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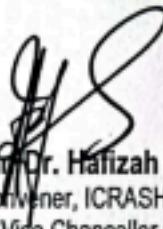
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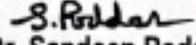
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Summit Hotel Subang USJ, Malaysia

Organized by:

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Deputy Vice Chancellor (Academic)
Lincoln University College, Malaysia


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Convener, ICRASH 2023
Deputy Vice Chancellor (Research & Innovation)
Lincoln University College, Malaysia



ICRASH 202325

International Conference on Recent Advancement in Sustainable Healthcare (ICRASH 2023)

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Venue: Summit Hotel Subang USJ,

Malaysia 23 & 24 May 2023

Date: rd _{th}

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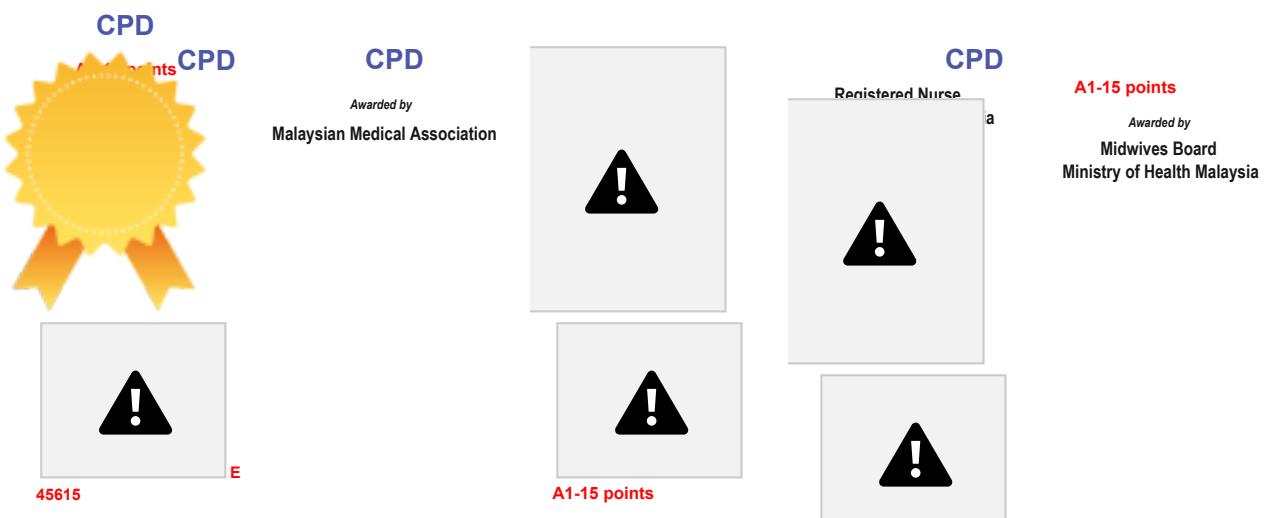
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A1-15

**Venue: Summit Hotel Subang USJ,
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SETARA-2019

Datuk Dr. Hjh. Bibi Florina Abdullah
Pro Chancellor
Lincoln University College, Malaysia

Message

I extend my warmest greetings and heartfelt welcome to the distinguished guests, esteemed colleagues, scientists, academicians, healthcare practitioners, and students, to this International Conference on Recent Advancement in Sustainable Healthcare (ICRASH 2023) organized by Lincoln University College, Malaysia. As the Pro-Chancellor of Lincoln University, Malaysia, it is my honor and privilege to address you today.

First and foremost, I would like to express my sincere gratitude to the organizers for giving me the opportunity to be a part of this revered crowd. I am truly humbled to stand before such an exceptional gathering of individuals who are dedicated to the fields of Healthcare, Nursing, Pharmacy, Biotechnology, and Environmental Sciences.

ICRASH 2023 is presumed to serve as a platform for knowledge exchange, collaboration, and exploration of innovative ideas that can revolutionize the field of sustainable healthcare. This

two-day conference has been meticulously designed to bring together experts, researchers, and healthcare practitioners from around the world to discuss the latest advancements, challenges, and opportunities in our respective disciplines.

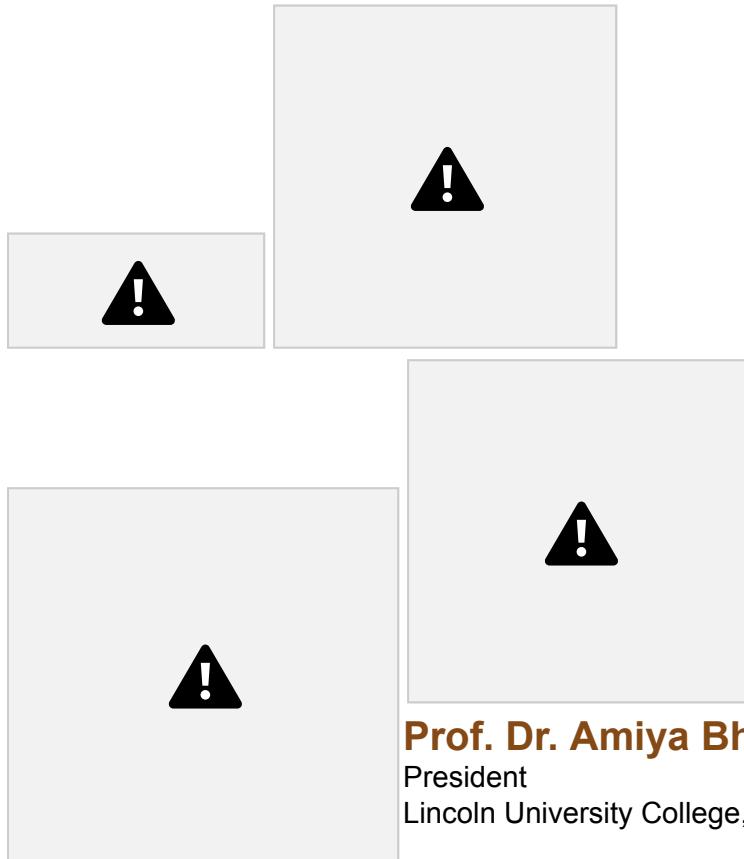
The importance of sustainable healthcare cannot be overstated in today's rapidly evolving world. As we face complex global health challenges, it is imperative that we foster an environment of collaboration and interdisciplinary approaches to find sustainable solutions. This conference will facilitate dialogue, inspire new research directions, and pave the way for future collaborations that will positively impact healthcare practices.

To the scientists, I encourage you to share your ground-breaking research and discoveries, for they have the potential to transform the way we approach healthcare. The ideas of the academicians, and their expertise can shape the minds of future generations, and their insights are invaluable in shaping the future of sustainable healthcare. Healthcare practitioners are at the forefront of delivering quality care, and their experiences and knowledge are vital in driving improvements in patient outcomes. As the students, are the torchbearers of innovation, so this conference will provide them with opportunity to learn, network, and contribute to the larger discourse. In present scenario, there is an urgent need for work that informs policy and practice to address the public health crisis arising from healthcare. A transformational vision is required to align research priorities to achieve a sustainable healthcare system that advances quality, safety, and value. So, this conference will instigate awareness of healthcare hazards and address the issues pertaining present situation. We will examine current ideas and efforts to advance sustainability solutions in the healthcare industry, in high-, middle-, and low-income countries alike, where the healthcare industry can be expected to grow the fastest.

During this conference, I invite you all to actively engage in discussions, deal with intriguing issues, and challenge the status quo. Let us take advantage of this unique platform to learn from each other, exchange ideas, and foster collaborations that will drive sustainable advancements in healthcare.

Once again, I extend my heartfelt welcome to each one of you. May this conference be a remarkable and enlightening experience for all of us, as we work together to shape the future of sustainable healthcare.

Thank you.



Message

Distinguished delegates, ladies, and gentlemen:

On behalf of Lincoln University College, Malaysia, a gracious welcome you to the "International Conference on Recent Advancement in Sustainable Healthcare (ICRASH 2023)". There is a greater consciousness today of the connections and interdependence of scientific research and

a better understanding and knowledge of environmental issues, not only to protect our fragile surroundings but also to ensure it is safe and healthy for present and future generations.

It is with immense pleasure and deep gratitude that I stand before you today as the President of Lincoln University, Malaysia, to welcome you all to this International Conference. This two-day conference, taking place on the 23rd and 24th of May 2023, has been meticulously curated to bring together brilliant minds and leading experts in the fields of Healthcare, Nursing, and Scientists, with a particular focus on the United Nations Sustainable Development Goals (SDGs).

The challenges we face in the realm of healthcare and sustainable development are immense, complex, and multifaceted. It is incumbent upon us, as scholars, researchers, and practitioners, to rise to the occasion and tackle these challenges aggressively. ICRASH 2023 serves as a paramount platform for knowledge dissemination, interdisciplinary collaboration, and the exchange of cutting-edge ideas that can pave the way for transformative advancements in healthcare and sustainable development.

As we embark on this intellectual journey together, it is crucial to recognize the critical role each one of you plays in this pursuit of excellence. The scientists and academicians here possess a wealth of expertise and radical breaking research, which is instrumental in shaping the future of healthcare. This conference is a podium for future of scientific inquiry, innovation, and sustainable development, bring invaluable real-world experiences, highlighting the practical implications of our collective endeavors.

With the United Nations SDGs serving as our guiding framework, let us delve into discussions and deliberations that transcend boundaries, disciplinary frontier, and conventional thinking. It is my fervent hope that this conference will foster a vibrant and stimulating environment, encouraging robust debates, the sharing of novel research findings, and the forging of collaborations for future sustainability. Together, we have the power to generate transformative ideas, initiatives, and policies that address the pressing healthcare challenges of our time while upholding the principles of sustainable development. Ensuring healthy lives and promoting well-being at all ages is essential to sustainable development. This conference will help us to be more aware of SDG 3 that aspires to ensure health and well-being for all, including to end the epidemics by 2030. It also aims to achieve universal health coverage and provide access to safe and effective medicines and vaccines for all. Supporting research and development for vaccines is an essential part of this process, as is expanding access to affordable medicines. So this conference will focus on providing more efficient funding of health systems, improved sanitation and hygiene, and increased access to physicians through which significant progress can be made in helping to save the lives of millions.

I extend my deepest appreciation to the organizers and the entire conference committee for their dedication, hard work, and unwavering commitment to making ICRASH 2023 a resounding success. I also extend my gratitude to every participant for gracing us with your presence and for your invaluable contributions to this



conference. May this conference be a catalyst for new discoveries, innovative solutions, and lasting collaborations that will shape the future of healthcare, nursing, and sustainable development. Let us seize this opportunity to make a meaningful impact and drive positive change on a global scale.

Thank you, and I wish you all a fruitful and inspiring conference.



SETARA-2019

Dato (Amb) Dr. Mohd Yusoff Bin A.

Bakar *Vice Chancellor & CEO*

Lincoln University College, Malaysia

Message

The International Conference on Recent Advancement in Sustainable Healthcare (ICRASH 2023), a two day conference featuring lectures and debates on healthcare, has officially begun. It gives us great pleasure to announce the beginning of this international conference. The conference will focus on sustainable healthcare and recent advancement in research in this field.

The corporate world is rapidly digitizing, dismantling traditional healthcare services and structures are becoming more preventive and user friendly. The basic idea behind the conference is to provide a platform for distinguished dignitaries to exchange new ideas and apply hands on experiences to build up new relationships in research. There is also a scope for future collaborations along with global partners. The conference will help to build a strong relationship between industry and academia. At the same time, the conference will help to bridge the gap between Biologists, Health officials, Nurses, Medical professionals, Microbiologists, Pharmaceutical Scientists, Physicians, and other delegates.

I gladly invite researchers and academics from around the world to take part in this conference so that we may all gain knowledge, and exchange and strengthen our connections and resources. So, in this international conference, I am here, to first of all thank all of you for coming to this conference and applaud your efforts which you are consistently putting for the growth and development of future sustainable healthcare services to the society.



Anthropometric Evaluation with Special Reference to Indian Tribal Populations: Past,

01

Present and Future

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Abstract

Tribes constitute approximately 10% of the total Indian population. They are found in most parts of the country and are generally economically deprived. The nutritional status and socio-demographic profile of tribal people are important issues in India due to their marginalization from the mainstream population with respect to varied facilities. However, data on their nutritional status and socio-demographic profile are limited. Anthropometry is a very useful and inexpensive method that can be utilized to determine the nutritional status of an individual. Since the last three decades, various anthropometric measurements and their cut-off points have been utilized in the evaluation of nutritional status. It has been observed that various tribal populations have high to very high rates of chronic energy deficiency (CED) based on their body mass index (BMI) values. These populations are experiencing extreme nutritional stress, which may have severe health implications with respect to morbidity and mortality. Although there is a gradual increase in knowledge about the nutritional and socio-demographic status of tribes since the last few decades there is still paucity of data and information on more than 600 tribes regarding their bio-social profile. Moreover, recent trends have indicated a new phenomenon of "dual burden" malnutrition. This presentation deals with the past, present and future of anthropometric-related studies on Indian tribals.

