare professionals and may encounter patients with mental illness. Therefore, nursing education carry great responsibilities in shaping the positive attitudes that are held by nursing students towards people with mental disorders. **Objectives:** The objectives of this literature review are critically discuss about nursing students' attitudes toward people with mental disorders, describe stigma intervention strategies and identify the best tools to measure stigma. **Methods:** The literature review employed three electronic databases; ProQuest, PubMed, and Google Scholar. All full-text research articles that reported qualitative, quantitative, and mixed method designs from the year 2019 to 2024 were included for the review. The keywords or search terms used were mental health, anti-stigma intervention, and nursing student. **Results:** The search yielded 28 full-text research articles which used semi-structured interviews, focus group discussions, and questionnaires to collect the data related to stigma. The literature revealed that the stigma were measured using the following: modified Attribution Questionnaire; the Perceived Psychiatric Stigma Scale, and modified Social Distance Scale; the Attribution Questionnaire (AQ-9); Opening Minds Stigma Scale for Health Care Providers (WHO-HC) Questionnaire; the CAMI Scale, Social Distance Scale Questionnaires and Stigmatising Attitudes; the Questionnaire on Stigmatizing Attitudes; the Questionnaire on Stigmatizing Attitudes Towards Mental Illness; the AQ-27-E questionnaire; the Community Attitude towards the Mentally Ill questionnaire; and Mental Illness: Clinicians' Attitudes Scale (MICA-4). With regard to nursing students' attitudes toward people with mental disorders which were obtained through interview guides (in-depth interviews and focus group discussions), observation sheets, and questionnaires were reportedly differed based on their cultural myth and belief factors. The factors related to having less stigma attitude particularly on the view that people with mental disorders are inferior among the nursing students, were higher education level, residence in urban areas, single marital status, better economic status, and better familiarity with mental disorders. Meanwhile, anti-stigma interventions in nursing education accomplished through lectures, courses, seminars, anti-stigma curriculum development, and learning strategies have been found to help in reducing negative attitude towards people with mental disorders. **Conclusion:** This literature review demonstrates that anti-stigma interventions helped in reducing negative attitudes toward people with mental disorders. In view of this, nursing education programmes should strengthen such interventions in preparing future nurses with positive attitudes. However, it should be mentioned this review is very incipient due to the scarcity of studies that contemplate follow-up. It is recommended that future research is needed to determine the medium-and long-term effects of the anti-stigma interventions.

**Keywords:** Anti-Stigma; Intervention; Mental Disorders; Mental Health; Nursing Attitudes; Nursing Student

## Effectiveness of QSEN Android Application on Patient Centred Care in Patient Safety among Nurses

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### Abstract

Patient-Centered Care (PCC) is a healthcare service that involves multiple professions, such as doctors, pharmacists, nutritionists, nurses, and others. However, in practice, the implementation of PCC often faces challenges due to nurses' limited knowledge. To address this, an application called Quality and Safety Education for Nurses (QSEN) was developed as an electronic module to enhance nurses' knowledge in implementing PCC. The purpose of this study is to evaluate the effectiveness of the QSEN Android application in supporting the implementation of PCC. This research is a quantitative study with a quasi-experimental design, using a pre-post test approach with a control group. The study sample consisted of 290 nurses from Bahteramas Hospital as the intervention group, who were provided with the QSEN module, and 290 nurses from Kendari City Hospital as the control group, who did not receive the intervention. The research instruments measured nurses' knowledge, skills, and attitudes in applying PCC before and after the intervention. The results showed that for nurses at Bahteramas Hospital, the knowledge category had a Phi value of 0.0001, the skills category had a Phi value of 0.0001, and the attitude category also had a Phi value of 0.0001, all of which were less than 0.05, indicating that QSEN was effective in improving knowledge, skills, and attitudes in implementing PCC. Meanwhile, in the control group, based on the paired t-test results, the knowledge category had a Phi value of 0.143, the skills category had a Phi value of 0.74, and the attitude category had a Phi value of 0.083, all of which were greater than 0.05, meaning there was no improvement in knowledge, skills, or attitudes in implementing PCC. Therefore, it can be concluded that the QSEN Android application is effective in enhancing nurses' knowledge, skills, and attitudes in implementing PCC.

**Keywords:** Nurse; Patient Centred Care; QSEN



## Health Education Using an Android-Based Module to Increase the Knowledge of Women Age 45–55 Years Old Facing Menopause in Bandung Indonesia

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### Abstract

Menopause, which refers to permanent end of the menstrual cycle due to cessation of production of reproductive hormones from the ovaries for at least 12 consecutive months is normal condition. Menopause occurs in all menstruating women due to non-pathological estrogen deficiency. Many women experience symptoms for several years before menopause, marked by the end of the menstrual period. Menopause is a normal physiological process in elderly women where the number of primary ovarian follicles decreases rapidly, so that the number is insufficient to respond to the effects of FSH. Ovulation does not occur, resulting in decreased estrogen production and cessation of menstruation. The World Health Organization (WHO) estimates that by 2030, there will be approximately 1.2 billion women over the age of 50, with 80% coming from developing countries. This study aims to examine the impact of health education using an Android-based module on the knowledge of women aged 45-55 facing menopause in the city of Bandung, Indonesia. The population consisted of 2,706 women aged 45–55 years, with a sample of 210 divided into control groups and intervention groups. The sampling technique uses G-Power. This research employed quantitative analytical method with a correlative cross-sectional to examine the impact of an Android Based health education module on the knowledge of women aged 45-55 facing menopause in Bandung, Indonesia. The instrument used a questionnaire.

**Keywords:** *Android Application; Health Education; Knowledge; Menopause*

## Family Social support in Schizophrenia Patients: A Systematic Literature Review

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### Abstract

**Introduction:** Serious mental disorders are disorders of the ability to assess reality or poor insight. In 2019, the prevalence of schizophrenia was around 24 million people (3%) or 1 in 300 people, while in Indonesia the prevalence of schizophrenia sufferers increased from 1.7 to 6.7. People with schizophrenia experience continuous difficulties in their cognitive functions, resulting in withdrawal from society, decreased performance, withdrawal from society, decreased social performance, decreased quality of work due to loss of interests and goals. One of the factors that increases mental health problems is social support. **Aim:** to determine family social support for schizophrenia. **Methods:** This research used a systematic literature review using PRISMA guidelines. **Results:** Family social support depends on burden, satisfaction, ability, resilience, social support, individual social function, level of perception, risk of recurrence. **Conclusions:** Family social support is very important in treating schizophrenia patients.

**Keywords:** Family Social Support; Schizophrenia

## Evaluation of Total Phenol, Flavonoids, Antioxidant Activity and GC-MS of Ethanol Extract of *Moringa oleifera* whole leaves

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### Abstract

*Moringa (Moringa oleifera Lam)* is a medicinal plant that is a source of nutrients. It is rich in protein, fatty acids, minerals, relatively high polyphenol compounds, and has antioxidant activity. This study aims to obtain information about secondary metabolites, total phenol content, total flavonoids, antioxidant activity and GC-MS of the ethanol extract of *Moringa* leaves. Total phenol was determined by the Folin Ciocalteu method, while total flavonoids were determined by the colorimetric method. Whilst the antioxidant activity was determined by the DPPH (2,2-diphenyl-1-picrylhydrazyl) method at a wavelength of 517 nm. The results showed that the ethanol extract of *Moringa* leaves contained flavonoids, phenols, tannins, saponins, alkaloids, and steroids. The total phenol content in the ethanol leaf extract was 63.16 mg GAE/g extract, and the total flavonoid content was 10.477 mg QE/g extract. *Moringa* leaf ethanol extract has antioxidant activity with an IC<sub>50</sub> of 118.6145 mg/L, classified as having moderate antioxidant activity, GC-MS analysis of the extract reveals the identification of twenty compounds, in which two compounds were identified in each peak. N,N'-Pentamethylenebis[s-3-aminopropylthiosulfuric acid and 2-Myristinoyl pantetheine (100%), 2-Myristinoyl pantetheine and Deoxyspergualin (92.05%), 5-Octadecenal and 9-Hexadecenoic acid (27.94%). N,N'-Pentamethylenebis[s-3-aminopropyl thiosulfuric acid and Pentetic Acid are the major phytoconstituents. Most of the compounds in the list are bioactive and possess medicinal properties, which further justify the application of *Moringa oleifera* traditional plant in the discovery of novel therapeutics.

**Keywords:** Antioxidant Activity; Flavonoids; GC-MS Analysis; *Moringa Oleifera*; Total Phenol Content

## Relationship between Social Support and Parental Stress in Mothers of Children with Autism

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### Abstract

**Background:** Children with autism spectrum disorder (ASD) tend to exhibit more severe challenging behaviours than typically developing children and those with intellectual or other disabilities. Parents of children with autism, especially mothers, experience more parental stress compared to mothers of typical children. The aim of this research was to discuss the relationship between social support perceived to mothers of children with autism and parental stress levels.