Keywords: *India; Tribe; Body Mass Index; Chronic Energy Deficiency*



Sustainable Healthcare in Era of Digitalisation

02

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Abstract

Sustainability in healthcare refers to the integration of environmental, social, and economic considerations into the delivery of healthcare services. It focuses on minimizing the negative impact of healthcare activities on the environment, promoting social equity and well-being, and ensuring the long-term viability of healthcare systems. Sustainable Healthcare system by the World Health Organisation (WHO) is a system that improves, maintains or restores health, while minimizing negative impact on the environment and leveraging opportunities to restore and improve it, to the benefit of the health and well-being of current and future generations. A new area of population-based research and practise is digital public health in mostly rural areas. A fundamentally new perspective on how to use digitalization to improve public health, particularly in prevention and health promotion, is made possible by the rapidly developing field of digital technology for sustaining healthcare. By describing what digital public health interventions are, one may conceptualise the subject of the evaluation and take the first step towards a deeper knowledge of it. This is crucial since it is impossible to evaluate tools without a clear understanding of what an intervention in this area might entail. The growing era of digitalisation has contributed to rising sustainable healthcare by increasing the number of telehealth facilities. Post Covid, the dominant expansion of these facilities has helped people become more familiar with telehealth facilities, which has resulted in minimizing negative impact on the environment. Digital transformation has reduced waste and the cost of services by enhancing effectiveness while maintaining quality and sustainability. People in rural areas started receiving proper and quality healthcare facilities with the digital health camps organised by various tertiary health care setups. Digitalisation can help reduce healthcare's environmental footprint by supporting virtual care or telehealth and the shift from resource-intensive clinical settings to networked, lower-cost settings in the home. Post Covid, health-conscious consumers and capacity-stressed health systems turn to digitalisation to help them address their challenges. However, it is important to remember that public health functions can vary among various health care systems, which reduces the applicability of our new framework to all situations. A digital public health intervention should utilise digital tools to solve crucial public health functions in rural area as well as urban area. The development process should also involve members of the target group in order to increase social acceptance and have a positive impact on population health. By embracing digitalization and sustainable practices, healthcare systems can improve access, efficiency, and patient outcomes while reducing environmental impact and promoting long-term sustainability. However, it is important to carefully address challenges such as data security, privacy, equitable access to digital healthcare, and the potential for technology-driven disparities. It requires a multidimensional approach involving technological advancements, policy frameworks, and active participation from all stakeholders to achieve sustainable healthcare in the digital era.

Keywords: Sustainable; Telehealth; Covid; Digitalisation; Public Health; Social Equity



Study of Bladder Cancer Regarding the Mechanism of Melatonin Enhancement of Curcumin Antitumor 03

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Abstract

Curcumin, a natural polyphenolic compound, has been commonly used as a food additive or in many traditional medicine remedies for over 2,000 years in many Asian countries. Melatonin is a hormone secreted from the pineal glands of mammals and possesses diverse physiological functions. Both curcumin and melatonin have the effective potential to inhibit the proliferation of various types of cancer, but there is no report on their combination for bladder cancer treatment, and the underlying mechanism remains poorly understood. In the present study, we investigated whether the combination of curcumin and melatonin leads to an enhanced inhibition of cell proliferation in bladder cancer cells. Our results showed that the combinational treatment enhanced the repression of nuclear translocation of NF-魏B and their binding on the COX-2 promoter via inhibiting IKK尾 activity, resulting in inhibition of COX-2 expression. In addition, combined treatment with curcumin and melatonin induced cell apoptosis in bladder cancer by enhancing the release of cytochrome c from the mitochondrial intermembrane space into the cytosol. These results, therefore, indicated that melatonin synergized the inhibitory effect of curcumin against the growth of bladder cancer by enhancing the anti-proliferation, anti-migration, and pro-apoptotic activities and provided strong evidence that combined treatment with curcumin and melatonin might exhibit an effective therapeutic option in bladder cancer therapy.

Keywords: Bladder Cancer; Melatonin; Curcumin; Antitumor



The Relationship between Primigravida Mother Participation in Pregnant Women Classes and

04

Delivery Preparation

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Abstract

Background: The Pregnant Women Class is a way for individuals to physically come together and learn about pregnant women's health. The program seeks to improve moms' knowledge about and competence in relation to pregnancies, births, postpartum care, new-born care, myths, and co

morbidity. Pregnant women who fail to recognize the benefits of taking lessons specifically designed for them frequently experience a variety of problems. **Objective:** The research aims to find out the relationship between the class participation of pregnant women and their level of anxiety about facing childbirth. Research methods: This kind of study is called correlational research, which examines the relationships between two variables in the same circumstance or group. Purposive sampling was employed in this study, where samples were taken based on inclusion and exclusion criteria. The sample size was 100 pregnant women who had their pregnancies assessed by five independent practicing midwives in Cimahi City. Univariate and bivariate data are examples of stages in data analysis (Chi

Squared Analysis (χ^2)). **Results:** The study's findings revealed that 39 respondents (59%) of the 66 respondents who participated in mother classes were reasonably prepared for childbirth. 13 respondents (38.2%) of the 34 respondents who were not actively taking part in maternal programs were comparatively prepared for childbirth. The chi-square test results yielded a p value of 0.001. **Conclusion:** There is a significant relationship between the level of class participation of pregnant women and the level of anxiety facing childbirth.

Keywords: *Primigravida; Pregnant Women Class; Delivery Preparation*



Determinant Factors of Self Care among Patients Undergoing Heart Failure in Hasan

Indonesia 05

Sadikin General Hospital in Bandung

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Abstract

Background: Self care is essential for achieving good outcomes among patients with heart failure and is a predictor of well-being. The self-care activities that these patients must perform include adhering to a multiple medication regimen, following dietary sodium restrictions, self-monitoring weight, and managing patient symptoms. A critical component of heart failure care remains difficult in many cases. **Objective:** The aim of the study is to identify determinant factors of self-care among patients undergoing heart failure at Hasan Sadikin General Hospital in Bandung, Indonesia.

Methods: The study used a cross-sectional study with consecutive sampling of 196 patients undergoing heart failure treatment in a clinic for heart failure. **Results:** The demographic profile is: mean age 56.26 ± 12.49 , majority male 144 (73.5%), above the senior high school 128 (65.3%), EF 33.65 ± 9.311 , BMI 25.48 ± 1.98 , length of HF 2.02 ± 1.08 , NYHA II 76 (38.8%), NYHA III at 92 (46.9%), NYHA IV at 28 (14.3%), majority patients with low knowledge at 127 (65%) and poor quality of life at 130 (66.3%), and score of self-care compliance patients undergoing HF at $98 \pm 1,979$. The correlation between knowledge level and self-care compliance is moderate (p value = 0.001), and the correlation between quality of life and self-care compliance is moderate (p value = 0.012). The regression analysis results show that knowledge level is more associated with self-care compliance than quality of life. **Conclusion:** The level of knowledge of patients undergoing heart failure determines their self-care compliance.

Keywords: Self Care; Determinant Factors; Heart Failure



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Abstract

Background: Insomnia is a very common sleep disorder throughout the world. Insomnia can pose a real risk to the physical and mental health of a person suffering from it. In addition, insomnia is also associated with the risk of treatment and direct and indirect health care costs. Insomnia also remains one of the most common sleep disorders encountered in the geriatric clinic population. The impact of insomnia on the elderly, for example, excessive sleepiness during the day, impaired attention and memory, mood depression, frequent falls, improper use of hypnotics, and decreased quality of life. Some sleep disorders can be life-threatening either directly (for example, hereditary and fatal obstructive sleep apnea) or indirectly (such as accidents due to sleep disorders). **Methods:** A literature search was conducted to review epidemiological factors, age-related changes that affect insomnia, and the factors contributing to insomnia in the elderly. The objective is to know and analyze the latest diagnostic guidelines, nonpharmacological strategies, and management of insomnia in the elderly. **Results and Discussion:** Insomnia is a clinical diagnosis. Several factors, such as demographic factors, biologically arising effects of aging, and daily health behaviors, can contribute to insomnia in the elderly. The elderly have a higher risk of suffering from insomnia. **Conclusion:** Some of the most important factors for insomnia's therapy, especially for the elderly, are to analyze detailed historical data and perform a physical examination. Nonpharmacological therapy has benefits, is recommended, and is safe for the elderly to overcome insomnia compared to pharmacological therapy, which has side effects for the elderly. Cognitive behavioral therapy procedures and progressive muscle relaxation therapy can be used to treat insomnia in the elderly.

Keywords: *Insomnia; Risk of Insomnia; Nonpharmacological Strategies of Insomnia; Management of Insomnia; Elderly*



The Effect of Stunting on Nutrition and Motor Development in Toddler Children: Literature

Review 07

^{1,2 1 1 2}
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Abstract

Stunting is a condition in which young children are shorter or taller than they are for their age. Stunting can impair physical growth, motor development, and motor activity. Motor skill impairments in children are due to impairments in the maturation of the muscles and, thus, a decrease in muscle capacity. Many studies have shown a link between nutrition and motor development. Objective: To study the impact of developmental delay on motor development in children and young children. This study is a systematic literature review. The inclusion criteria for search studies were quantitative studies with free full text in Bahasa Indonesia or English. Published articles and free full texts in the range of 2018–2022 were selected. After reading the article titles and considering the inclusion criteria, the

sampling criteria of age and development were reselected and scored in the JBI format. It has amazing effects on the nutrition and motor development of young children. The results of the study showed that stunted children were 11.98 times more likely to have below-average motor development. In addition to suspecting light categories with delayed motor development, toddlers also exhibit delays in being unable to name types of colors, distinguish the size of objects, address gender, and pair familiar images. The moderate developmental delay category, where motor development or delay is suspected, can result in a 15-20% reduction in muscle cells. Infants with the severe developmental delay category of motor development are presumed to have a delay characterized by slow maturation, slowed movement, mental retardation, and delayed social responses. Developmental delays impair the motor development of young children. Stunting affects nutrition and motor development in toddlers.

Keywords: Stunted; Children; Nutrition; Development; Motor Skills



Satisfaction and Quality of Service to BJPS

Patients at Paniaran Primary Health Care

08

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Abstract

Patient satisfaction is an important concept in health services. Satisfaction from the patient's point of view is a form of patient assessment of all health services at a health service place. Promoting patient satisfaction is very important in improving the quality of health with quality nursing care, especially at Paniaran Primary Health Care. Satisfaction can be interpreted as a response from the customer, in this case, the patient, for what is obtained according to his needs. It is a major determinant of the quality of health care. Therefore, improving the quality of health care has become an important goal for all health institutions worldwide to address the need to improve services, manage costs, and meet patient expectations about the quality of care. Since the COVID-19 pandemic, the quality of primary health care has become the main benchmark for evaluating the performance of health workers and a separate assessment for patients who receive these health services. Patient satisfaction depends on the quality of the services provided. The purpose of this study was to determine how satisfied patients were with the service and quality of health services at the Paniaran Health Center. The data collection method in this study was carried out by distributing questionnaires via Google Form to 178 patients at the Paniaran Public Health Center with a cross-sectional design and analyzing them using a systematic literature review and the SPSS statistical test. Patient assessment of health services at the Paniaran Health Center found that the majority of patient satisfaction levels were good for as many as 125 people (70.2%).

Keywords: Satisfaction; Primary Health Care; BPJS Patients



The Effectiveness of Psychoeducation with Media Booklets toward Reducing Anxiety

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Abstract

Background: In midwifery, pregnancy and childbirth are the basis for psychological and biological crises and are associated with a high prevalence of anxiety disorders. Anxiety in pregnant women is caused by various internal factors, one of which is the wrong cognitive processes or cognitive distortions. needsitive distortions in pregnant women need to be changed to reduce anxiety. Methods for changing cognitive distortions can be done in various ways by providing psychoeducation.

Objective: This study aims to determine the effectiveness of psychoeducation on the anxiety of third-trimester pregnant women in Batam. **Methods:** This study used a quantitative method with a one-group pretest-posttest quasi

experiment design. The population in this study was composed of third-trimester pregnant women. The number of samples is 44, with a non-probability sampling technique and a purposive sampling method. The instrument uses the Pregnancy-Related Anxiety Questionnaire (PRAQ-R2), and the intervention is given in 3 sessions. The normality test using Shapiro-Wilk obtained results that were not generally distributed to further test the hypothesis using the Wilcoxon test. **Results:** The mean anxiety of pregnant women before the intervention was 48.57; after the intervention, the average mean anxiety was 24.32. You can see a decrease after the intervention of 24.25, with the Wilcoxon non-parametric test results getting a p-value of 0.000 ($p < 0.05$). It can be concluded that psychoeducation is effective in reducing the anxiety of third-trimester pregnant women. **Conclusion:** The results of psychoeducational interventions can reduce anxiety in third-trimester pregnant women in Batam City, so these findings can be a reference for improving health status, especially in dealing with anxiety in pregnant women.