**Methods:** This was a cross-sectional study conducted at Bengkulu, Indonesia. A total sample of 43 mother of children with autism at special school for autism. The independent variables included social support. The dependent variable was parental stress. The data were collected by questionnaire and analysed used Chi-Square, and Contingency Coefficient. **Results:** Most of the parents have low level of stress (52,2%), followed with moderate level of stress (48,8%). The parents have good social support (54,2%), followed with the parents have low social support (45,8%). There is a significant relationship between social support and parental stress in mothers of children with autism ( $p : 0,022$ ). **Conclusion:** The higher (good) of social support for mothers with autistic children, the less stress the mother will experience in caring for autistic children.

**Keywords:** *Children with Autism, Mothers, Parental Stress, Social Support*

## Development and Usability of a Mobile Application on Self-Directed Learning of Massage Therapy

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### Abstract

**Background:** The usability and availability of a smartphone app in Indonesia for improving body weight among children with low-birth weight are being investigated due to the growing interest in self-directed learning of mobile application tools. **Objectives:** This research aimed to document the development and usability testing stages of a mobile application on self-directed learning of massage therapy. **Methods:** The app, developed using a server-client architecture and the HyperText Transfer Protocol and Web API, was analyzed using the Think aloud and Smartphone Usability questionnaire during the prototype phase evaluation. **Results:** The result showed that the agreement of the content reported 95%, indicating good validity. Thirteen out of the fifteen participants used the notification page to limit their time on social media. The mean IMI score was 4.34 (SD=0.45) out of 7. The App had a SUS score of 68.16 (SD = 9.34). The participants gave the app an average of 18.45 (SD = 1.76). **Conclusion:** The test revealed that the app prototype was designed with the end user in mind, ensuring high usability. The app provides health education and serves as a foundation for future mobile applications for parents to prevent low-birth weight.

**Keywords:** Baby Massage; Development; Low-Birth Weight; Mobile Application; Usability

## A Study to Evaluate the Academic Performance of University Students and their Parents' Socio-Economic Status in China

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### **Abstract**

The study aims to identify patterns and correlations between students' academic achievements and various SES indicators, including income, education level, and occupation of parents. This study evaluates the academic performance of university students in China in relation to their parents' socio-economic status (SES) using a quantitative research method. Data is collected from a sample of university students across different regions in China through structured questionnaires and academic records. The analysis employs statistical techniques such as correlation and regression analysis to examine the relationship between SES and academic performance. Preliminary findings indicate a significant positive correlation between higher parental SES and better academic outcomes. Students from higher SES backgrounds tend to have access to more educational resources, better learning environments, and greater parental support, which contribute to their academic success. Furthermore, the study explores the impact of specific SES components on academic performance. Parental education level emerges as a critical factor, with students whose parents have higher educational qualifications performing better academically. Income and occupation also show significant, albeit slightly weaker, correlations with academic performance. The study's findings underscore the importance of addressing socio-economic disparities to promote educational equity. Policy implications suggest the need for targeted interventions to support students from lower SES backgrounds, such as financial aid, tutoring programs, and parental engagement initiatives. By highlighting the link between SES and academic performance, this research contributes to the broader understanding of educational inequalities and informs strategies to enhance academic outcomes for all students.

**Keywords:** Application; Baby Massage; Development; Low-Birth Weight; Mobile Usability



## Inovation Android Application M-RIS (Modul Education Renal Illness System) on Compliance with Hemodialysis Therapy and Ureum Creatinine Levels in Chronic Kidney Failure Patients

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### Abstract

Chronic Kidney Failure (CKD) is an important health problem, considering that in addition to its prevalence and incidence rate, there is also an increasing number of kidney replacement treatments that must be experienced by patients. The number of new CKD patients in Indonesia has doubled, namely 30,831 patients (in 2017) and 66,433 patients (in 2018). The purpose of the study was to improve compliance carrying out hemodialysis therapy in patients with Chronic Kidney Failure through M Android Application innovation models adhering to carrying out hemodialysis therapy. This research is an operational research analysis research consisting of 4 (four) stages with mixed methods. The results of the study were known that in group for Patients whom are given education by Android Application M-Ris (Modul Education Renal Illness System for pretest compliance, 43 respondents were non-compliant (78.2%) and post-test compliance 42 respondents were compliant (76.4%). Urea level with a mean value of 89.181 (pretest) and 75.781 (post-test). Creatinine level mean value 6.801 (pretest) and 10.794 (post-test). The results of the statistical test were obtained that there was an increase in compliance in patients with Chronic Kidney Failure with a  $p$ -value = 0.000.

**Keywords:** *Android Application; Compliance with Hemodialysis Therapy; Ureum Creatinine Levels; Chronic Kidney Failure Patients*

## An Educational Model for Lactation Based on Maternal Role Attainment and Experiential Learning Theories to Enhance Breastfeeding Readiness in Third-Trimester Pregnant Women

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### Abstract

The success of breastfeeding is greatly influenced by the mother's ability to undergo the process of changing roles into a mother. This study aims to develop a lactation education model based on the theory of Maternal Role Attainment (MRA) and Experiential Learning, and to analyze the factors that influence changes in the mother's role and the mother's participation in the lactation education process. This study used an explanatory research design with a cross-sectional approach conducted on 228 pregnant women in the third trimester who were selected using the rule of thumb formula with multi-stage cluster sampling in pregnant women at health centers in the Semarang city area. The researcher used a modified questionnaire regarding maternal factors, husband factors, baby factors, educator factors, family factors, family support, learning environment factors, lactation education process and breastfeeding readiness. The results showed that maternal factors influenced the lactation education process ( $p = 0.000$ ), husband factors influenced the lactation education process ( $p = 0.002$ ), family support influenced the lactation education process ( $p = 0.019$ ), learning environment factors influenced the lactation education process ( $p = 0.002$ ). Family support factors affect breastfeeding readiness ( $p=0.019$ ), learning environment factors affect breastfeeding readiness ( $p=0.000$ ), and lactation education process affects maternal readiness to breastfeed ( $p=0.002$ ). From the results of PLS modeling, it can be seen that family support has the greatest influence on the lactation education process with a  $T$ -statistic value of 0.459. The development of a lactation education model based on MRA and EL theories is a basic intervention in providing lactation education to increase the success of breastfeeding. The integration of MRA theory with the experiential learning approach offers an effective strategy to support the transition of maternal roles and increase participation in lactation education.

**Keywords:** *Changes in Maternal Roles; Experiential Learning; Lactation Education; Maternal Role Attainment; Third Trimester Pregnant Women*

## Reliability of Triage Emergency Severity Index (ESI) and Chanif Triage System (CTS) in Determining Patient Urgency

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### Abstract

Triage is a process that aims to assess the severity of a patient using certain criteria. ESI is a triage system based on the classification of patient's urgency and resource needs, while CTS is a newly developed system in Indonesia with an approach that is more suitable to local conditions. However, before it can be widely implemented, a thorough evaluation is needed to ensure that these systems have adequate validity and reliability. This study aims to evaluate the validity and reliability of two triage instruments used in the Emergency Department (ED), namely the Emergency Severity Index (ESI) and the Chanif Triage System (CTS). This study design used an observational approach with a cross-sectional method conducted in three hospitals in Semarang, namely Dr. Kariadi General Hospital, KRMT Wongsonegoro General Hospital, and Dr. Adhyatma General Hospital. A total of 150 respondents who met the inclusion criteria were sampled through purposive sampling technique. The results showed that both triage systems had adequate validity and reliability for use in the emergency room, with Cronbach's Alpha values for ESI of 0.672 and CTS of 0.646. Mann-Whitney analysis showed that there were significant differences in some indicators such as urgency and resources, but no significant differences in basic needs interference between the two systems. In conclusion, both ESI and CTS are reliable triage tools in emergency departments, with CTS providing a viable alternative to local triage systems in Indonesia.

**Keywords:** Chanif Triage System (CTS); Emergency Department; Emergency Severity Index (ESI); Validity, Reliability

## Enhancing Functional Independence in Neurological Rehabilitation for Elderly Individuals Through Balance, Coordination, and Gait Training: A Conceptual Framework

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### **Abstract**

The ageing process is a complex and diverse system that includes a wide range of biological, psychological, and social changes that people go through as they get older. Elderly people are more likely to develop balance, coordination, and gait difficulties. These obstacles can hinder their functionality, resulting in disability and a decline in their overall quality of life. Impaired balance, coordination, and gait are typical difficulties in the elderly, particularly those undergoing neurological rehabilitation. These deficiencies can compromise independence and increase the likelihood of falls and injuries. Altered gait patterns and an elevated risk of falls in the elderly have been extensively reported. When rehabilitating neurological diseases, physiotherapy is an indispensable component, particularly considering enhancing functional ability and promoting autonomy in elderly adults. Neurological rehabilitation in Malaysia encounters notable obstacles, namely in the provision of care for stroke and traumatic brain injury. Interventions that improve balance, coordination, and gait can increase mobility, reduce falls, and promote greater independence in daily activities. Integrating exercises like these into neurological rehabilitation programs could help elderly people reclaim functional independence and improve their overall level of life. The research objective is to examine the efficacy of balance exercises, coordination exercises, and gait training in improving functional independence among elderly patients undergoing neurological rehabilitation. Review and discuss the relevant material to highlight the links between the variables. The study's conclusions provided a conceptual framework that anticipated the pertinent elements of gait training, balancing, and coordination exercises. We need more empirical research to verify the validity of this conceptual framework.