Keywords: Psychoeducation; Anxiety; Third Trimester Pregnant Women



Climate Change and Gender: An Appraisal

from Public Health Point of View

10

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Abstract

Climate change is an imminent threat facing humanity. It causes various health effects in the form of disease, disabilities, and premature deaths. This review will analyze the effects of climate change from the gender point of view, with the perspectives of males, females, and LGBTQ+ separately. In climate change induced calamities, women are usually the "sufferers"; but the people who are responsible for climatic alterations and the decision-makers after the disaster are all men. LGBTQ+ is a section of the population that has been segregated from the mainstream population and its social benefits. As climate change is a threat multiplier, any pre-existing social inequality would be accentuated. Public health threats experienced by women due to climate change are not uniform worldwide. To substantiate this, women who belong to indigenous tribes or Afro-Asian races, older women, migrants, those with physical disabilities, and those living in remote, disaster- and war-prone areas are the most affected. In many cultures, women have the responsibility of gathering resources for cooking and agriculture. In extreme drought, heavy rain, or landslides (which are exacerbated by climate alterations), the livelihood of women might be markedly reduced, and to compensate, even young girls may go for physical work, resulting in physical illness and disabilities. Furthermore, they may not be able to have enough food, resulting in malnutrition and other reproductive health issues in the future. Various studies have shown that pregnant women and neonates have increased chances of mortality and morbidity, especially due to vector-borne diseases like Zika, malaria, dengue, etc. during calamities. Incidences of domestic violence, sexual violence, and human trafficking are all augmented during natural disasters. Lastly, because of gender inequalities in information or decision making power, it is very difficult for women to survive climatic catastrophes. The LGBTQ+ community is already marginalized, vulnerable, and societally excluded. Hence, their experiences with climatic alterations would be worse, as climate changes are threat multipliers. Even in the US, about 40% of LGBTQ+ people are homeless. Similar is the plight of transgender people in Chennai. The deplorable living conditions expose them to temperature extremes and air pollution, thereby increasing the occurrence of chronic diseases like respiratory diseases, cardiovascular diseases, and cancer. Due to their difficulty in acquiring a decent livelihood, most of them are involved in prostitution, which can put them at increased risk of STDs because of their increased exposure to sexual violence and

exploitation in disaster-prone areas. The reproductive health of males is also negatively impacted due to climatic alterations, especially air pollution and temperature rises. Research has shown that testosterone levels are lowered along with compromised sperm quality, quantity, motility, and morphology, resulting in male infertility in extreme weather conditions. The risk of inflicting physical disabilities and deaths is also increased in men because of their occupations, e.g., firefighters, rescue workers, and reconstruction workers. Nevertheless, the carbon footprint left by industries consuming fossil fuels is dominated by males, and for the mitigation of these adversities, policies are required that address these factors from male, female, and LGBTQ+ perspectives.

Keywords: *Natural Disasters; LGBTQ+; Women's Health*

Experience of Type 2 Diabetes Mellitus

Patients in Self-Care Management During

Treatment **11**

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Abstract

Type 2 diabetes mellitus can cause serious complications, and it has a severe impact on quality of life, and high costs. One of the key strategies in managing diabetes is self-care, a multifactor process that is influenced by personal, cultural, and systemic factors and consists of self-care maintenance, self-care monitoring, and self-care management. Some patients perform adequate self-care. Self-care management is an important part of the lives of individuals with chronic illnesses. This is important because they have to adapt to their condition so that they are able to make decisions about how to manage their own health condition. Experience in carrying out self-care will have different perspectives, and individual adherence to carrying out self-care is influenced by various factors. The purpose of this study is to explore the experiences of T2DM sufferers that influence self-care management when carrying out treatment. This study used a qualitative method with a descriptive phenomenological approach. The sampling technique used was purposive sampling. Data saturation occurred in the 10th participant, so the participants involved in this study were 10 people with inclusion criteria consisting of (1) individuals with Diabetes Mellitus Type 2 (DMT2) with a period of \geq 6 months; (2) those who do not experience severe complications (such as major strokes, heart disease, and diabetic ketoacidosis; (3) those who are able to share their experiences. Data was

collected through in-depth interviews lasting approximately 30–60 minutes. Data analysis used the Colaizzi method. The results of the study identified seven themes, including (1) lack of knowledge about diabetes and low health literacy; (2) anxiety and diabetes distress; (3) maintaining welfare; (4) following the prescribed treatment; (5) family and social support; (6) using traditional medicine or non-pharmacological therapy; and (7) obstacles in carrying out health care. Conclusion: Self-care management is the key for diabetics to avoid complications and maintain their quality of life of T2DM sufferers. In this study, we found that lack of knowledge and low health literacy, maintaining health, family and social support, anxiety and diabetes distress, efforts to use nonpharmacological therapies, and barriers to self-care management can affect self-care management. Overall, our findings corroborate the proportions of the intermediate range theory that we used to inform our research, supporting the application and use of this framework in the diabetes field. Further studies are also important to include healthcare professionals and caregivers because their experiences and perceptions may differ from those of patients. In addition, it is important that a special tool be used in the management of diabetes care at home to make it easier for patients to communicate with health care providers and remote health monitoring providers.

Keywords: *Diabetes Self Care Management; Diabetes Mellitus Type 2 (DMT2); Qualitative*



Family Support with Exclusive Breastfeeding

in Batam City: Survey of Mother

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Abstract

Exclusive breastfeeding is the presentation of breast milk up to the first 6 months of the baby's life stage by not feeding or drinking other foods or drinks except ORS, vitamins, or drugs. The function of breast milk is to fulfill the nutritional needs of the baby, increase the body's defense power, and reduce morbidity and mortality. The success of breastfeeding mothers in continuing to breastfeed

their babies is largely determined by the support of their husbands, families, health workers, communities, and work environment. The husband has a very important role in the success of breastfeeding mothers. If the mother feels supported, loved, and cared for, positive emotions will arise that will increase the production of the hormone oxytocin so that milk production becomes smooth. This study was to find out how families support exclusive breastfeeding. The research used a qualitative method. The population in this study was made up of mothers who had babies aged 6–12 months - as many as 98 people with non-probability sampling techniques and purposive sampling methods. The instrument used is in the form of a questionnaire on a checklist sheet that has been tested for validity. p value = 0.000<0.05 can be concluded that H_0 is rejected, meaning that there is family support with exclusive breastfeeding for the mother. The support provided by the family, especially the husband, is one of the determinants of success in exclusive breastfeeding. Positive psychological stimulation will increase breast milk productivity and increase the optimism or self-confidence of the mother at the time of breastfeeding her baby. The role of the husband can increase the desire of the mother to do exclusive breastfeeding.

Keywords: Family Support; Exclusive Breastfeeding



Analysis of Processing Chemical Parameters

Hospital Wastewater

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Abstract

Background: A hospital is a health institution that provides complete health services. Hospital waste, however, has a negative impact on the environment. WHO found that 18–64% of health institutions use inappropriate clinical waste treatment and disposal technologies. An increase in Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) due to hospital waste pollution could be lethal to aquatic organisms. There are several types of microalgae, for example, a group of green algae namely, Cyanophyta which produce toxins and cover the surface of the water. Therefore, the emission of sunlight and dissolved oxygen in the water is reduced. **Methods:** Firstly, the Publish and Perish web-based application was used to search Scopus articles related to BOD and COD in hospital wastewater from 2018 to 2023. Then, VOSviewer is used to create a map based on text data from the reference manager according to the title field and counting method. After that, a criteria with a minimum number of three occurrences is found, and 133 terms are found, with four articles meeting the criteria. To create the map, three terms about the chemical parameters of hospital wastewater are connected. **Results and Discussion:** As of April 6, 2023, there were 200 articles that were analyzed in Publish or Perish. About 23 articles related to BOD and COD from 2018–2023 were found. Two clusters are formed based on three terms, i.e., hospital wastewater, treatment, and wastewater. **Conclusion:** It remains to be seen if more ongoing and upcoming research ventures can help treat wastewater from the hospital in a more effective manner.

Keywords: *Bibliometric; Hospital Wastewater; Treatment; VOSviewer*



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Abstract

Background: During menopause, women suffer from various forms of physiological and psychological changes, including hot flashes, anxiety, fatigue, sleeping disorders, etc. Many studies have reported various interventions to improve sleep quality in menopausal women. **Methods:** This study used the Vosviewer application, which examines a map based on text data containing publications or reports concerning sleeping disorders (and their associations) in menopausal women. In the first instance, Publish or Perish web-based software was used to search for journal articles related to sleeping disorders in menopausal women from 2018 to 2023. Vosviewer was then employed to create a map based on the text data from the reference manager file with the title field and using the binary counting method. Lastly, references with a threshold of a minimum number of occurrences of 10 were selected. **Results and Discussion:** As of April 6, 2023, there were 200 articles found from Publish or Perish. Three clusters were formed using VOSviewer, i.e., "insomnia and menopausal woman", "menopause", and "postmenopausal woman". Based on the 370 references that were found in Vosviewer, only seven of them meet the threshold. For creating a map, researchers have four selected terms. The map of data from network visualization describing postmenopausal women, insomnia, menopausal women, and menopause was reviewed. It is also known that there has been research on the application of sleeping disorders among menopausal women since 2018–2023 in 74 journals. **Conclusion:** It remains to be seen if more ongoing and upcoming research ventures can help improve sleeping disorders among menopausal women.

Keywords: *Bibliometric; Sleeping Disorders; Menopausal Women; VOSviewer*



Analysis Bibliometric of the Sexual Violence in Children: Map Base on Text Data Using

Scopus Data 15

Vosviewer with Publish or Perish Using

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Abstract

Background: The problem of sexual violence against children in education is a problem that really needs attention. Incidents of sexual harassment are like an iceberg phenomenon: something that is seen on the surface is much smaller than what is not seen on the surface. In cases of sexual violence, it is preferable to keep silent, full of fear and trauma, not daring to report, ashamed, doubtful, disgraced, and discriminated against. Prevention efforts need to be made in order to avoid the occurrence of sexual violence. Children must have the knowledge, attitude, and communication skills to have the courage to fight and refuse. This research uses the Vosviewer application in order to examine a map based on text data containing publications, reports, and journals that concern efforts

to prevent sexual violence. The correlation between the novel terms in the study connected to how to prevent and the efforts of sexual violence will be discovered from the outcomes of analysis based on text data. **Methods:** In this research, the VOSviewer application is used to perform a map based on text data. In the first step, researchers used the programme of publish or perish in scopus-based data for journals and articles that discussed the efforts to prevent sexual violence from 2018 to 2023. The results of an article are published in 200 journals. The second step is for the researcher to create a map based on the text data from the reference manager file with the title field. In the third step, the researcher uses VOSviewer to create a map based on text data from the reference manager with the title field, and the counting method is binary counting. For the next step, researchers choose a threshold with a minimum number of occurrences of a term of 7, and of the 282 terms found, 3 meet the threshold. For creating maps, researchers have three cluster terms. Cluster 1 has 2 items, and Cluster 2 has 1 item. **Results and Discussion:** On April 6, 2023, 55 articles were analyzed. Three clusters were obtained for visualization as map data. **Conclusion:** The results of the mapping based on the keywords are efforts to prevent sexual violence. The majority of research is done on violence, child and sexual violence. The map of data from network visualization describes applications of sexual violence, and the efforts to prevent sexual violence are reviewed. It is also known that there is research in the journal that discusses the efforts to prevent sexual violence that have been carried out since 2018–2023 by 55 researchers.

Keywords: *Bibliometric, Sexual Violence, Children; VOSviewer*



Bibliometric Analysis and Review of Reducing Smoking Habit among Hypertensive Patients

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Abstract

Background: Hypertension is due to an increase in systolic >140 mmHg and diastolic > 90 mmHg with an interval of five minutes in a resting state. A person who smokes more than one pack of cigarettes per day becomes two times more prone to hypertension than those who do not smoke. The objective of this study is to bibliometrically analyze and review articles related to reducing smoking habits among hypertensive patients. **Methods:** First, the Publish or Perish web-based application was used to search Scopus articles related to smoking habits among hypertensive patients from 2018 to 2022. Then, VOSviewer is employed to create a literature map based on text data from the reference manager with the title field and binary counting as a counting method. After that, the threshold with a minimum number of occurrences of four terms (i.e., risk, hypertension, prevalence, and risk factor) is chosen, and of the 209 terms found, six meet the threshold. To create the map, four terms were identified. **Results and Discussion:** As of April 6, 2023, 38 articles had been analyzed, and two clusters were found. There are 2 items in cluster 1 and 2 items in cluster 2, with four visualizations obtained. **Conclusion:** The results of the mapping were based on smoking habits among hypertensive patients. Most of the articles discussed risk factors and the prevalence of hypertension among smokers. It remains to be seen if more ongoing and upcoming research ventures can help reduce smoking habits among hypertensive patients.