**Keywords:** *Balance Exercise; Coordination Exercise; Gait Training; Functional Independence*

## Impact of Self-Management on Quality of Life among Hemodialysis Patients : A Scoping Review

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### Abstract

**Background:** Chronic Kidney Disease (CKD) is a progressive and irreversible kidney function disorder, characterized by a glomerular filtration rate of  $<15\text{ml/minute}/1.73\text{m}^2$ , thus affecting an individual's health and quality of life. Therefore, it is important to examine the effect of self-management on quality of life in chronic kidney disease patients undergoing Hemodialysis. Researchers conducted a systematic review of the quality of life of kidney failure patients undergoing dialysis. **Aim:** This Scoping Review aims to determine the effect of self-management on improving quality of life. **Methods:** This systematic review uses the PICOS framework method to search for articles in databases such as Science Direct, PubMed and Google Scholar. The articles used were 10 articles with a time period of 2020-2024 and the type of research used was Randomized Controlled Trial and Quasi-experimental. **Results:** The results of the study showed that the self-management scale and quality of life before the intervention were low, while the intensity after the intervention was given was good. **Conclusion:** Self-management has a positive influence in improving the quality of life scale in chronic kidney disease patients undergoing Hemodialysis based on the concept of cognitive behaviour. **Suggestion:** It is hoped that self-management can be a recommendation in services at health facilities to improve the health status of chronic kidney disease patients undergoing Hemodialysis.

**Keywords:** *Self-Management; Chronic Kidney Disease; Quality of Life; Hemodialysis*

## Effectiveness of Antenatal Physiotherapy Exercises in Enhancing Diagnostic Accuracy and Improving Patient Safety During Labor: A Randomized Control Study

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### Abstract

The female body experiences several physiological changes during pregnancy. The percentage of caesarean sections performed as opposed to vaginal births has significantly increased in recent years. Physiotherapy exercise attitudes and the experiences of women who exercise during pregnancy are not well studied, despite the fact that vaginal delivery is the best pregnancy outcome for both the mother and the baby. Reducing the need for a caesarean section, preventing excessive weight gain, gestational diabetes, pregnancy-induced hypertension, limiting pregnancy pain, or enjoying the full spectrum of advantages associated with exercising throughout pregnancy. Antenatal physiotherapy exercises are believed to play a vital role in improving maternal outcomes during labor. This randomized control study (RCT) aims to investigate the effectiveness of a structured antenatal physiotherapy exercise program on labor outcomes such as duration of labor, mode of delivery, and maternal discomfort. Research Methodology The experimental group consisted of 25 primigravida's in their second and third trimesters who had no high-risk pregnancy problems and were willing to exercise often as recommended. Results indicated that the intervention group had shorter labor duration, fewer cesarean sections, and lower levels of maternal discomfort. The findings suggest that antenatal physiotherapy exercises positively influence labor outcomes and should be incorporated into standard prenatal care.

**Keywords:** *Antenatal Physiotherapy; Labor Outcomes; Maternal Discomfort; Natural Childbirth; Pregnancy; Randomized Control Trial*



## The Relationship between Self-Efficacy and Quality of Life in Hypertension Patients

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### Abstract

**Background:** Hypertension is often referred to as the "silent killer" because it strikes suddenly. Hypertension is a condition in which an individual experiences elevated blood pressure, indicated by systolic and diastolic numbers. The success of treating hypertensive patients also requires self-confidence in managing high blood pressure to improve health outcomes. One of the factors influencing this is self-efficacy. Self-efficacy aims to help hypertension patients improve their health. **Objective:** To determine the relationship between self-efficacy and quality of life in patients with hypertension. **Research Method:** Quantitative descriptive research design. The population of this study consists of 143 hypertension patients in Dompnyongan Village. The sample used consisted of 65 respondents with a proportional purposive sampling technique. The data collection instruments used are the Self Efficacy To Manage Hypertension (SEMH) questionnaire and the World Health Organization Quality of Life BREF questionnaire (WhoQol-Bref). **Results:** The majority of respondents in the study were female, comprising 52.3%, with an average age of 46.25 years. The majority had a high school/vocational education, accounting for 40.0% of respondents. Those suffering from hypertension for  $\leq 5$  years made up 86.2% of respondents. Most lived with family, totaling 96.9% of respondents. Respondents with good self-efficacy represented 61.5%, while those with very good quality of life constituted 36.9%. **Conclusion:** The research shows that the self-efficacy of hypertension is predominantly in the good category, with a percentage of 61.5%, and the quality of life is mostly in the very good category, with a percentage of 36.9%. The results of the bivariate analysis using Kendall's Tau indicate a relationship between self-efficacy and quality of life in hypertension patients in Dompnyongan Village, with a p-value of 0.001 ( $p$ -value  $< 0.05$ ).

**Keywords:** Hypertension; Self Efficacy; Quality of Life

## Knowledge of Catheter-Related Bloodstream Infections Prevention among Staff Nurses in Dialysis Center

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### Abstract

**Introduction:** Patients with end-stage renal disease would ideally begin hemodialysis treatment with mature functional arterio-venous access. However, Central Venous Catheters (CVCs) for hemodialysis access are unavoidable in newly started patients and specific groups such as geriatric and pediatric patients. The usage of CVC is associated with Catheter-Related Bloodstream Infections (CRBSIs), among the highest contributing factors to mortality in hemodialysis patients and with high estimated treatment expenses. Dialysis nurses and healthcare personnel who handle CVCs must be well-trained, knowledgeable, and compliant with updated clinical practices to prevent CRBSIs. The continuous performance of CVCs procedures in hemodialysis settings increases the risk of infection, making it essential that nurses are proficient in insertion assistance, care, and maintenance of these central lines. The ongoing education of dialysis nurses, fostering their knowledge, attitudes, and practices, is critical for improving adherence to these preventive measures, ultimately helping to reduce the incidence of CRBSIs in patients. The annual updates to guidelines by international institutions serve as key resources to ensure that healthcare workers are implementing the most current evidence-based practices. **Purpose:** This study aimed to assess the level of knowledge of CRBSI prevention among dialysis nurses. **Methods:** A cross-sectional study was conducted on 100 nurses in the dialysis center. A purposive sampling method was used. The tool for data collection was a questionnaire consisting of participant's socio-demographic data and the level of knowledge of dialysis nurses regarding the prevention of CRBSI. The data were analyzed using IBM Statistical Package Social Science (SPSS) version 27. **Results:** The findings of this survey show a percentage as follows: 42.0% (n=42) of the participants had an intermediate level of knowledge, while 21.0% (n=21) had low knowledge, and only 37.0% (n=37) had a high level of expertise. **Conclusion:** In conclusion, the study demonstrated that most dialysis nurses have an intermediate level of mastery related to CRBSI prevention. Suggestion: Organizations involved in CVC maintenance and care should emphasize education programs and continuous in-service training to all staff involved.

**Keywords:** Knowledge; Dialysis; Staff Nurses; Catheter Related Blood-Stream Infection (CRBSI)

## Determinants of Decreased Kidney Function in DM Patients in Semarang

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### Abstract

**Introduction/Objectives:** Kidney function can be impaired due to Diabetes Mellitus (DM) due to increased glucose levels in the blood that affect kidney performance. Decreased kidney function needs to be properly evaluated in DM patients to anticipate the occurrence of kidney failure. It is necessary to analyze various factors that affect the deterioration of kidney function and Diabetes Kidney Disease (DKD) in DM patients. Purposes: We aimed to find the determinant factors of kidney function decrease at DM patients. Methods: A combination of retrospective medical record review dan cross sectional methods of 100 adult patients with diabetes mellitus (DM) at 4 clinics in Semarang, Central Java in September-December 2023. Kidney function is seen from the glomerular filtration rate (GFR) based on the results of creatinine clearance tests (CCT). Results: Among 100 patients with DM 83 (83.0%) patients had decreased kidney function. Among the group of patients with DKD, the majority were in CKD stage 2 (41.0%), followed equally by G3 (37.0%), stage (37.0%) and stage (5%). Decline in kidney function is significantly correlated with increasing age ( $p<0.005$ ). Women had 2.03 times greater odds of DKD (95% CI, 1.41-3.71;  $p<0.005$ ), prolonged suffering from DM is also related to decreased kidney function. Several comorbid medical conditions such as hypertension, hyperlipidemia are determinants of decreased kidney function in DM patients. Factors such as lack of self-care and low self-efficacy are also determinants of decreased kidney function in DM patients ( $p<0.005$ ). **Conclusions:** In patients with diabetes, increasing age, female sex, lack of self-care, low self-efficacy the presence of comorbidities of hypertension and hyperlipidemia were associated with decrease of kidney function in DM patient.

**Keywords:** Diabetes; Kidney Function; CCT, GFR

## The relationship between Team Building with Burnout Syndrome in Nurses

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### Abstract

Burnout Syndrome namely physical, emotional and mental fatigue caused by being in a situation that demands emotions, changes in attitude and behavior in the form of psychological withdrawal from work due to fatigue so that employee gathering is needed to increase involvement, motivation and job satisfaction which of course affects positive performance. With a quantitative research type and cross-sectional design on 42 respondents. The research instrument used a questionnaire Maslach Burnout Inventory (MBI) and employee gathering questionnaire. The analysis used univariate with the person chi square test 3x2 and alternative test, namely fisher's exact test 3x2. The results of statistical tests from respondents as many as 42 implementing nurses found that most respondents experienced mild burnout, there were 19 (45.2%) respondents who were dissatisfied with employee gathering activities and only 10 (23.8%) respondents were satisfied. From the results of statistical tests using the person chi square test, a  $P$ -value of  $0.291 > \alpha 0.05$  was obtained, so an alternative test was carried out, namely the fisher's exact test with a  $P$ -value of  $0.327 > \alpha 0.05$ , which means that there is no significant relationship between the relationship between nurse burnout syndrome and employee gathering in implementing nurses in the edelweiss and dahlia rooms at Arifin Achmad Hospital, Riau Province because employee gathering activities were held in January, while the study was conducted in July so that the time span between employee gathering activities and the study was very far and nurses had experienced burnout syndrome again. It is hoped that with this research, hospitals can consider holding gatherings during working hours or at times that do not disrupt the work-life balance of nurses and employee gathering activities can still be carried out alternately.

**Keywords:** Burnout Syndrome; Employee gathering; Nurse

## Determinants of Attention Deficit and Hyperactivity Disorder in Children at the Therapeutic Center for Children Growth and Development at Ciputat Sub District, South Tangerang

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### Abstract

The prevalence of children suffering from GPPH in the world is about 7.2% of the total population, about 129 million children with GPPH in 2015. As for Indonesia, the prevalence of GPPH increases every year by 2.4% in elementary school students. The purpose of this study is to determine the relationship between genetic history, gadgets, exposure to cigarette smoke, parenting style, birth weight and attention deficit disorder and hyperactivity. This research method is a quantitative research that uses primary data (questionnaire) and uses a cross sectional method with the aim of determining the relationship between independent variables and dependent variables. The number of samples was 52 children who visited the Ciputat Therapeutic Child Therapy and Growth and Development Center. From the results of the study, attention deficit disorder and hyperactivity were obtained by 41 respondents (78.8%). The results of the statistical test obtained genetic history values ( $p=0.011$ ), gadgets ( $p=0.012$ ), exposure to cigarette smoke ( $p=0.017$ ), parenting style ( $p=0.012$ ) and birth weight ( $p=0.014$ ), the results of multivariate analysis showed a  $p$ -value of  $> 0.05$  for genetic variables, gadgets and exposure to cigarette smoke had an Exp B  $> 2$  value, so it can be concluded that there is a significant relationship between family history (genetic), Gadgets, exposure to cigarette smoke, parenting, and weight are born with attention deficit disorder and hyperactivity, with influencing factors such as family history (genetic), gadgets and exposure to cigarette smoke. Suggestions from the results of this study are expected for researchers to further develop, improve and complement this research with other factors that affect or are related to attention deficit disorder and hyperactivity.

**Keywords:** Attention Deficit Disorder, Hyperactivity, Children

## Analysis the Quality of Life in Type 2 Diabetes Mellitus Patients in Pekanbaru City, Riau Province

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### Abstract

Type 2 Diabetes Mellitus is a chronic condition that can lead to numerous complications, affecting both physical and psychological health. The quality of life in patients with type 2 diabetes mellitus is influenced by a complex interplay of physical, psychological, socio-economic, and lifestyle factors. The aim of this research is to analyze the quality of life of type 2 diabetes mellitus patients in four domains, namely the physical domain, psychological domain, social domain and environmental domain. This study used a descriptive survey method to look at the quality of life of type 2 diabetes mellitus patients. The population in this study was all patients with diabetes mellitus tupe 2 in the city of Pekanbaru. For sampling, researchers used purposive sampling technique. The number of sample in this study is 30 respondent, because we uses the central limit theorem. For data analysis, researchers used frequency distributions in SPSS for Windows to describe each domain of quality of life in type 2 diabetes mellitus patients. The results of this study are that the majority of respondents have a moderate quality of life in all domains, physical domain 86.7%, psychological domain 93.3%, social domain 86.7% and environmental domain 73.3%. Addressing these issues through comprehensive diabetes management strategies, including mental health support, education, lifestyle modifications, and enhanced social support, is essential for improving the QoL of individuals living with Type 2 Diabetes Mellitus.

**Keywords:** *Type 2 Diabetes Mellitus; Quality of Life; Phisycally; Psichological; Social; Environment*



## Nursing Coaching Supervision to Improve Nursing Performance and Quality of Nursing Care in Hospital: Systematic Review

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### Abstract

In recent years, the use of technology in healthcare has gained momentum, with the implementation of electronic health platforms that offer various benefits to patients and healthcare professionals. One such technological advancement is Nursing Coaching Supervision, which aims to enhance nursing performance and improve the quality of nursing care through virtual coaching and supervision. This systematic review aims to evaluate in improving nursing performance and quality of nursing care in hospital settings with nursing coaching supervision. A systematic search was conducted using electronic databases such as PubMed, CINAHL, Scopus, and Cochrane Library to identify relevant studies on Nursing Coaching Supervision in hospital settings. The search strategy included keywords such as "Nursing Coaching Supervision," "Nursing Performance," "Quality of Nursing Care," and "Hospital." Only studies published in the Indonesian and English language from 2010 to 2021 were included in this review. Two reviewers independently screened the articles, extracted data, and assessed the quality of the included studies using the Systematic Reviews and Meta-Analyses (PRISMA). A total of 10 studies met the inclusion criteria for this systematic review. The studies included in this review evaluated the impact of Nursing Coaching Supervision on various outcomes such as nursing performance, patient outcomes, job satisfaction, and quality of nursing care. Overall, the findings suggest that Nursing Coaching Supervision can have a positive impact on nursing performance and quality of nursing care in hospitals. Most of the studies reported improvements in clinical skills, communication, teamwork, and patient safety among nurses who received Coaching and Supervision interventions. The findings of this systematic review suggest that Nursing Coaching Supervision can be an effective tool to improve nursing performance and enhance the quality of nursing care in hospital settings.

**Keywords:** Coaching; Supervision; Nursing Performance; Quality of Nursing Care

## The Role of Electronic Nursing Documentation in Enhancing Patient Care Quality: A Systematic Literature Review

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### Abstract

Electronic nursing documentation (END) has become an essential component of modern nursing practice. The use of END is expected to improve the quality of patient care through more accurate and efficient record keeping. This article aims to evaluate the effectiveness of electronic nursing documentation in improving the quality of patient care. This systematic review study was conducted in June-July 2024 by searching the literature on electronic databases such as ProQuest, Science Direct, PubMed, and Google Scholar for articles published between 2019 and 2024. The keywords used included "electronic nursing documentation", or "computerized nursing documentation" and "quality of care" and "nurse" "hospital". Two reviewers independently screened the articles, extracted data, and assessed the quality of the included studies using the Systematic Reviews and Meta-Analyses (PRISMA). There were 9 articles met the inclusion criteria and were analysed further. The inclusion criteria were RCT and non RCT, cross sectional and observational study, and hospital setting, while the exclusion criteria were qualitative study and literature or systematic review. The analysis showed that the use of END significantly improved the quality of nursing care, enhanced communication and collaboration among healthcare providers, leading to improved patient outcomes. Besides, END improved documentation accuracy, time efficiency, operational efficiency, error reduction and patient safety. However, some challenges such as monitoring and evaluation from nurse managers regarding the accuracy and quality of documentation and the need for computer skills training are also needed. It Concluded the electronic nursing documentation has great potential to improve the quality of patient care in hospitals.

**Keywords:** *Electronic Nursing Documentation; Systematic Literature Review; Quality of Care*

## Work-Related Musculoskeletal Disorders among Orthopaedic Nurses in Malaysian Trauma Centre

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### Abstract

**Introduction:** Work-related Musculoskeletal Disorder (WMSDs) is one of the issues that constrain nurses from giving attention to patient care. Nurses should be healthy first to give optimum care to the patient. Various aspects of the job are some of the burdens that lead to musculoskeletal disorders (MSDs) that can interrupt the workability of the nurses. Nurses are particularly at risk of developing WMSDs due to the nature of their work. In orthopaedic nursing, the care and management of patients involve musculoskeletal disorders, which often require physical exertion and manual handling. **Objective:** This study aim to identify the prevalence of WMSDs and determine the risk factors of the WMSDs among orthopaedic nurses. **Methods:** This study used a cross-sectional study that was carried out on 155 orthopaedic nurses in Hospital Kuala Lumpur. Convenience sampling was used to collect the data. A self-administered question has been given to the respondent for data collection. The Nordic Musculoskeletal Question (NMQ) was used to evaluate the pain or discomfort in the body part. **Results:** A very high prevalence of WMSDs in the past 12 months and during the last 7 days with 32.9% reported that the pain has prevented them from doing their normal work for the past 12 months. The most reported WMSD is 'lower back pain', followed by 'neck pain' and 'shoulder pain'. The study revealed that the risk factors "Lifting or transferring dependent patients" and the activity of "Treating a large number of patients in a single day" have the highest mean scores. **Conclusion:** In conclusion, the prevalence of WMSDs among orthopaedic nurses in Hospital Kuala Lumpur was high and requires a multifaceted approach involving ergonomic improvements, staff education, and organizational support. Strong management support and policy implementation are crucial for the success of these interventions.