Keywords: Bibliometric Analysis; Smoking Habit; Hypertensive Patient; VOSviewer



Analysis Bibliometric Treatment Hospital

Wastewater for Microbiology Parameters

Map Base on Text Data Using Vosviewer with

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Abstract

Background: Hospital liquid waste tends to be hazardous, which can affect human health and worsen environmental sustainability if not managed properly. The results of previous studies showed that the efficiency of the wastewater treatment plant for the content of coliform bacteria did not change before and after processing. Several treatment methods are capable of controlling the parameters of wastewater, one of which is biological treatment technology with an anaerobic-aerobic biofilter. The process with a biofilter has the advantage of being able to reduce *Escherichia coli* bacteria. The purpose of this study was to determine the process of treating hospital wastewater to reduce microbiological parameters, namely coliform. **Methods:** This study used the Vosviewer application that examines a map based on text data containing publications about hospital wastewater treatment for microbiology parameters. In the first instance, Publish or Perish web-based software was used to search for journal articles related to hospital wastewater treatment for microbiology from 2017 until 2023. Vosviewer was then employed to create a map based on the text data from the reference manager file with the title field and using the binary counting method. Lastly, references with a threshold of a minimum number of occurrences of 7 were selected. **Results and Discussion:** As of April 11, 2023, there are 81 articles found from Publish or Perish. Two clusters were formed using Vosviewer, i.e., cluster 1 is "hospital and wastewater treatment plant", and cluster 2 is hospital wastewater". Based on the 341 references that were found in Vosviewer, for creating a map, researchers have 5 to meet the threshold. **Conclusion:** The results of the mapping are based on the keywords treatment plant, hospital wastewater, and microbiology. The map of data from network visualization describes the treatment of hospital wastewater. It is also known that there is research on BOD and COD that has been carried out since 2017–2023, with 35 articles.

Keywords: *Bibliometric; Hospital Wastewater; Treatment; Microbiology Parameters; VOSviewer*





Phytochemical and Antioxidant Activity

Testing of the Aqueous Extract of the Red

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Flower of Kepok Banana (*Musa paradisiaca L.*) Heart Flower

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Abstract

Background: Kepok banana (*Musa paradisiaca L.*) is one of the banana species that thrives in the province of North Sumatra, Indonesia. Kepok banana has a banana heart consisting of red outer petals, male flowers, and yellowish-white inner petals. The red petals of banana flowers are generally rarely used by the public, while they contain many secondary metabolites that can be used as medicinal and cosmetic ingredients. Flavonoids, polyphenols, and anthocyanins have activity as antioxidants that can be tested with the DPPH (1,1-diphenyl-2-picrylhydrazyl) method. The research objectives were to make simplisia of the red petals of kepok banana heart flower, examine the quality characteristics and phytochemical screening, as well as the strength of the antioxidant activity of the red petals of kepok banana heart by the DPPH method. **Methods:** This type of research is an experimental study conducted at the Helvetia Health Institute laboratory and the University of North Sumatra Plant Systematics laboratory, with research stages including plant collection, plant determination, making simplisia, examining quality characteristics, examining phytochemical screening, making water extract of the red petals of kepok banana heart flower, and testing antioxidant activity with the DPPH method. The data analysis was carried out descriptively and calculated the percentage of absorption inhibition. **Sample:** Sampling was carried out by purposive sampling with the characteristics of banana hearts from kepok banana plants, and the outer red petals of the kepok banana heart flower were taken. Samples were obtained from Deli Serdang district, North Sumatra province, Indonesia. **Results:** Based on the results of the plant determination examination, the sample used (red petals of kepok banana heart flower) has the species *Musa paradisiaca L.*, family Musaceae, genus *Musa*. Microscopic quality characteristics are visible xylem parenchyma tissue and rapids shape, a moisture content of 7.5%, a water-soluble juice content of 16%, an ethanol-soluble juice content of 13.66%, a total ash content of 11.5%, and an acid insoluble ash content of 1.33%. Phytochemical screening was positive for flavonoid and steroid/terpenoid secondary metabolites. Antioxidant activity testing of the red petal extract of kepok banana heart flower obtained an IC₅₀ of 69.7676 ppm. **Conclusion:** Based on the results of the study, it can be concluded that the quality characteristics of the red petals of the heart flower of kepok banana (*Musa paradisiaca L.*) are qualified and the antioxidant activity is in a strong category.



Development of a Nursing Clinic Practice

Evaluation System Based Mobile Learning

Information System (CEMIS) among Nursing **19** Students in Indonesia
Application Clinical Education Management

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Abstract

Background: The evaluation process of nursing clinical practice learning in Indonesia is still partly conversational and has not been integrated between academic preceptors, clinical preceptors, and students, both in the formative and summative assessment processes. Moreover, the learning process of nursing clinic practice is mobile because it is fully implemented in hospitals, health centers, families, and communities. So it requires an evaluation system based on a mobile learning application that is in real time, not limited by space and time, and can be accessed anytime and anywhere. **AIM:** Producing a nursing clinical practice evaluation system for nursing students, academic preceptors, and clinical preceptors based on mobile learning applications that are in real time in accordance with the assessment of the needs of evaluating nursing clinic practices in Indonesia. **Method:** This type of research is research and development (R & D) with a research product development design using the

Analysis, Design, Development, Implementation, and Evaluation (ADDIE) model. The research instrument consists of three parts: test product validation by technology experts, test product validation by material experts, and test product practicality by students. The sampling technique is prospective sampling, with a total of 15 Ners professional students, 5 material experts, and 3 technology experts. **Results:** This research resulted in a mobile learning application-based nursing clinical practice evaluation system called the Clinical Education Management Information System (CEMIS), which includes all nursing clinic practice evaluation stations that can be accessed in real time by academic p receptors, clinical preceptors, and nursing students and has 12 features consisting of: cognitive ability (assessment feature), psychomotor ability (competency feature), affective ability (attendance feature, log book, task, and condition), and supporting factors (group chat feature, guide, gantt chat, stage verification, learning outcome, documentation, and scientific papers). The results of the product validity test by technology experts amounted to 87.71% with a very decent category and a material expert assessment of 90.83% with very feasible categories, while the product silliness test results were 85.00% with a practical category. **Conclusion:** The CEMIS Mobile Learning Application-based nursing clinic practice evaluation system is declared feasible and practical to use as an evaluation of nursing clinical practice for academic preceptors, clinical preceptors, and nursing students in accordance with the evaluation of nursing clinic practices in Indonesia.

Keywords: *Mobile Learning Application; Evaluation of Nursing Clinic Practices; Clinical Education Management Information System*



Determine of Anemia Prevention Behavior in

Adolescent Women at RJ Senior High School,

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Cilegon City, Indonesia in 2023

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Abstract

Anemia is a common nutritional problem in the world; it is estimated that more than 30% of the world's

population, or 1500 million people, suffer from anemia, especially teenagers and pregnant women. The prevalence of anemia among adolescents in the world ranges from 40-88%. This study aims to determine the factors associated with anemia prevention behavior in adolescents and women. This research was conducted from January until March 2023 at Raudhatul Jannah Senior High School in Cilegon City. This study uses a quantitative method using a cross-sectional approach. The number of samples in this study was 155, with a random sampling technique. The results of the analysis showed that those who had good knowledge were mostly 74.2%, those who had a positive attitude were most likely 53.5%, those who adhered to the consumption of iron supplement tablets were mostly 68.4%, those exposed to non-media information were as many as 56.1%, and those who had mostly good behavior were 51.8%. A statistical test using the Chi Square test shows there is a relationship between knowledge (p value = 0.000), attitude (p value = 0.02), and adherence to consumption of iron supplement tablets (p value = 0.000) and the anemia prevention behavior of adolescent women. There is no relationship between media exposure and the anemia prevention behavior of adolescent women (p value = 0.627). Need to maintain and monitor and then follow up regarding support or efforts to provide motivation in adherence to consuming Fe once per week and exposure to media information about anemia to increase anemia prevention behavior.

Keywords: Adherence; Anemia; Attitude; Knowledge; Prevention Behavior



Student Satisfaction with Lecturer Teaching

Skills in Online Learning

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Abstract

Lecturers' teaching skills online are the most important method for student learning satisfaction. The teaching skills of lecturers are also one of the determining factors for success in the teaching and learning process. This study aims to determine the relationship between online lecturers' teaching skills and student learning satisfaction. This research was conducted in May - June 2022. Respondents in this study were students of the Faletehan University of Nursing Programme Study, with a total sample size of 77 people. The sampling technique uses proportional random sampling. This study used a quantitative method with a descriptive research design and a cross-sectional approach. Relationship test using a bivariate approach with a significance limit of 95% CI. The results showed a p value of 0.01, which means that there is a significant relationship between lecturer skills and student satisfaction in the online teaching and learning process, with $OR = 4.857$, which means that lecturers who are skilled at teaching online have a ratio of 4.857 times greater to make students satisfied in the teaching and learning process. It is hoped that lecturers can improve their teaching skills by using visual aids.

Keywords: *Lecturer; Student Satisfaction; Teaching Skills*



Use of Condoms on Customers in the Jondul

Area of Pekanbaru City

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Abstract

According to the data from the Riau Health Service, it has been reported that there were 132 new cases of Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS). Pekanbaru City is in the top ranks for the number of people living with HIV (76 cases) and AIDS (56 cases). The purpose of this study was to analyze the use of condoms by customers in the Jondul area of Pekanbaru City. This type of research is qualitative with a narrative strategy. The research informants were four main informants and two supporting informants. The data collection method used was in-depth interviews. Data analysis was performed by transcription verification, thematic analysis, and matrix creation. The results of the study show that customers do not want to use condoms when having sex with sex workers. Even though the sex workers have tried to make offers to use condoms on customers, it has still been to no avail. The use of condoms by customers is influenced by the perception, complexity, and convenience of using condoms. It is suggested that Puskesmas health workers conduct counselling about the use of condoms on an ongoing basis so that customers and sex workers understand how to use condoms properly and correctly.

Keywords: AIDS; Condom; Customers; HIV



Factors that Influence the Implementation of Patient Safety in the Inpatient Rooms in Mitra

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Medika Amplas Hospital Medan

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Abstract

Patient safety is a global problem in health. Reports of patient safety incidents in Indonesia based on the type of 145 reported near-miss incidents were 69 cases (47.6%), adverse events were 67 cases (46.2%), and others were 9 cases (6.2%). Although there have been incident reports obtained, the calculation of incidents related to patient safety is still limited. The purpose of this study was to determine the factors that influence the implementation of patient safety in the inpatient rooms at Mitra Medika Amplas Hospital. The research design that is being used in this study is cross-sectional. The population in this research was 89 nurses, and the samples were taken by total sampling. The data collection methods are primary data and secondary data. Furthermore, the data analysis method that is being used is binary logistic regression. According to the tests that have been conducted in the research, it reveals that organization and management with sig of change value equal to $0,000 < a, 0,005$, interaction and teamwork with sig of change value equal to $0,000 < a, 0,005$ and the importance of documentation with sig of change value equal to $0,000 < a, 0,005$ have influences on the implementation of patient safety in the inpatient rooms in Mitra Medika Amplas Hospital. On the other hand, patient-related factors with a p value = $0,624 > a = 0,005$, improving patient safety and quality with a p -value = $0,395 > a = 0,005$, and evaluating and monitoring with a p -value = $0,730 > a = 0,005$ do not have any effects on the implementation of patient safety. We may infer from the research that organizational and management variables, interaction and teamwork, and the importance of documentation have an impact on how patient safety is implemented. The implementation of patient safety, in contrast, is unaffected by patient related factors, improvements in patient safety and quality, and evaluation and monitoring.

Keywords: Factors Influencing Patient Safety; Management; Nurses



The Effectiveness of the Booklet on Increasing Pregnant Women's Knowledge about the 24 Danger Signs of Pregnancy

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Abstract

Background: Pregnancy disorders or complications must be detected earlier to prevent more dangerous risks for pregnant women and their fetuses. A mother's knowledge about the danger signs of pregnancy needs to be increased so that early detection of complications can be carried out earlier and treatment of complications is not too late. Increasing knowledge about pregnant women can be carried out through health education activities using a booklet. **Objectives:** To know the effectiveness of the booklet in increasing the holistic knowledge of pregnant women about the danger signs of pregnancy. **Methods:** This research is a quasi-experiment with a one-group pre- and post-test design. The sample collection technique used was purposeful sampling with 50 respondents. **Results and Discussion:** There are differences in values before and after intervention using the Wilcoxon Test. **P**

value = 0.008 (<0.05), statistically means that health education using booklet media has effectively proven to increase the knowledge of pregnant women holistically about the danger signs of pregnancy. Booklet media can attract the attention of many people in a short time, it can be used by various groups of people; it is more flexible; and it can be distributed to many people. **Conclusion:** The use of a booklet can effectively increase the knowledge of pregnant women about the danger signs of pregnancy.