**Keywords:** Orthopaedic Nurse; Prevalence; Risk Factors; Work-Related Musculoskeletal Disorder

## The Effect of Virgin Coconut Oil on Diaper Rash in Infants

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### Abstract

Diaper rash is a skin problem in the genital area of infants characterized by the appearance of red spots on the skin. Baby's skin is still sensitive, especially because the epidermis or the outermost layer of the skin is still in the developmental stage. Diaper rash is one of the most common skin conditions in infants. Diaper rash usually occurs on the buttocks, groin, and genital area of the baby and can make it difficult for the baby to become fussy. The purpose of this study was to determine the effect of virgin coconut oil on diaper rash in infants. The method used is Systematic Literature Review through Pubmed, Sage Journal, IEEE Journal, JMIR, and Google Scholar. The keywords used are Diaper Rash, VCO (Virgin Coconut Oil) and research results in the period 2019-2024, by selecting articles so that 13 journal articles were found. The results of the research from 13 articles, obtained significant results after being given virgin coconut oil therapy actions mostly get a p value  $<0.05$  in all articles. It is proven that the administration of virgin coconut oil with interventions carried out 2 times a day in the morning and night is effective for preventing diaper rash in infants. The conclusion of the study was that virgin coconut oil was proven to reduce the occurrence of diaper rash in infants. Advice to mothers is that VCO is safer than using chemicals, so mothers who experience diaper rash in their babies are expected to use virgin coconut oil to alleviate the problem of diaper rash.

**Keywords:** *Diaper Rash; Infants; VCO (Virgin Coconut Oil)*

## Comparison of the Inhibitory Potential of Aqueous and 96% Alcohol Fractions of Ketepeng Cina (*Senna alata*) Leaf Extracts Against the Growth of *Staphylococcus aureus*

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### Abstract

One of the main bacteria that causes skin diseases is *Staphylococcus aureus*. Antibiotics are often used to treat bacterial infections, but excessive use of antibiotics can lead to bacterial resistance. To address the issue of antibiotic resistance, research focused on developing alternative medicines from natural materials that are safer and more effective is needed. The aim of this study was to compare the inhibitory effects of the aqueous and 96% alcohol fractions of *Senna alata* (Ketepeng Cina) leaf extract against *Staphylococcus aureus*. The method used was a laboratory experiment with a completely randomized design (CRD). The samples in this study were *Staphylococcus aureus* bacteria grown in pure cultures using nutrient agar media. The extract was obtained from the maceration of *Senna alata* plants and concentrated using a rotary evaporator. The treatment was divided into four concentrations: 40%, 50%, 60%, and 70%, with four repetitions for each concentration. The inhibitory effect was measured by measuring the inhibition zone using calipers with an accuracy of 0.02 mm around the paper disc. In this study, the data were processed using a MANOVA test, where a normality test was first conducted as a prerequisite, with the normality test results for the aqueous fraction being 0.156 and the 96% alcohol fraction being 0.652. The MANOVA test results showed that the administration of *Senna alata* leaf extract in both the aqueous and 96% alcohol fractions had a significant effect on the growth of *Staphylococcus aureus*, with  $p$ -values of 0.000 ( $P < 0.05$ ) for each. Further analysis with the Post Hoc test revealed that an increase in the concentration of *Senna alata* leaf extract was associated with a wider inhibition zone. In conclusion, the aqueous and 96% alcohol fractions of *Senna alata* leaf extract have significant potential in inhibiting bacterial growth, which could be developed as an antibacterial therapy.

**Keywords:** *Senna alata*; Aqueous Fraction; 96% Alcohol Fraction; *Staphylococcus aureus*

## The Development of Pregnancy Exercise Android Model to Reduce Lowerback Pain Complaints Among Trimester III Primigravida

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### Abstract

A woman's physiological adaptation during pregnancy often causes problems due to the complaints she experiences. Various problems that arise in the third trimester of pregnancy are psychological problems that pregnant women often complain about, such as anxiety and pain. The aim of this research is to determine the effect of pregnancy exercise on reducing pain levels in the third trimester in pregnant women at the Nanggalo Community Health Center, Padang City, Indonesia. Research design This research uses mixed methods. Mixed or mixed methods is a research approach that combines quantitative research with qualitative research. A mixed methods approach is needed to answer the problem formulation in this research. Field research with a mixed research approach was chosen by the researcher based on the aim of better understanding the research problem by converging or triangulating quantitative data in the form of numbers and qualitative data whose data analysis is in the form of detailed descriptions. Apart from that, to help explain further the statistical results that have been obtained through the questionnaire results, the researcher will then follow up by interviewing or observing respondents to obtain real data from the reality in the field. In this research, researchers used a sequential explanation method. design type. Sequential explanatory design is a combined research method that combines quantitative and qualitative research methods sequentially, where in the first stage the research is carried out using quantitative methods and in the second stage it is carried out using qualitative methods. Results :After analysis was carried out based on the results of the linear regression test between the independent variables included in this regression model, namely pain management. From the results of the table above, it can be concluded that the R Square (R<sup>2</sup>) value = 0.289, which means that the education variable influences pain intensity by 28.9% with a fairly strong correlation strength (R = 0.537) with a significant *p* value = 0.000. This means that there is an influence and regression relationship between pain management which can influence the intensity of pain in pregnant women. From these results, the following regression equation was obtained; Pain intensity in pregnant women = 1.799 + 0.521 (pain management). Based on the equation model, it was concluded that the constant value (*a*) was -1.799. In conclusion, if the independent variable for pain management remains constant, the value of applying pain intensity will remain at 1.799. Pain management will increase pain intensity in third trimester pregnant women by 0.521. The most dominant factor influencing pain intensity is pain management carried out by pregnant women in the third trimester.

**Keywords:** *Development of an Android Pregnancy Exercise Model; Back Pain; Primigravida Women Trimester III*



## The Effectiveness of Recovery Nursing Care in Reducing Relapse Symptoms in Schizophrenia Patients

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### Abstract

Schizophrenia is a chronic mental disorder characterized by disturbances in the process of thinking, perception, emotion, and behavior, which can have a significant impact on the sufferer's daily life. Relapse of schizophrenia symptoms, including hallucinations, delusions, and cognitive impairment, is one of the main challenges in long-term patient management. This relapse not only reduces the patient's quality of life, but also increases the burden on families and health workers and the cost of care. One approach that can help overcome relapse is recovery nursing care, which focuses on holistic recovery, including the patient's psychological, social, and physical aspects. This approach not only aims to reduce symptoms, but also improves the patient's ability to function independently and participate in their social life. Although many studies have discussed the management of schizophrenia symptoms, studies on the effectiveness of recovery nursing care in reducing relapse symptoms are still limited. This study aims to evaluate the effectiveness of recovery nursing care in reducing relapse symptoms in schizophrenia patients in the community. This study used a quasi-experimental design with pretest-posttest with a control group. A total of 120 schizophrenia patients in the community were divided into two groups, namely the intervention group who received recovery nursing care and the control group who received care according to the protocol at the health center. The intervention was carried out for 12 weeks, with relapse symptoms measured using the Positive and Negative Syndrome Scale (PANSS) before and after the intervention. The results showed that there was a significant decrease in relapse symptoms in the intervention group compared to the control group ( $p < 0.05$ ). Aspects that improved included positive, negative, and cognitive symptoms. In addition, the quality of life of patients in the intervention group also increased significantly. The conclusion of this study is that recovery nursing care is effective in reducing relapse symptoms in schizophrenia patients. The implementation of this care is recommended in daily nursing practice to improve recovery and quality of life for schizophrenia patients.

**Keywords:** Schizophrenia; Relapse; Recovery Nursing Care; Schizophrenia Symptoms; Quality of Life

## Development Stunting Prevention Behavior through Family Support and Cultural Approach: A Case Study from Serang City Indonesia

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### Abstract

**Background:** The model for handling stunting generally implemented by the Indonesian government still ignores the unique characteristics of regions that have different cultural backgrounds from community groups in general. Local problems play an important role so that the prevalence of stunting in Indonesia does not experience the same burden between provinces or between regions in the same province. Serang City, Cilegon City, Tangerang Regency and Lebak Regency are in the yellow stunting zone category with a prevalence level of 20 to 30%. **Objectives:** This case study aimed to find out how to develop a family support model and cultural approach to stunting prevention behavior in Serang City, Indonesia. **Methods:** The research consisted of three stages: 1) qualitative analysis for module development materials, 2) quantitative analysis with an experimental approach to determine the benefits of the module targeting cadres and 3) quantitative analysis with an experimental approach to determine the benefits of the module targeting pregnant women. **Results:** The results showed that there was a change in the pregnant woman behavior to take care of themselves more independently through the stunting prevention compared to when they were more dependent on their families before they utilized the modul stunting intervention (SNR). **Conclusion:** This study proved that family support and cultural approaches can be improved by using a stunting prevention module (SNR) for pregnant women.

**Keywords:** Cultural Approach; Family Support; Stunting

## The Relationship between Bullying Behavior and Teenagers' Self-Esteem

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### Abstract

**Introduction:** The phenomenon of bullying behavior is a form of teenage acquaintance but is rarely recognized by people. Indonesia is the fifth country that experiences the largest number of bullying cases in the world. Bullying behavior often occurs in education units, the majority of which occurs at elementary and junior high school levels, and a small number occurs in religious education units. Teenagers who have high self-esteem tend to have extensive knowledge, are selfless and do not need encouragement from other people to do something. **Objective:** This research aims to find out whether there is a relationship between bullying behavior and teenagers self-esteem. **Research Method:** This research uses descriptive correlational. The population in this study were students in grades 7, 8, and 9 at junior high school in Bekasi City, totaling 1,089 population with 300 samples. The sampling technique uses purposive sampling. Data collection techniques used bullying behavior and self-esteem questionnaires. **Research Results:** The majority of respondents were male, namely 125 respondents (41.7%), aged 11–13 years (early teens), and 159 respondents (53%). Bullying behavior was high, with as many as 46 respondents (15.3%) and teenagers involved in bullying behavior as many as 254 respondents (84.7%). Sufficient self-esteem was among 250 respondents (83.3%), and teenagers who had high self-esteem were among 50 respondents (16.7%). The chi square statistical results obtained the asymptote value. Sig. (2-sided) 0.000 or  $p < 0.005$ . **Conclusion:** There is a relationship between bullying behavior and the self-esteem of teenagers in the city of Bekasi.

**Keywords:** Bullying Behavior; Self-Esteem; Teenagers

## Knowledge and Attitudes of Using Fe Tablets among Women in Sukamekar Village in Efforts to Prevent Stunting

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### Abstract

Iron or Fe deficiency is still a micronutrient problem in the world, especially in Indonesia. The cause of iron deficiency is lack of knowledge and unsupportive attitudes. The aim of this research is to determine the knowledge and attitudes towards using Fe tablets among Sukamekar village women in an effort to prevent stunting. The research uses an analytical survey method through a cross sectional approach, namely collecting data all at once or at one time. The data collection technique was through distributing questionnaires, the technique used to determine the sample in this research was Non Random Sampling, using the Purposive sampling technique, data analysis using SPSS vers.22 with the Chi – Square test. The results of this research from 300 respondents showed knowledge of the use of Fe tablets in women in preventing stunting in Sukamekar Village, the characteristics of the respondents were aged 31-38 mostly 90 (30%) respondents, high school education as many as 137 (45.7%). %, employment not working 234 (78%). The results of sufficient knowledge were 131 (43.7%), 148 (49.3%) respondents had a good attitude. Bivariate analysis obtained a  $p$  value of 0.015 ( $<p=0.005$ ). The conclusion from this research is that there is a relationship between knowledge and attitudes towards using Fe tablets in women in preventing stunting in Sukamekar Village with a  $p$ -value of 0.015.

**Keywords:** Fe tablets; Knowledge; Stunting

## The Impact of ISBAR<sub>3</sub> Implementation on Nursing Handover Quality and Patient Satisfaction Improvement at Pariaman Regional Public Hospital

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### Abstract

Effective communication among healthcare professionals is a crucial aspect of minimizing medical errors and improving patient safety. ISBAR<sub>3</sub> (Identity, Situation, Background, Assessment, Recommendation, Read-back, Risk) is a structured communication method designed to enhance the quality of information exchange in medical settings. This study aims to evaluate the impact of ISBAR<sub>3</sub> implementation on nursing handover quality and patient satisfaction at Pariaman Regional Public Hospital. The study employed a quasi-experimental design with a pre-test and post-test approach. The sample consisted of 40 nurses and 100 patients selected using a purposive sampling technique. Nurses were trained to use the ISBAR<sub>3</sub> method for handovers over a period of one month. Handover quality was assessed using a standardized observation sheet before and after the intervention. Patient satisfaction was measured using a validated patient satisfaction questionnaire. Data were analyzed using paired *t*-test and independent *t*-test with a significance level of  $p < 0.05$ . The results showed a significant improvement in nursing handover quality after ISBAR<sub>3</sub> implementation (pre-test:  $65.3 \pm 8.7$ ; post-test:  $86.2 \pm 7.4$ ;  $p < 0.001$ ). Patient satisfaction also increased significantly (pre-test:  $72.8 \pm 9.2$ ; post-test:  $88.5 \pm 6.8$ ;  $p < 0.001$ ). Further analysis revealed a strong positive correlation between improved handover quality and increased patient satisfaction ( $r = 0.78$ ;  $p < 0.001$ ). The implementation of the ISBAR<sub>3</sub> method effectively enhanced nursing handover quality and patient satisfaction at Pariaman Regional Public Hospital. These findings support the use of ISBAR<sub>3</sub> as a standard tool for nursing handovers to improve communication among nurses and the quality of patient care.

**Keywords:** ISBAR<sub>3</sub>; Nursing Handover; Patient Satisfaction

## The Effect of Auditory Stimulation Therapy of Murottal Al Qur'an on Stress and Anxiety of Patients in the Intensive Care Unit: Scoping Review

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### Abstract

Patients with critical conditions who are treated in the Intensive Care Unit (ICU) can experience severe anxiety to the point of panic, due to environmental stressors, invasive medical procedures, fear of death, loneliness and helplessness. Patient anxiety can affect physiological conditions and reduce the patient's quality of life. Non-pharmacological interventions in nursing practice to reduce patient anxiety include auditory stimulation therapy, one of which is murottal therapy. The aim of this study is to analyze research articles on the effect of murottal therapy auditory stimulation on patient anxiety in the Intensive Care Unit (ICU). The study method is a literature review by searching publication results on the Google Scholar, Somantic Scholar Proquest and Pubmed databases between 2014-2024 using the PRISMA method. The keywords used are murottal auditory stimulation AND anxiety AND intensive care unit. Search for articles related to 9 sources included in the inclusion criteria. The conclusion of this study is that there is an effect of murottal therapy auditory stimulation on stress and anxiety in patients in the ICU. Murottal Al-Qur'an therapy is one intervention that can be implemented or carried out by nurses to help reduce the stress and anxiety levels of patients in the ICU.

**Keywords:** *Anxiety and Intensive Care Unit; Murottal Auditory Stimulation; Stress*



## Perceptions and Barriers to the Use of Electronic Partographs in Childbirth by Midwives

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### Abstract

The partograph is an important tool in labor monitoring and management to improve maternal and newborn outcomes by detecting early complications during labor. Thanks to the development of technology, electronic partographs have been introduced as a more efficient and accurate alternative to traditional paper-based partographs. The aim of this review is to analyze studies related to the use of electronic partographs to evaluate the effectiveness, user acceptance, and challenges of implementing electronic partographs in various health facilities. Data was collected from various scientific journals, research reports, and articles published between 2019 until 2023. Aspects evaluated in this review included accuracy of data recording, ease of use, user satisfaction, clinical impact, and technical challenges. Literature review of the electronic partographs show significant improvements in the accuracy of data recording and monitoring of labor progress. Studies indicate that electronic partographs can reduce human error and provide real-time updates critical for early detection of labor complications. Most healthcare professionals report ease of use and time efficiency as primary benefits, although acceptance rates vary based on training and available technical support. The main challenges identified include technical issues, such as software failures and limited internet connectivity, as well as resistance to changing from paper to electronic systems. As a conclusion, electronic partographs have great potential to improve labor management and maternal-neonatal outcomes. However, successful implementation depends on improved technology infrastructure, comprehensive training, strong technical support, and effective change management strategies. Further long-term research and cost-benefit analyzes are needed to evaluate impact and cost-effectiveness of electronic partographs.

**Keywords:** *Electronic Partograph; Labor Management; Recording Accuracy*

## Nurses' Knowledge of 6 Patient Safety Goals Based on Joint Commission International (JCI) and Work Experience with The Attitude of Implementing Patient Safety at Murni Teguh Memorial Hospital

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### Abstract

**Introduction:** Currently, the demands for health services are increasing, health problems are increasingly complex, the development of nursing science and technology is increasingly sophisticated, and in addition, the requirements of the world of work increasingly demand that nursing staff have knowledge, work experience and a good attitude in implementing patient safety, so that this is very urgent for the health sector, especially the nursing sector. **Research Methodology:** This study is a quantitative study with a cross-sectional design. The population is all nurses in the inpatient room at Murni Teguh Memorial Hospital. Sampling was determined by the simple random sampling method of 246 nurses. **Results:** The results of the study showed that nurses' knowledge of patient safety was in the sufficient category, namely 148 respondents (60%), work experience in the Pre-Clinical Nurse category was 88 respondents (35.8%) and attitudes were in the sufficient category were 140 respondents (56.9%). Based on the Pearson Chi Square test analysis, the results showed that there was a relationship between nurses' knowledge and attitudes towards implementing patient safety ( $P$  value = 0.001 <  $\alpha$  = 5%) and there was a relationship between work experience and attitudes towards implementing patient safety ( $P$  value = 0.035 <  $\alpha$  = 5%). **Discussion:** The results of this study are in line with research by Imania, 2019, that there is a relationship between knowledge and nurses' attitudes towards the implementation of patient safety, and also research Firmansyah, R., & Tri, H.L., 2024 which shows that there is a relationship between knowledge and patient safety attitudes. Attitudes can be changed and formed, with increasing knowledge and work experience, attitudes can be formed to be better, as is the case for nurses in the application of patient safety. In this study, the results showed that there is a relationship between knowledge, work experience and the application of patient safety required by the community according to International Standards (JCI). **Conclusion:** There is a relationship between nurses' knowledge of the 6 patient safety targets based on JCI and work experience with attitudes towards implementing patient safety at Murni Teguh Memorial Hospital, but nurses' knowledge and attitudes are still in the sufficient category, it is hoped that Murni Teguh Memorial Hospital will make patient safety a priority.