Keywords: Booklet; Knowledge; Pregnant Women; Danger Signs of Pregnancy



The Application of Health Belief Model in

Improving Healthy Behaviors among Pregnant

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Women: A Literature Review

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Abstract

Background: Indonesia has the fifth-highest mortality rate in the Asia Pacific and the first in ASEAN. One factor that influences the high maternal mortality rate is pregnancy complications. The high mortality rate is influenced by mothers' education and husbands' cognition. Knowledge deficits and behavior change require appropriate approaches, such as the Health Belief Model (HBM). **Objective:** to determine changes in health behavior with the application of the Health Belief Model among pregnant women. **Methods:** This study used a literature review design. The databases involved in the search are Scopus, PubMed, Web of Science, Embase, and Google Scholar. **Inclusion Criteria:** Research with the topic of Health Belief Model in Pregnancy, publication 2018-2023, full text Mesh terms used: Health Belief Model AND pregnant women OR pregnancy. **Results:** Database extraction results obtained (n = 8) articles from 235 articles. Educational or evaluation materials that use HBM are nutrition education, prevention of anemia, preeclampsia, and eclampsia, gestational diabetes, influenza vaccination, prevention of urinary tract infections, and acceptance of COVID-19 vaccination. **Conclusions:** This review demonstrates the lack of evidence-based research to apply HBM to pregnant women.

Keywords: *Health; Belief; Model; Pregnancy*



Spiritual Care Assessment Instruments in Patients with Coronary Heart Disease:

Literature Review

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Abstract

Introduction: Spiritual service is one of the holistic needs needed in the involvement process, especially for patients in palliative care and chronic care, one of which is coronary heart disease.

Aim: The aim of this research is to develop a spiritual assessment instrument to improve the quality of spiritual care for coronary heart disease patients. Spiritual care is a form of service aimed at patients who suffer from advanced chronic diseases, both life-threatening and life-limiting, and their families. It prepares the patient to face death so that he dies with dignity and focuses on efforts to improve the quality of life of patients and their families through treatment. comprehensive, covering bio-psycho-socio-cultural and spiritual. However, most of the implementation is still not optimal for the given spiritual needs. **Results:** The result is that spiritual assessment instruments are not yet available, so they only focus on the patient's assessment of their physical problems. This literature review examines scientific articles through searches in several basic journals such as CINAHL, Google Scholar, Proquest, PUBMED, and Science Direct. Several spiritual assessment methods that can be used in palliative care are the FICA, FAITH, SPIRIT, ETHNIC(S), HOPE, and Ars Moriendi Model methods. **Conclusion:** Based on an understanding of this literature, it can be concluded that the provision of spiritual care services is an important aspect of inclusion, particularly in palliative and chronic care services. The use of assessment instruments related to the patient's spirituality is very helpful in exploring the patient's values and beliefs about his life, both in the healthy and sick ranges.

Keywords: *Instrument, Spiritual Assessment, Coronary Heart Disease, Palliative Care*



Evaluation in the Format of Integrated Patient

Nursing Care Documentation in Patients with

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Diabetes

Mellitus

Development Notes to Improve Quality of

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Abstract

Introduction: Evaluation of nursing care in the integrated patient development record format on 196 medical record documents shows that it is not in accordance with the National Hospital Accreditation Standards (SNARS). This is like what happened at Siti Khadijah Palembang Islamic Hospital. The purpose of this study was to develop an evaluation instrument for nursing care in the integrated patient development record format for diabetes mellitus patients. **Methods:** The design of this research involves research and development. The population for stage 1 was 196 medical record documents and 7 participants. Stage 2 population: 56 medical record documents and 7 respondents. Participants and samples were selected by purposive sampling. Data analysis used descriptive analysis, statistical analysis of the product moment, Pearson correlation for the validity test, and Crobach alpha for the reliability test. **Results:** The nursing care evaluation instrument in the format of integrated patient development notes for diabetes mellitus patients in the inpatient room of the Siti Khadijah Palembang Islamic Hospital is according to standards but not optimally equipped; FGD activities are declared valid and reliable; the results of instrument filling training show that more than half of the nurses (63,7%) have good enough ability; and the instrument is said to be good enough by nurses (65,25%). Discussion and **Conclusion:** development of a nursing care evaluation instrument in the format of integrated patient progress notes in diabetes mellitus patients as a result of FGD activities, namely in the form of a combination of instruments A) Ministry of Health of the Republic of Indonesia (2022) and SNARS in terms of content, language, and accuracy, as well as systematic preparation based on FGDs and expert discussions in the form of filling in the SOAP (subjective data, objective data, analysis, and planning) method into an integrated patient development record format.

Keywords: *Integrated Patient Development Record; Soap; Diabetes Mellitus*



Successful Aspects and Impacts of Diabetic Foot Exercise among Indonesian Type 2

Review **28**

Diabetes Mellitus Patients: A Literature

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Abstract

Background: The prevalence of diabetic foot among patients remains high worldwide, including in Indonesia. Foot exercise is one solution to prevent this health issue. However, the procedure seems simple, but many factors influence the success of this intervention. Numerous studies have been published related to the successful aspects and outcomes of diabetic foot exercise, but those are still dispersed. So, the comprehensive information on diabetic foot exercise is still puzzled and not utilized maximally by clinicians. **Objective:** This study aims to review and synthesize previous information related to the successful aspects and impacts of diabetic foot exercise among Indonesian Type 2 Diabetes Mellitus patients. **Methods:** A literature review was chosen in this study with the PRISMA approach to sort the articles from EBSCOHost, Google Scholar, ScienceDirect, Wiley Online, and ProQuest. We used a mixed-methods Appraisal Method to determine the eligibility of the articles that

were included in this study. **Results:** We harvested 1,481 articles and synthesized 20 selected articles. Our findings revealed that intrinsic and extrinsic aspects of diabetic foot exercise were the key to improving the intervention's outcome. Most outcomes of diabetic foot exercise were related to physical benefits. Although mental benefits were also captured in this study, interestingly, our review found a unique finding: in the Indonesian context, the spiritual outcome was also mentioned by diabetic patients after receiving diabetic foot exercise. **Conclusion:** By deliberating our findings, clinicians may scale up and be aware of the supporting aspects of diabetic foot exercise when providing this therapy to diabetes mellitus patients. Thus, the patients may achieve the highest benefit from diabetic foot exercise.

Keywords: *Diabetic Foot Exercise; Successful Aspects; Type 2 Diabetes Mellitus*



Effectiveness of an Mhealth KaPi Programme to

Increase Physical and Psychological

Testing among Deaf Community; Study **29** Protocol for
Randomised-Controlled Trial
Capability of HIV Voluntary Counseling and

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Abstract

Background: Deaf people pose a health risk to the general population. During the COVID-19 epidemic, people with deafness and hearing loss also suffered from psychological issues, post-traumatic stress disorder, and seropositive HIV. **Objective:** This study aims to examine the effectiveness of a mobile health educational program to increase mental health and HIV prevention among the deaf community. **Methods:** A cluster randomized controlled trial design with NGOs of the deaf community as the unit of randomization will be used in this study. Respondents will be randomized in a 1:1 ratio to be either in the intervention (educational program) or control group (waiting list). Respondents in the intervention group will receive four main topic education sessions with a total mobile health educational program of 2.5 hours for two weeks. The control group will receive the intervention once the 3-month follow-up evaluation is completed. **Results:** The data will be analyzed using the generalized estimation equation with a confidence interval value of 95%; significant differences between and within groups are determined as $P < .05$. The results of the study underline the effectiveness of mobile educational programs in increasing mental health and preventing HIV among the deaf community. The results of this study will contribute to previous knowledge of psychological distress, HIV prevention practices, and the self-efficacy of deaf people. **Conclusion:** The intervention group will score significantly lower than the wait-list group on the immediate and 3-month postintervention evaluations of psychological distress, practice HIV prevention, and coping self-efficacy, achieving a higher level of adjustment.

Keyword: MHealth; Deaf; HIV; AIDS; Psychological Distress



Family Support in Improving Quality of life of

Diabetes Mellitus Sufferer: Literature Review

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Abstract

Background: Diabetes mellitus is the seventh leading cause of death worldwide, with complications from heart disease, stroke, kidney failure, blindness, and amputation. The risk of complications, the burden of care, and the dependency of patients with diabetes mellitus decrease the quality of their lives. Family support can help DM sufferers with self-management to reduce DM complications and improve their quality of life. The purpose of this study was to comprehensively explore the literature on family support in assisting people with diabetes mellitus and the impact on their quality of life.

Methods: The research uses a literature review approach using 791 articles captured in the 2015–2022 range through PubMed, Ebsco, the Willey online library, and Science Direct, with 6 articles to be analysed. The inclusion criteria are articles in English with quantitative and qualitative research approaches that are relevant to exploring family support in assisting people with diabetes mellitus and their quality of life. **Results:** The results show that the role of family support can be obtained through parenting classes, group discussions, home visits, or digital applications for accessibility. Positive family support increases the self-efficacy and self-management of sufferers and increases expectations of high life expectancy, thereby increasing the quality of life for DM sufferers by reducing levels of stress, anxiety, and emotions and being more able to control social and environmental aspects in improving coping. Family support that has the most influence on reducing complications is family control regarding nutritional intake and diet, physical activity for at least 30 minutes per day, and monitoring blood sugar levels. **Conclusion:** Family support has a significant effect on reducing complications and controlling blood sugar in people with diabetes mellitus. Sufferers are able to improve their self-management system, which has an impact on increasing their quality of life. In the future, family support needs to be developed with a digital technology approach to increase family accessibility and the ability to accompany DM sufferers.

Keywords: Family Support; Diabetes Mellitus; Quality of life



Study Protocol 31

and Skill Performance among Nurse Student:

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Abstract

Introduction: Nowadays, the main area of concern for safety remains medication administration errors (MAEs). Medication errors raise morbidity, mortality, and costs in healthcare settings. The lack of quality and quantity (knowledge, self-efficacy, and skill performance) in medication administration while carrying out the nursing program is the main cause of the patient's lack of safe medication administration skills. Nursing students need digital education media that is easily accessible, so they can learn material anywhere and anytime, not just in laboratory skills or in class. This research aimed to develop, implement, and evaluate the effectiveness of a digital education system for medication administration in improving knowledge, self-efficacy, and skill performance among nursing students.

Methods: The design of the study used a cluster randomized controlled trial with nursing students as a unit of randomization. Students will be randomized at a 1:1 ratio into either the intervention (digital education about medication administration) or control group (waiting list). Participants in the intervention group will receive material about medication administration obtained from the website created by the researcher. The control group will receive the intervention after the one-month follow-up evaluation is complete. We recruited 90 participants and randomly assigned them to the experimental group and the control group, resulting in 45 participants in each group. **Results and Discussion:** The data will be analyzed using the generalized estimation equation with a confidence interval value of 95%; significant differences between and within groups are determined as $P < .05$. The results of the study underline the effectiveness of digital education in improving knowledge, self-efficacy, and skill performance among nurse students and avoiding medication errors.

Conclusion: We hope that the intervention group will score significantly higher than the control group on the one-month postintervention evaluation of knowledge, self-efficacy, and skill performance. Results will have implications for nursing students, policymakers at the nursing faculty, the Indonesia Ministry of Higher Education, and future research.

Keywords: Digital Education; Knowledge; Self Efficacy; Skill Performance



Analysis of Stunting Incidence on the Growth of Children Aged 12-60 Months

32

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Abstract

Introduction: Low consumption of quality food, poor parenting, and low access to health services are the causes of malnutrition and stunting. During pregnancy, the fetus already needs micronutrients and protein to potentially build height, as well as after At birth, babies need to fulfill micro and macronutrients in a balanced manner, which can be obtained by exclusive breastfeeding followed by breast milk and complementary food, so that the child's growth and development can proceed according to their age. **Purpose:** This study aims to analyze the incidence of stunting in the growth and development of children aged 12–60 months. **Research Method:** This research is descriptive-analytic with a cross-sectional approach, with a population of all children aged 12–60 months in the village of Aqaisan Musi, Muara Belida District, Muara Enim Regency, South Sumatra Province, Indonesia. A sample of 68 respondents was taken by the purposive sampling technique. Data collection instruments used were observation sheets and developmental pre-screening questionnaires (KPSP). Data analysis was performed univariately and bivariately using the chi-square

statistical test. **Results:** out of 68 respondents, 6 respondents (8.8%) were severely stunted, and 20 respondents (29.4%) were stunted. For the growth and development of children based on the KPSP, the results obtained from 68 respondents showed 16 respondents (23.5%) in doubtful categories. The results of the chi-squared statistical test obtained a *p* value of 0.001. **Conclusion:** There is a significant relationship between the incidence of stunting and the growth and development of children aged 12–60 months in Arisan Musi village.