**Keywords:** Nurse's Attitude; Nurse's Knowledge; Patient Safety; Work Experience

## Perception Around Perinatal Mental Health Among Indigenous Adolescent

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### Abstract

Perinatal mental health conditions are on the rise and are a global concern. Low- and middle-income country (LMIC) adolescents are 2.11–5.4 times more likely to experience perinatal mental disorders than adult women. Poor adolescent mental health can lead to various risky behaviors, with long-lasting effects. Indigenous women and children generally experience worse physical and mental health outcomes compared to non-indigenous counterparts. Indigenous women are at higher risk of mental health problems during the perinatal period. This study aims to explore the perspectives of indigenous adolescents on mental health. The study utilized a qualitative research approach and targeted adolescent girls from the indigenous community of Kampung Adat Cirendeu Cimahi. Participants were selected using convenience sampling, and semi-structured, in-depth interviews were conducted. An inductive qualitative approach with thematic analysis was used. The study involved 16 adolescents aged 10–19 years, and five themes were identified: perceived susceptibility and fears, perceived severity, perceived benefit, perceived barriers, and self-efficacy. The research revealed that there are varying opinions among adolescent girls regarding mental health problems in Kampung Adat Cirendeu Cimahi, some adolescent girls view mental health problems as embarrassing or disgraceful, while others believe it is not embarrassing to discuss these issues with a therapist.

**Keyword:** *Indigenous; Perception; Perinatal Mental Health*

## Literature Study: Spiritual Assessment in Intensive Care Unit (ICU)

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### Abstract

**Background:** Spiritual Nursing Care is a primary need for critically ill patients in the Intensive Care Unit (ICU). The spirituality within the patient is considered to be a source of healing for critically ill patients. A major challenge for a nurse is to provide nursing care and integrate spiritual concepts ranging from knowledge, and attitudes in providing nursing care and the implementation of spiritual nursing care. Providing spiritual needs for critically ill patients is not only beneficial for the patient but also has an impact on the professional performance of a nurse. **Objectives:** This literature review aims to explore various spiritual assessment approaches and spiritual assessment tools in the ICU. **Methods:** This study was obtained from three databases, namely Google Scholar, PubMed and Scince Direct using inclusion and exclusion criteria. Keywords used in this literature search include: "spiritual assessment and ICU", "spiritual care + intensive care unit", "spiritual care and critical illness", and "spiritual assessment tools and ICU". Results: There are 5 variables in conducting a spiritual assessment of critical patients, including the medical system in spiritual care, religious communities that support spirituality in the relationship between patients and doctors, end-of-life care and quality of life in patients who are nearing death or nearing death. **Conclusion:** There are no significant Spiritual Assessment Tools standards for exploring or assessing the spiritual level of critical patients in the ICU.

**Keywords:** *Assessment Spiritual; Intensive Care Unit (ICU); Spiritual*

## Improving Quality of Life (QoL) Using Mindfulness in CKD HD Patients

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### Abstract

**Introduction:** Hemodialysis therapy was recognized as the primary intervention for Chronic Kidney Disease (CKD) patient. Previous study indicated that CKD patient who underwent haemodialysis has lower level of quality of life compare than general population. **Objective:** The aim of this study to determine effect of the mindfulness in improving quality of Life (QoL) on patients with Chronic Kidney Disease who underwent hemodialysis. **Material and Method:** This study used a quasi-experimental design with pretest and posttest control group design. Data was collected from 60 respondents who selected by using purposive sampling technique. Instrument used is KDQOL-SF version 1.3, and the data bivariate analyzed by paired *t*-tests and independent *t*-tests. Result: Intervention group: age 56-65 years 14 (46,7%), Male 17 (56,7%), Married 30 (100%), Senior high school 17 (56,7%), and unoccupied 12 (40%). Control group: age 56-65 years 11 (36,7%), Male 17 (56,7%), Married 27 (90%), senior high school 19 (63,3%), and unoccupied 14 (46,7%). Bivariate analysis: dependent *t* test *p* value 0,00 and independent *t* test *p* value 0,00. **Conclusion:** Mindfulness intervention was positively affect to the QoL in CKD HD patients and recommended to health care professionals to apply mindfulness to the better Patient's quality of life.

**Keywords:** Chronic Kidney Disease; Hemodialysis; Intervention; Mindfulness; Quality of Life

## Precipitating Factors of Toddler Stunting in Bogor Regency

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### Abstract

Stunting has serious long-term impacts on individuals and society, including decreased productivity, poor quality of human resources and high economic burden. In 2022, one from five Indonesian toddlers experienced stunting. Indonesia's stunting prevalence rate ranks 27<sup>th</sup> out of 154 countries that have stunting data, making Indonesia ranked 5<sup>th</sup> among Asian countries. The purpose of this study was to identify precipitating factors of stunting in toddlers in Bogor Regency. This research method is a quantitative study with an analytical method and uses a cross-sectional research design. The sample in this study were mothers who have toddlers in Bogor Regency, with a sample size of 210 mothers. The sampling technique used in this study was cluster random sampling. Based on the results of the study, the number of toddlers experiencing stunting in Bogor Regency was 70 toddlers (33.3%). There is a relationship between maternal education ( $p$ -value = 0.009), gender of toddlers ( $p$ -value = 0.049), and maternal behavior in providing additional food ( $p$ -value = 0.002) with the incidence of stunting in toddlers in Bogor Regency. However, there is no relationship knowledge and attitude of mothers with the incidence of stunting in toddlers in Bogor Regency. To anticipate and reduce the occurrence of stunting, families, especially mothers, need to pay attention to fulfilling nutritional intake so that toddlers' physical fitness remains stable and so that toddlers are free from stunting. In addition, during pregnancy, mothers should routinely consume foods that contain lots of nutrients.

**Keywords:** Maternal education; Nutritional intake; Stunting



## Bibliometric Analysis of Factors Associated with the Incidence of Rehospitalization in Congestive Heart Failure Patients Using VOS-Viewer

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### Abstract

Congestive heart failure is a condition where the heart pumps blood inadequately so that the body's needs such as nutrition and oxygen are not fully met. One of the complications that occurs is excess fluid or hypervolemia which is characterized by edema, increased body weight and shortness of breath. The aim of this study was to identify patterns or trends in scientific publications regarding factors that cause re-hospitalization in congestive heart failure patients. This study uses bibliometric methods to examine overall research regarding factors that influence rehospitalization rates in congestive heart failure patients. VOSviewer is used to extract search results after the Publish or Perish application is used to search the database. The findings show that the terms have been characterized as the number of basic terms that are expected to utilize VOS-watcher. After investigation, there are 5 groups (red, blue, purple, yellow, and green) which describe the relationship between different subjects. The VOS viewer offers three different visualizations to demonstrate bibliometric mapping: network visualization, overlay visualization, and density visualization. Keywords such as "heart failure," "hospitalization," "cardiovascular," "risk factors," and "readmission" were most frequently used. I searched for a number of scattered articles about examining factors related to rehospitalization in patients with congestive cardiovascular disease using VOS-Watcher, and I found 10 Rankin concentrations related to this, no one of which came from Indonesia. This bibliometric technique is very important for determining uniqueness when conducting additional research because it highlights key themes in each field of science or previous research related to the analysis of factors associated with re-hospitalization in congestive heart failure patients.

**Keywords:** Analysis; CHF; Factor; Rehospitalization

## Effect of 96% Ethanol Extract of Turmeric as Antifertility on Testicular Weight in Rats

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### Abstract

**Background:** The birth rate in Indonesia is high enough that the government created a family planning program to limit the birth rate. Health profile data in 2018, the number of births in Indonesia reached 4,840,411 million people, of which 2,423,786 million were male and 2,322,652 million were female. **Objective:** To determine the effect of testicular weight on the effectiveness of turmeric extract as an antifertility agent. **Methods:** This research is experimental. After going through an adaptation period of 2 weeks, the experimental animals were given turmeric extract orally for 30 days, their reproductive organs, namely the testicles, were taken to see the weight of the testicles, and sperm was taken from the vas deferens of male rats. **Results:** The test requirements carried out are the normality test (Kolmogorov-Sminov) and the homogeneity test (Homogeneity of Variances). A significance value of  $P>0.05$  was obtained, indicating that the data on the proportion of testicular weights at all test doses compared to the control and at all test doses was not statistically significant, based on the significance value of the one way ANOVA test, the average  $r$  was 0.079 ( $P>0.05$ ). **Conclusion:** The administration of 96% turmeric ethanol extract at a dose of 25 mg/KgBW, 50 mg/KgBW, and 100 mg/KgBW for 30 days did not affect the weight of rat testicles. It is necessary to isolate compounds in the 96% ethanol extract of turmeric to determine its antifertility effect.