Keywords: *Stunting; Growth and Development; Children Aged 12-60 Months*



The Effectiveness of Interactive Media

Therapy (Puzzle) on the Cognitive Ability of

Literature Review

33

Stunting Children at the Age of Preschool:

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Abstract

Background: Stunting is a growth and development disorder due to a long-term lack of nutrients, which is characterized by a height of less than 2 standard deviations. The resulting impact results in impaired cognitive development in children, and in the long term, it will reduce learning achievement and decrease productivity. Puzzle games for children can stimulate creativity, children's interaction with the environment and language skills, and children's concentration. Puzzle games are suitable media for stunting children's cognitive abilities. This literature review aims to explore the literature on interactive media therapy to puzzle out the cognitive development abilities of preschool-age stunting children. **Methods:** The method used in this research is a literature review taken from international and national journals over a period of 5 years (2018–2023). Journal search sources through several databases, namely PubMed, Scopus, Science Direct, USR, and Google Scholar, found 12 journals reviewed. Inclusion criteria included articles in English, quantitative and qualitative research approaches, and interactive media related to puzzles, cognitive abilities, stunting, and preschool children. While the exclusion criteria are articles in the form of comments, protocols, double publications, or variables that do not match the keywords. **Results:** The results of the study showed that educational games increased the abilities of stunted children to distinguish shapes and colours, simple count, and express what was learned with language. Educational games stimulate stunted children to explore within the limits of their brain abilities and are even able to show cognitive abilities that are not much different from those of children with stunting who receive special attention from their families. **Conclusion:** The conclusion of the study shows that educational games, stimulus, and nutrition improve the cognitive abilities and learning achievements of stunted children. Suggestions in this study suggest that the provision of educational games should be given to stunted children in addition to providing nutrition and other stimulation.

Keywords: *Interactive Media (Puzzle); Cognitive Abilities; Stunting, Preschool-Age*



Evaluation of the Use of Digital Media for

Improving Adolescent Life Skill and

A Systematic Literature Review

34

Reproductive Health to Prevent Child Marriage:

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Abstract

Child marriage has an impact not only on health but also on the sustainability of the household formed through child marriage. This can happen because the majority of child marriages are not based on proper preparation, and it often goes unnoticed by couples who marry early. Many teenagers do not know the impact of child marriage. This is partly due to the limited media that inform it. Adolescents tend to prefer to seek information through more interactive media, such as the internet or social media, using digital media, videos, and more fun interactions. Therefore, this review aims to evaluate the use of digital media by adolescents regarding reproductive health and child marriage. This study used a systematic literature review design to identify all articles on digital media use Reproductive health and child marriage. The results highlight that there is an increased understanding of the impacts and risks of child marriage practices, children and the benefits of a maturing marriage age for adolescents.

Keywords: *Child Marriage; Impact of Child Marriage; Digital Media; Reproduction Health*



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Abstract

Background: Menopause occurs when the ovaries stop producing the hormones estrogen and progesterone. Women who are experiencing menopause can experience various symptoms, one of which is pain. The impact of pain can affect the quality of life and daily activities. Ergonomic exercise is one of the non-pharmacological interventions that can help reduce pain in menopausal women. However, further research is needed to evaluate the effectiveness of ergonomic exercise in menopausal women with a limited sample. **Objective:** This study aims to evaluate the effectiveness of ergonomic exercise in reducing pain in menopausal women with a sample of 30 respondents.

Methods: This study used a quasi-experimental method with a one-group pretest-posttest design. The study sample consisted of 30 menopausal women who experienced pain and were able to perform the ergonomic exercise. Pain data were measured using the Numeric Rating Scale (NRS) before and after the ergonomic exercise intervention. In addition, demographic data and factors related to pain were also collected. The data were analyzed using paired t-tests and simple linear regression. **Results:** The results showed that at the pretest, the majority of respondents (65%) included moderate criteria, and after the intervention (posttest), the majority of respondents (75%) included mild criteria. There was a significant difference between pain scores before and after the ergonomic exercise intervention ($p <0.05$). **Conclusion:** Ergonomic exercise is effective in reducing pain in menopausal women, based on a sample of 30 people. The results of this study can be used as a reference for providing ergonomic exercise interventions for menopausal women who experience pain. However, further research with a larger sample size and better control is needed to strengthen the results of this study.

Keywords: *Ergonomic Exercise; Menopausal; Pain*



Components of Clinical Practice Evaluation

Quality among Nursing Students: Literature

Review **36**

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Abstract

Background: Less than optimal evaluation processes of clinical practice among nursing students can occur due to individual, organizational, and psychological factors. The most important thing is that the better the evaluation of clinical practice among students of the nursing profession, the better the student's ability outcomes will be. However, evaluating clinical practice among nursing students must also be measured for its quality. In order to measure this quality, it is necessary to know which components can be used as a standard for measuring the quality of clinical practice evaluation among students of the nursing profession. **Objective:** This literature review aims to analyze what components influence the quality of clinical practice evaluation among nursing students. **Methodology:** The literature review is done by taking electronic database sources through e-book and journal search engines, such as Google Book, Google Scholar, Pro-Quest, PUBMED, and Science Direct. The criteria for published books are the last ten years (2013–2023) and journals for the last five years (2018–2023), using the keywords "component of quality evaluation of clinical practice among nursing students". **Results:** Based on the results of the literature collected, it was found that many variations can be used as measurement components, but some of them have the same meaning, so they are summarized into nine main components that can be used as standards for measuring the quality of clinical practice evaluation of nursing students, namely, validity, reliability, practicability, objectivity, feasibility, understandability, continuity, propriety, and efficiency. **Conclusion:** The quality of clinical practice evaluation among nursing students must have standardized, effective, efficient, and sustainable components so that the clinical competence of nursing students can be achieved optimally.

Keywords: Components; Quality of Evaluation; Clinical Practice; Nursing



Development of a Model Health Literacy and Empowerment Diabetes Type II Patients in

Cianjur, West Java, Indonesia

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Abstract

The diabetic patient's quality of life still raises scholars' interest worldwide, including in Indonesia. However, the quality of life of diabetic patients is still low, especially in rural areas. The facts showed that diabetic patients in rural areas have less awareness of their health literacy and patient empowerment in diabetes care. This study aims to improve the level of health literacy and patient empowerment through the diabetes application of type II diabetes patients in Cianjur Regency, West Java, Indonesia. We used a quantitative method by utilizing pre- and post-tests to see the effectiveness of the improvement in patient health literacy and empowerment before and after they used the application. We divided the patients into two groups: a control group with 59 patients and an intervention group with 58 patients. The data was analyzed using *T*-Test through the Jamovi 2.3.21.0 application. These results showed that there was a difference in the mean scores of health literacy and empowerment before and after they used the diabetes application. The mean score of health literacy before and after using the diabetes application in the control group is 14.4. Likewise, there

were mean scores of health literacy in the intervention group of 21.9. This means that there is an increase in health literacy in both groups after using the application. Meanwhile, the mean empowerment score of type II diabetes patients in the control group is 7.14; the mean empowerment score of patients with type II diabetes in the control group is 7.14; and the mean empowerment score of patients in the intervention group is 12.7. The significant value of the T-Test test is <0.001 for health literacy and patient empowerment <0.001 with a confidence level of 95%. This data shows that health literacy and empowerment have increased significantly after using diabetes applications. The results of this study cannot be generalized because it only used the quantitative method. For future research, it is recommended to measure the effectiveness of the diabetic application through in-depth interviews with the patients to understand their reasons for using the application.

Keywords: *Health Literacy; Empowerment; Diabetes; Quality of Life*



The Role of Smartphone Application for Enhancing Postpartum and Breastfeeding:

Review Analysis **38**

Using VOSviewer Map for Bibliometric

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Abstract

Effective postpartum care requires thorough monitoring and comprehensive supervision. In recent times, smartphone applications have been utilized to address delays in accessing healthcare services. Despite their proven effectiveness in enhancing knowledge and promoting self-care practices, their use in postpartum care remains limited. The use of information and technology in handling large amounts of data and resources has made the graphical representation of bibliometric maps increasingly essential. However, this area has received less attention than is warranted. To address this gap, this study employs VOSviewer to analyze text data from publications or reports related to postpartum care. The primary objective of this analysis is to identify factors influencing the postnatal onset of smartphone applications using textual data. The methodology that is utilized for the study is measuring the extent to which smartphone applications have been utilized after birth by relying on academic research databases from 2018 to 2022. A minimum frequency of 10 classes was selected, leading to the identification of 1031 terms, out of which 12 met the minimum threshold. Among the 12 boundary encounters, 7 numerical terms were identified for further analysis. The finding reveals that a total of 310 articles were analyzed, revealing 2 clusters, with cluster 1 consisting of 4 items and cluster 2 consisting of 2 items. From these 2 clusters, three visualizations were obtained, namely network, overlay, and density visualizations. The results of this mapping based on the keywords smartphone application for postpartum suggest that most research has been conducted in the form of trials. The data map of the network visualization for smartphone applications for postpartum and breastfeeding represents a review. It is noteworthy that there have been studies conducted on smartphone applications for postpartum and breastfeeding.

Keywords: *Bibliometric; Smartphone; Postpartum; VOSviewer*



Analysis Bibliometric Review of Music

Therapy for Low Back Pain on Pregnant

VOSviewer with Publish or Perish Using **39** Google Scholar

Woman: Map Base on Text Data Using

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Abstract

Background: The process of pregnancy will cause various changes in all body systems. Low back pain in pregnant women is the most frequently reported problem during pregnancy (Walsh, 2016). Back pain during pregnancy can arise as a result of a balance between the work of the postural muscles and the fascist muscles in the lumbar region. This can cause the lumbar muscles to shorten with hyperlordosis of the lumbar spine, while the abdominal muscles tend to be flexible and change in attitude with increasing gestational age due to weight moving forward due to the weight of the fetus. The increase in size is also offset by the presence of excessive lordosis of the lumbar spine. Therapy by listening to music can produce endorphins, a substance similar to morphine supplied by the body that can reduce pain by inhibiting the transmission of pain impulses in the central nervous system, so that pain sensations can be reduced. Music also works on the limbic system, which sends messages to the brain nervous system to regulate contractions of the muscles of the body, so as to reduce muscle contraction (Saad & Jariyah, 2022). **Objective:** This study employs VOSviewer to analyze text data from publications or reports related to low back pain during pregnancy and music therapy. The methodology that was utilized for the study was to measure the extent to which music therapy reduced low back pain during pregnancy from 2010 to 2022. A minimum frequency of 10 classes was selected, leading to the identification of 5915 participants, out of whom 105 met the minimum threshold. Among the 105 boundary encounters, 42 numerical terms were identified for further analysis. **Results and Discussion:** On November 29, 2022, articles were analyzed, and there were 72 items and 6 clusters. Cluster 1 has 25 items, cluster 3 has 9 items, cluster 5 has 9 items, and in cluster 6 there are 4 items. **Conclusion:** The results of the mapping based on the keywords 'music therapy for low back pain on pregnant women' showed that map of data from network visualization described therapy for low back pain in reviews. It is also known that there is research on therapy for low back pain that has been carried out since 2010–2020 in this VOSviewer application.

Keywords: *Bibliometric; Low Back Pain; Music Therapy; Pregnant; VOSviewer*



Adherence and Prevent Ante Natal 40 Complication (Study of Literature) Education to Improve Ante Natal Care

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Abstract

Data from the World Health Organization (WHO) states that globally, around 830 pregnant women die every day due to complications during pregnancy and childbirth, with a maternal mortality rate of 216 per 100,000 live births. Early detection or screening using an Android-based application in pregnancy is an effort to prevent complications of preeclampsia in pregnancy, thereby increasing adherence to conducting antenatal care visits. The purpose of this study is to review the literature on Android-based early detection of preeclampsia and education on immediate treatment to increase ante-adherence compliance. Natal Care and Preventing Ante Natal Complications. Literature review is done on search engines, electronic database Proquest, and Google Scholar. Keywords entered into search engines or databases include "Early Preclampsia Detection", "Android Based" "Ante Natal Complications" and "Ante Natal Care Compliance". After reading the articles and selecting them using the JBI literature review tools, 12 articles were obtained according to the RCT, quasi-experimental, and cross-sectional methods. Almost all research results state that there is a significant relationship between Android-based preeclampsia screening and the prevention of pregnancy complications. It is hoped that there will be efforts to increase screening on certain aspects that will have a significant influence on increasing adherence to antenatal care visits.

Keywords: *Early Detection of Preclampsia; Android Based; Ante Natal Care Compliance*



Effectiveness of Android Based Antenatal Care Application to Enhance Antenatal Care

Public Health Center Pekanbaru (Study of **41** Literature)

Adherence and Pregnant Mothers Health at

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Abstract

According to WHO, the maternal death rate during pregnancy or within 42 days after the end of pregnancy is from all causes connected to or aggravated by the pregnancy or its management, but not caused by accidents/injury. The safe motherhood effort, which aims to lower MMR from 205 per 100,000 live births to 276 per 100,000 live births, is being implemented to prevent maternal and infant

mortality. The Android-based application's development intends to make it easier for the maternity clinic, health center, or other existing health facilities to provide medical services. Android-based Based can help registration officers manage patients, make it simpler for patients to consult with midwives or other health professionals, and make it simpler for midwives or other health professionals to learn about a patient's medical history. The purpose of this study is to review the literature on the ANC (Antenatal Care) examination, which aims to improve the physical and mental well-being of expectant women in the best possible way so that they can manage labor and delivery, prepare for exclusive breastfeeding, and return to reproductive health in a reasonable amount of time. Literature review is done on search engines, electronic database Proquest, and Google Scholar. Keywords entered into search engines or databases include "Enhance Antenatal Care", "Android Based" "Ante Natal Complications" and "Ante Natal Care ". After reading the articles and selecting them using the JBI literature review tools, 12 articles were obtained according to the RCT, quasi-experimental, and cross-sectional methods. Almost all research results state that there is a significant relationship between the number of Android-based pregnancy visits and the prevention of pregnancy complications. It is hoped that there will be efforts to increase screening on certain aspects that will have a significant effect on increasing adherence to antenatal care visits.

Keywords: *Enhance Antenatal Care; Android Based; Ante Natal Care*



Bioplastics from Kitchen Wastes: A Developing Green Technology

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Abstract

Plastic waste has become one of the biggest problems due to its excessive use, its difficulty in decomposition, and its huge mass, which has a lot of negative impacts on landfills and water pollution. The most possible solution to overcome this problem is to substitute synthetic polymeric materials with biodegradable materials known as bioplastics. Food wastes can be developed into environmentally friendly bioplastics, which will not only reduce environmental pollution occurring due to the natural fermentation of these wastes but also generate national revenue besides generating employment potential. These polymers can be degraded by microorganisms and water in compost piles. Application of bioplastics has several advantages over conventional plastics, such as a lower carbon footprint and GHG emissions, a lower energy cost in manufacturing, a reduction of permanent litter, and being much safer for the environment. In the food industry, the need for high-standard storage features and the urge for packaging with high economics, low ecological impact, ease of customization, and low encumbrance can be answered by compostable or degradable bioplastics, where kitchen waste may play an essential role. Advancements in biomedical applications of bioplastics have led to the development of drug delivery systems and therapeutic devices for tissue engineering. Nanocelluloses and their composites, which may be obtained from the processing of kitchen waste, may result in potential and economic sources for green plastic studies about the fabrication of medical implants, either in dental, orthopedic, or biomedical fields.

Keywords: *Bioplastics; Kitchen Waste; Environment; Renewable*



Elderly Fitness with Dance Therapy in the

Working Area of the Sindanglaut Health

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Abstract

Someone who reaches the age of 60 will experience the aging process. At this stage, the elderly will experience changes in physical function, one of which is caused by a lack of physical activity. Based on a survey conducted, data obtained from 15 elderly people showed that they often experienced stiffness in the legs, and among them, they said they rarely did sports and that their daily activities were only filled with watching TV, recitation, and cooking. The purpose of this study was to determine the effect of dance therapy on fitness in the elderly in the working area of Sindanglaut Health Center. This type of research is quasi-experimental with one group pretest-posttest design. The sample in this study was 97 respondents; the sampling technique used was purposive sampling; the instrument used was an observation sheet; and fitness measurements were taken using the Senior Fitness Scale guidelines. This research was conducted in the working area of the Sindanglaut Public Health Center, Cirebon Regency, on May 23, 2022 - June 07, 2022. Data analysis used the Wilcoxon test. The results of the Wilcoxon test obtained a p-value of 0.00. The probability value is smaller than a significant value of 0.05 (p value < 0.05), so it can be concluded that H_0 failed to be accepted or rejected, which means that the fitness of the elderly is influenced by dance therapy in the working area of Sindanglaut Health Center. It is expected that elderly activities such as dance therapy and elderly gymnastics can be applied to improve and maintain the fitness of the elderly.

Keywords: *Dance Therapy; Elderly Fitness; Daily Activities*



Mothers and Spouses in Eclampsia Prevention

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Abstract

Background: One of the ways to prevent eclampsia is through the involvement of preeclampsia mothers and spouses in their prevention practices. The digital era allows for more effective delivery of related Information and education for eclampsia prevention. The mobile application whose content is according to needs (appropriate) and friendly in its use are very important think. The objective of study was to determine the development of a mobile application that meets the needs (appropriate) and Friendly in its use for preeclampsia mothers and spouses in preventing eclampsia. **Research Methods:** This study was conducted in two stages. The first stage is to identify the mobile application content needs of the eclampsia prevention according to preeclampsia mothers, spouses and health workers using a need-level instrument. The second stage of mobile application development was based on the results of identifying needs, collaborating with Internet Tecknology experts and conducting mobile application usability testing using the SKAMA Question. **Results:** Results of identification of mobile application content material needs for preeclampsia mothers, spouses and health workers (midwifery), all items (20 items of closed statements) indicating >70% was Strongly Needed (SN). Meanwhile, preeclampsia mothers need material application content items were "Other pregnancy danger signs, Preparation for maternity financing and Fulfillment of nutrition during pregnancy each of 76.8%, Spouses Strongly Needed is about Causes of Preeclampsia and Eclampsia, What should a spouse do, Fulfillment of food during pregnancy, Information on the telephone number of a health worker (midwife) respectively 92.6%. According to health workers (Midwivery), the definition of Preeclampsia and Eclampsia and the Explanation of why you have to take medicine are 82.1% each. The mobile application usability test results showed that preeclampsia mothers and spouses responded positively to mobile application for eclampsia prevention.

Conclusions: All participants, more than $\geq 70\%$ stated that mobile application content needs to be according to needs. The results of the mobile application test showed that the application $\geq 50\%$ responded positively by preeclampsia mothers and $\geq 80\%$ by spouses. Furthermore, in its application, it is necessary to obtain support from policymakers and carry out periodic monitoring and evaluation of the consistency of application use.

Keywords: Mobile application, Appropriate and Friendly, Eclampsia prevention



The Effectiveness of Parent-Grandparent

Coparenting Relationship Based on the

Behavior in Toddlers **45**

Health Belief Model on Stunting Prevention

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Abstract

Introduction: As the number of working women increases, grandparents caring for toddlers has become a global phenomenon. The growth and development of toddlers are influenced by the parenting style of their grandparents; therefore, an effective joint parenting pattern is needed to prevent adverse effects. This study aims to analyze the effectiveness of the parent-grandparent co-parenting relationship based on the health belief model on stunting prevention behavior in toddlers. **Methods:** The study was conducted using a quasi-experimental design, and the sampling technique used was purposive sampling with a sample size of 60 grandparents who took care of toddlers because their mothers left to work. The sample size is 30 respondents in the treatment group and 30 respondents in the control group. The sampling technique uses a purposive sampling technique. The independent variable in this research is the implementation of the parent-grandparent co-parenting relationship module based on the health belief model. The dependent variable in the research is stunting prevention behavior in toddlers. Inclusion criteria, namely data collected using a questionnaire. Data were analyzed using the Wilcoxon Signed Ranks Test and the Mann Whitney U-test. **Results:** The results showed that the behavior of grandparents in preventing stunting in toddlers increased after being given the module ($p = 0.000$). **Discussion:** The parent-grandparent

co-parenting relationship module based on the health belief model is a health education medium that can increase the knowledge, attitudes, and actions of grandparents in preventing stunting in toddlers. If there is a positive co-parenting relationship between parents and grandparents, then the role of the grandparents as the main caregiver for the toddler when the mother is left working will not interfere with the attachment between parents and children.

Keywords: *Co-Parenting; Grandparent Care; Working Mother*



Determinants of the Quality of Covid-19

Surveillance at Public Health Centers: A

Indonesia **46**

Cross-sectional Studies in Several Districts in

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Abstract

Background: The quality of Covid-19 surveillance in various developing countries, including Indonesia, is still a serious problem, which is related to data quality influenced by various individual

and institutional factors. **Objective:** Analyzing the determinants of the quality of Covid-19 surveillance at Public Health Centers in several regencies/cities in Indonesia. **Methods:** This study utilized a descriptive correlational design, a sample of 190 Public Health Surveillance Workers in Kuningan District, Majalengka District, Indramayu District, Cirebon District and City of Cirebon who met the inclusion and exclusion criteria. Data collection was conducted by interviews from 1 November 2022 to 30 January 2023. The variables studied are sex, education, knowledge, workload, supervision and readiness of facilities with the quality of surveillance. Analysis of univariate and bivariate data with chi-square test. **Results:** the results of bivariate analysis sex and education ($p=0.654$, $p=0.282$), knowledge ($p = 0.200$), workload ($p = 0.000$), supervision ($p = 0.000$) and readiness of surveillance facilities ($p = 0.000$). **Conclusion:** There is no relationship between sex, education and knowledge variables, the variables of workload, supervision and facility readiness are related to the quality of surveillance. Recommendations need to regulate the workload of surveillance officers with strict supervision and supported by adequate facilities to support surveillance optimization.

Keywords: *Quality of Surveillance; Covid-19; Public Health Center*



The Implementation of Head of Room

Management Functions to Enhance Hospital

Evaluation of the Literature)

47

Nurse Performance in Pekanbaru (An

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Abstract

For the community or patients, the hospital should offer the highest level of care as a health service center and a component of a health facility that offers health services in an endeavor to enhance health status. The professional nursing staff designated as the head of the room is given the duty and power to direct or control nursing service activities. It is closely tied to the rising demands of sustaining patient trust in services that professional nurses' performance can give patients a sense of security and comfort. This study's goal was to conduct a literature evaluation on the impact of the Pekanbaru Hospital's room management function on nurses' performance in providing nursing care. Proquest, Google Scholar, and search engines are used for literature reviews. Search engines and databases often use the terms "management functions," "head of space," and "nurse." Twelve publications were collected utilizing the RCT, quasi-experimental, and cross-sectional methodologies after reading the articles and selecting them using the JBI literature review tools. The majority of research findings indicate that the performance of nurses in implementing nursing care at Pekanbaru Hospital is influenced by the head of the room management function. At Pekanbaru Hospital, it is hoped that efforts will be made to increase the function of the head of room management and the efficiency of nurses in providing nursing care.

Keyword: *Functions of Management; Head of Room; Nurse Performance*



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Abstract

Having a baby can be one of the most exciting times in a woman's life, but the fact is that most new mothers are not able to adjust to change. This condition is often called postpartum blues. These are hormonal changes that can cause anxiety, crying, and restlessness that can go away within the first two weeks after giving birth. Postpartum blue causes mothers to become passive and ignore their babies. This condition is often ignored so that it can develop into a serious mental disorder. The purpose of this study was to describe the results of the seventh day of postpartum blue screening in Batam. Methods The research design method uses non-experimental research methods with quantitative descriptive methods. Sampling technique using the total sampling technique with as many as 90 respondents. Instrumental research using the EDPS questionnaire (Edinburgh Postnatal Depression Scale), which consists of 10 questions. Data analysis using univariate analysis with frequency distribution. The results showed that as many as 30 respondents (37.8%) of postpartum mothers had postpartum blues, 50 respondents (55.5%) experienced postpartum blues, 7 respondents (7.8%) experienced the possibility of postpartum depression, and 3 respondents (3.3%) experienced postpartum depression. It can be concluded that more than half of the respondents experienced postpartum blues, so it is important for the medical team to optimize their role in preventing and overcoming postpartum blues.

Keywords: *Postpartum Depression; Hormonal Changes; Postpartum Blue; Batam*



The Effectiveness of Premarital Counseling on Pregnancy Readiness

49

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Abstract

Background: The WHO reports that the prevalence of pregnant women worldwide who experience anaemia is 41.8%. Preparation for pregnancy, such as nutrition management for pregnant women, mental readiness to face pregnancy, physical examination and screening, and knowledge about

infectious diseases that are at risk of transmitting to the foetus (Hepatitis, HIV, Toxoplasma, and Rubella) can prevent complications of pregnancy and childbirth such as bleeding caused by anaemia, prevent infection and birth defects. **Aim:** to determine the effectiveness of premarital counselling using flipchart media on the readiness of the prospective bride and groom to face pregnancy. **Methods:** This study was a quasi-experimental design with a control group posttest only design at the working area of the Sungai Penuh public health centre from January to September 2022. There were 200 premarital women in the sample of this study who were taken by using a consecutive sampling method. The samples were divided into two groups, the control group and the intervention group. The data were collected using observation sheets. Data were analyzed in univariate and bivariate terms by using T-test analysis. **Results:** The results of the univariate analysis found that the average pretest readiness was 1.63 or not ready, the average posttest readiness was 2.63 in the ready category, and the data normality was tested through the Kolmogrov-Smirnov test with the results of the pretest ($p=0.200$) and posttest (0.200) and concluded that the data were normally distributed. The paired t -test test obtained a value of (P -Value: 0.0001). **Conclusion:** This study concluded that the effectiveness of premarital counselling using flipchart media on readiness to face pregnancy.