**Keywords:** Antifertility; Ethanol 96%; Rats; Testicular Weight; Turmeric

## Cognitive Behavioral Therapy to Reduce Anxiety in Chemotherapy Patients

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### Abstract

Cancer is a global health problem that is increasing in Indonesia. Cancer patients often experience anxiety during chemotherapy treatment. Anxiety in cancer patients is caused by uncontrolled anticipation regarding side effects from treatment, life changes, and feelings of fear of disability and death. Unmanaged anxiety can lead to decreased quality of life, reduced health conditions, and decreased positive feelings, creating additional burdens during treatment. One form of non-pharmacological therapy that is effective in reducing anxiety in patients with neoplasms is cognitive behavioral therapy. Cognitive Behavioral Therapy (CBT) has been proven to be effective in reducing feelings of chemotherapy anxiety. They are analyzing the effect of CBT on anxiety in patients undergoing cancer treatment at Sembiring General Hospital. This research involved 18 patients using quantitative methods by giving actions to the subjects before and after. Anxiety levels were measured before and after the intervention using STAI - T (State-Trait Anxiety Inventory). This research shows a significant reduction in patient anxiety levels with a statistical test (Paired T-Test) between anxiety levels before and after CBT intervention with a  $p$ -value of 0.026 ( $p = 0.000 < 0.05$ ). The majority of respondents experienced a decrease in anxiety from moderate to mild after CBT therapy. In contrast, 2 respondents (11.1%) initially experienced almost severe levels of anxiety, but after CBT intervention, it became a moderate level of anxiety. These findings are consistent with previous research and provide strong evidence that CBT can be an effective therapeutic approach to overcoming feelings of anxiety in cancer patients undergoing chemotherapy treatment in Indonesia.

**Keyword** : Cancer, CBT, Anxiety

## An Investigation on the Role of Student Ethics and Data Privacy in the Implementation of Educational Technology

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### **Abstract**

This research was conducted to investigate the privacy issues and ethical considerations arising from the usage of technology in educational settings by both students and teachers. The purpose of this research was to examine these issues and analyze their significance. The role of this research was to investigate how social responsibilities like protecting student data were connected to the usage of technology in educational settings. This research resolved to investigate the policies and procedures that were currently in place, to determine the degree to which they safeguard the confidentiality of students and promote ethical behaviour in areas where instructional technology was used. The use of this research was to determine the most effective methods for ensuring that technology was used in a manner that was both appropriate and secure inside educational institutions. To accomplish this objective, case studies and legal systems were researched and examined in great detail.

**Keywords:** *Deployment; Educational Technology; Ethics; Student Privacy*

## Exploring the Impact of Professional Development Programs on Early Childhood Education Teachers' English Pedagogical Practices: A Comparative Study

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### Abstract

Every day brings new challenges for language teachers. In response, they strive to incorporate the most suitable learning theory, strategy, technology, resources and aids into their lessons to help their students develop contextualised knowledge. Doing so allowed him to think about problems and difficulties and find solutions by combining his expertise with his peers. Because of this, they can draw on both their own and their colleagues' experiences. The researcher performs this repeatedly so the researcher can overcome social and psychological barriers and thrive in classrooms, which was particularly important when teaching a second or foreign language. One reason they did this was to help his students learn a new language. To do this, they follows the study's results as a roadmap while also conducting his research, reading relevant scholarly articles, or attending job-specific training. A teacher who engages in reflective practice brings to the classroom not just their expertise but also all of their prior learning, practical experience, and relevant theoretical frameworks. A language instructor keeps tabs on their students' responses in class, analyses the data, and then uses it to guide their instruction and help their students improve their language skills. After some self-reflection, the educator decides that the previously selected theory needs some kind of adjustment or revision. A classroom might be likened to a laboratory in this regard as it was the place where theoretical knowledge about teaching was put into action. While keeping an eye on their pupils' answers, teachers were also collecting data.

**Keywords:** *Professional Development; Early Childhood Education; English Pedagogy; Comparative Study*

## Evaluating the Validity and Reliability of the Self-Efficacy Questionnaire

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### Abstract

**Introduction:** Self-efficacy is an important factor for people with diabetes mellitus (DM) because it greatly influences their ability to perform self-management. High self-efficacy is considered crucial for good and sustainable diabetic self-management. When self-efficacy is high, self-management behavior improves. Thus, people with diabetes need to assess their self-efficacy to determine if efforts are necessary to enhance it for better diabetes self-management. The commonly used questionnaire to evaluate the self-efficacy of people with diabetes is the Diabetic Management Self-Efficacy Scale (DMSES), designed by Van der Bijl, Poelgeest-Eeltnik, and Shortridge-Baggetts. This questionnaire consists of 15 items covering diet (meal planning) (8 questions), exercise (1 question), blood sugar monitoring (3 questions), therapy (2 questions), and foot care (1 question). It uses a Likert scale of 1-5. This study aims to evaluate the validity and reliability of the DMSES questionnaire before it is used with DM patients. **Methods:** This cross-sectional study involved 30 adults with diabetes mellitus who were still able to perform self-care. To evaluate the validity of the questionnaire, each variable/question score was correlated with the total score, then the decision on validity is made by comparing the correlation score of the results with the correlation score in the table. For reliability evaluation, the Cronbach's alpha score was compared with the correlation score in the table. **Results:** The self-efficacy questionnaire (DMSES questionnaire) showed moderate to strong correlations, with item correlation scores ranging from 0.550 to 0.867. After comparing these scores with the correlation scores in the table, it was found that the correlation scores for all items were higher than those in the table ( $r_{\text{item}} > 0.388$ ), indicating that all 15 items are valid. The resulting Cronbach's alpha score was 0.934, which is higher than the correlation score in the table, indicating that all 15 items are reliable. **Conclusion:** Based on the evaluation of the validity and reliability of the DMSES questionnaire, it can be concluded that the questionnaire is valid and reliable for measuring the self-efficacy of diabetes mellitus patients.

**Keywords:** Diabetes Mellitus; Questionnaire; Reliability; Self-Efficacy; Validity



## Effectiveness of Bounding Attachment on Parental Stress in the Neonatal Intensive Care Unit

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### Abstract

**Background:** Mothers who have premature babies in neonatal intensive care unit (NICU) care will experience anxiety/stress related to the baby's condition and the care situation. This stress will affect the psychological well-being and relationship between mother and baby. Bounding attachment is expected to reduce parental stress in this situation. The purpose of this study was the effect of bounding attachment on parental stress in the NICU. **Methods:** The design of this study was quasi-experimental with a pre-post test approach. Respondents were 30 mothers with premature babparental stresies aged 28-34 weeks in NICU care. The intervention was in the form of bounding attachment which was carried out for 1 hour, twice a day (morning and evening), where the mother interacted physically and emotionally with the baby, such as hugging, rubbing the back, and praying for the baby. Parental stress was measured using the Parent Stress Scale before and after 4 sessions of bounding attachment. **Results:** The average age of the mother was 28.90 ( $\pm 5.887$ ). Most mothers had high school education (43.3%), first pregnancy (33.3%), single pregnancy (90%), and worked (46.7%). The average parental stress before the intervention was 131.33 ( $\pm 21.613$ ). After the intervention, the average parental stress decreased to 75.63 ( $\pm 16.253$ ). The results of the analysis showed a significant decrease in parental stress after bonding attachment ( $p$  value 0.00). **Discussion:** The results of the study indicate that bonding attachment is effective in reducing parental stress levels in mothers with premature babies in the NICU. This intervention can be integrated as part of NICU care to support maternal emotional well-being and improve the mother-infant relationship. **Conclusion:** Bounding attachment significantly reduces parental stress in mothers with premature babies in the NICU and can be effectively integrated into NICU care to enhance maternal emotional well-being.

**Keywords:** *Bounding Attachment; Parental Stress; NICU; Premature*

## Efficacy of Pharmacotherapies and Psychotherapies on the Health Status of Patients with Psychological Distress: A Meta-analysis

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### Abstract

Psychological distress, characterized by symptoms of depression, anxiety, and emotional suffering, significantly affects global populations, impairing daily functioning and reducing quality of life. This condition arises from a complex interplay of genetic, biological, cognitive, psychosocial, and environmental risk factors, including neurochemical imbalances, negative thought patterns, trauma, chronic stress, and social isolation. Effective management strategies for psychological distress include pharmacotherapies (e.g., antidepressants like Escitalopram, anxiolytics like Clonazepam), which provide symptom relief and improve mental health, and psychotherapies such as Cognitive Behavioral Therapy (CBT), mindfulness-based therapies, and Dialectical Behavior Therapy (DBT), which target maladaptive thinking patterns, enhance coping skills, and reduce emotional suffering. Among young adults, combining pharmacotherapy with psychotherapeutic approaches has proven particularly effective, addressing both biological and psychological components of distress, and improving overall well-being. Lifestyle modifications, including exercise, nutrition, sleep hygiene, and social support systems like peer support groups and family therapy, further enhance treatment outcomes. The study recommends a holistic, individualized approach to care, emphasizing early intervention, personalized treatment plans, and the integration of complementary therapies (e.g., yoga, and meditation) to optimize mental health outcomes. To promote long-term recovery, it is crucial to enhance access to mental health services, provide education to patients and families, and empower individuals to adopt healthy habits.

**Keywords:** *Psychological Distress, Depression, Anxiety, Emotional Suffering, Pharmacotherapy, Cognitive Behavioral Therapy, Mindfulness, Early Intervention, Young Adults, Holistic Care, Personalized Treatment*