Keywords: Premarital Counseling; Pregnancy Readiness; Flipchart



The Effect of Telemonitoring for Preventing

30 Days Re- Admission among Heart Failure

Patients: A Systematic Review

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Abstract

Introduction: Heart failure (HF) is characterized by a decrease in functional capacity over time, accompanied by episodes of acute decompensation that often require hospitalization. It accounts for approximately 1%-2% of healthcare expenditures in most developing countries. Following the initial admission, up to 50% of patients experience acute conditions within six months of discharge, and 45% unfortunately succumb within the first year. Re-hospitalization rates for HF remain alarmingly high at 23.2% within 30 days, with a median re-hospitalization time of 12 days after discharge, resulting in significant costs per patient. To address this issue, telemonitoring of HF patients has been proposed as a means to reduce the burden of readmission and, subsequently, decrease the overall cost of treatment. However, the impact of telemonitoring on healthcare utilization remains limited, particularly in developing countries. **Objective:** This systematic review aims to describe effective strategies for implementing telemonitoring to prevent or reduce the 30-day readmission rate following patient discharge from the hospital. **Methods:** Data was collected from several databases, including ScienceDirect, ProQuest, EBSCO, BMJ, ResearchGate, and Google Scholar. Articles published between 2019 and 2022 were considered, and the selection process was based on compatibility with relevant keywords. **Results and Discussion:** Sixteen articles were reviewed, focusing on telemonitoring-based home interventions for heart failure patients. The THRIVE Study showed increased 7-day follow-up and reduced in-person visits, with comparable 30-day outcomes. The TMP decreased emergency department admissions but had no impact on hospitalizations. Digital Health Monitoring, driven by real-time vital sign data, reduced readmissions and costs while improving patient outcomes. The ESC Heart Map mobile system reduced hospitalization, readmissions, and improved self-care for CHF patients. Wearable Monitoring Analytics enabled early detection of rehospitalization. Nurse-led telemonitoring programs showed promise in preventing rehospitalization and enhancing patient quality of life. **Limitations:** Some studies found no impact of telemonitoring on readmissions, and not all programs were easily accepted or implemented by patients. **Conclusion:** Digital telemonitoring, coupled with comprehensive education, effectively reduces readmission rates for various causes. Monitoring vital signs through mobile devices and wearables helps HF patients recognize warning signs, promoting self-care and enhancing quality of life.

Keyword: *Telemonitoring; 30 Days Readmission; Rehospitalization; Heart Failure*



Experiences and Psychological Responses

among Mothers and Fathers During

Postpartum Period: ANarrative Review

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Abstract

Backgrounds: Postpartum is a condition experienced by both fathers and mothers. Evaluation of postpartum distress incidence shows that parents have various responses. Identifying the experiences and responses of fathers and mothers during postpartum can provide guidance for clinicians to provide optimal healthcare services. **Objective:** The aim of this study is to identify the experiences and responses of fathers and mothers during postpartum and to identify alternatives that can be made. **Methods:** This study is a narrative literature review that refers to the PRISMAframework. Journal articles were collected from four databases, namely Google Scholar, ScienceDirect, Scopus, and PubMed. To strengthen the selection results of articles, the JBI instrument was used to critically assess articles that will be synthesized and then the data are presented in a tabular and narrative form. **Results:** The search results yielded 1,778 research articles. After the selection process, 11 articles were eligible for review. In this study, both fathers and mothers had experiences of postpartum distress. In the fathers group, negative feelings such as lack of role, masculinity, lack of knowledge about postpartum distress, and the need for healthcare services were frequent. Meanwhile, in the mothers' group, the transition process became more complex because of the impact of childbirth experiences. Breastfeeding became a challenging thing for mothers and triggered postpartum distress. **Conclusion:** The transition to becoming a parent is complex and can cause both negative and positive responses. Strengthening interventions that can reduce postpartum distress in postpartum couples is needed to prevent long-term impacts from postpartum.

Keywords: *Postpartum; Psychological Responses; Mother; Father*



Knowledge of Stunting Prevention in Pregnant Women

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Abstract

Stunting is a chronic nutritional problem in the long term, that is influenced by various factors. Including the First 1000 Days of Life (HPK) or golden age, which starts from pregnancy until the child is 2 years old. The health and nutritional conditions of the mother during pregnancy greatly affect the growth of the fetus and can increase the risk of stunting, it can determine the quality of human resources in the future. The purpose of this study was to determine the knowledge of pregnant women in preventing stunting on Stokok Island (Hinterland Region) in Batam, Indonesia. The research design used is descriptive, using purposive sampling. Results of the study on knowledge of

stunting prevention in pregnant women on Stokok Island (Hinterland region) showed that 17.5% had good knowledge, 37.5% had sufficient knowledge and 45% had insufficient knowledge. The recommendation in this study is that assistant health workers increase the provision of information to prospective mothers of adolescents, women of childbearing age and especially pregnant women, and in classes for pregnant women, it is hoped that there will be special stunting material.

Keywords: Knowledge; Prevention of Stunting; Pregnant Women



Family Independence in Handling Stunting

Toddlers in Batam, Indonesia

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Abstract

The family is the smallest unit of society. Family is one of the important aspects of nursing because it determines the health and illness of family members, which will have an impact on health problems, one of which is stunting. Stunting in toddlers is an indication of chronic malnutrition as a result of a bad condition that lasts a long time from birth. Batam will become the locus of stunting in 2022, with a prevalence of 6.1%. Stunting can be overcome if there is family independence, where families are able to identify problems, find alternative solutions to problems, and use resources properly. This study aims to determine the level of family independence in handling stunting in toddlers in the working area of the Sei Pancur Health Center, Batam. This research is quantitative research using the descriptive method. The number of samples is 55 families that fit the inclusion criteria. purposive sampling technique. The results of the research based on the characteristics of the respondents based on age were mostly 26–35 years (60%); the highest education level was SMA/SMK (58.2%); and working as private employees (41.8%). The level of family independence in handling stunting is at level I of 67.3%, there is no level of family independence at levels III and IV. This shows that families with stunted children have not been able to carry out simple treatments as recommended, have not been able to carry out active preventive measures, and have not been able to carry out active promotional actions. It is hoped that nurses can provide guidance to families to help them care for stunted children independently at home so that family independence can increase.

Keywords: *Family Independence; Stunting; Toddlers*



Family Support for Elderly Activity in Joining

Posbindu in Tasikmalaya, Indonesia

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Abstract

Elderly is a state of loss of ability to repair itself and maintain its normal function. The integrated coaching post (posbindu) is one of the health services for elderly people in Indonesia. The activeness of the elderly coming to Posbindu is a form of elderly health behaviour in an effort to maintain and improve their health optimally. Family support is one of the factors that influence elderly visits to Posbindu. The aim of this study was to determine the relationship between family support and the activeness of the elderly in attending posbindu. This research method used quantitative methods. The sample used in this study consisted of 36 respondents obtained using total sampling. A cross-sectional design is used in this research. univariate and bivariate methods were used in this study. The results show that elderly did not receive support from 28 respondents (77.8%), received family support from 8 respondents (22.2%), and elderly was not actively involved in posbindu. 29 respondents (80.6%) actively participated in posbindu was 7 respondents (19.4%). The results of the bivariate test obtained a significant value of 0.002, so it can be concluded that there was a relationship between family support and the activeness of elderly attending posbindu. Hope that families increase their knowledge about how to provide family support when caring for elderly people properly.

Keywords: Family Support; Elderly; Posbindu



Behaviour 55

Enhancing Adolescents' Vaginal Hygiene

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Abstract

Introduction: Incorrect vaginal hygiene practices are still commonly found among adolescents in Islamic boarding schools in Indonesia. This study aimed to evaluate the effect of health education using a combination of two methods, namely Jigsaw and STAD, on adolescent vaginal hygiene behavior using Lawrence Green's theory. **Methods:** This study used Quasi Experiment design. The number of involved samples was 64 out of 153 students who were divided into two groups (Treatment Group and Control Group). The sampling technique used cluster sampling by shuffling room numbers. The independent variable was health education using Jigsaw and STAD methods. The dependent variable was vaginal hygiene behavior. The instruments used consisted of two questionnaires and one action checklist sheet which had been tested for validity and reliability with results in the knowledge category $r=0,905$, attitude $r=0,947$ and action $r=0,928$. The data analyses were done using the Wilcoxon Signed Rank Test and the Mann Whitney U Test. **Results:** Health education using the combined methods of Jigsaw and STAD has an influence on adolescent vaginal hygiene behavior of Islamic boarding school. There was an effect after treatment on the Treatment Group with $p=0,000$ (knowledge), $p=0,005$ (attitude) and $p=0,005$ (action). Comparison of pre and post test scores between the two groups for knowledge indicators $p=0,565$ to $p=0,000$, attitude indicators $p=0,317$ to $p=0,040$ and action indicators $p=0,804$ to $p=0,002$. **Discussion:** Health education using a combination of Jigsaw and STAD methods is used to develop health promotion nursing interventions in improving reproductive health behavior.

Keywords: *Jigsaw; STAD; Behaviour; Reproductive Health; Vaginal Hygiene; Adolescents*



Preventing Sexual Violence on Women via Nursing Interventions: A Scoping Review

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Abstract

Sexual violence is an act of a sexual nature, either physical or psychological. The cause of sexual violence is the lack of public understanding and awareness of incidents of sexual violence. Nurses have a role as educators, advocates, and trainers to prevent sexual violence against women. The

purpose of this study is to describe nursing intervention methods to prevent sexual violence in women. This study used a design scoping review. Articles used in this study are from CINAHL, PubMed, and Scopus databases. The keywords used in English are "nursing intervention or nursing care" and "sexual violence or sexual abuse" and "prevent or preventing" and "women". The inclusion criteria for articles in this study were full text, randomized control trial or quasi-experimental research design, English language, samples are women, and the publication period of the last 10 years (2013–2022). We found 11 articles that discussed nursing interventions to prevent sexual violence against women. The range of the samples is 39–1199 women. Several articles from developed countries. There are four methods of nursing intervention that can be performed, namely social support intervention, parental-focused intervention, cognitive behavior therapy, and improvement skill intervention. In order to achieve the best results, nursing interventions are implemented in comprehensive nursing care, paying attention to biological, psychological, sociological, spiritual, and cultural factors. This study demonstrated that nurse intervention, which focuses on enhancing sexual violence awareness, is one strategy for preventing sexual violence against women.

Keywords: *Nursing Intervention; Prevent; Sexual Violence; Women*



Nursing Interventions for Reducing Sexual

Risk Behavior among Adolescents: A

Scoping Review **57**

Abstract

Problems with risky sexual behavior in adolescents cause various physical and psychological problems. The physical problems experienced by the victim were sexually transmitted diseases, diseases of the genitals, and underage pregnancy. While the psychological problems experienced by victims are stress, depression, anxiety, and the risk of suicide. Nurses have a role as educators, advocates, facilitators, and counsellors to provide nursing interventions to reduce risky sexual behavior in adolescents. The aim of this study is to describe a method of nursing intervention to reduce risky sexual behavior in adolescents. This study uses a design scoping review with the search strategy PRISMA Extension for Scoping Reviews. Search for articles based on inclusion criteria, namely, the sample is adolescents, randomized control trials and quasi-experiment designs, nursing interventions, and the publication period is the last 10 years (2014–2023). The search keywords for articles are risky sexual behavior, nursing interventions, and youth through three databases, namely CINAHL, PubMed, and Scopus. All authors found 10 articles based on inclusion and exclusion criteria that discussed nursing interventions to reduce risky sexual behavior in adolescents. The incidence of risky sexual behavior in adolescents occurs in both developed and developing countries. The range of respondents in this study is 66–5539 youth. The implementation of nursing care is carried out comprehensively by nurses in collaboration with schools, parents, and the environment. The author found that there are three types of nursing intervention methods, namely school-based programs, community-based programs, education programs, and online programs. In general, educational activities and peer tutoring are efforts to empower adolescents and parents and are provided by nurses. Then, this nursing intervention requires collaboration with various parties, such as the community (parents, youth, activists, social workers) and other health workers such as doctors and psychologists to reduce the incidence of risky sexual behavior in adolescents.

Keywords: Adolescents; Nursing Interventions; Risky Sexual Behavior



Effectiveness of Polyhexamethylene

Biguanide among Patient with Diabetic

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Abstract

Diabetic wounds are injuries that occur in patients with diabetes and involve disturbances in the peripheral and autonomic nerves. Diabetic wounds are a major complication of diabetes and a global public health problem. There is no wound cleansing intervention using Polyhexamethylene Biguanide as a wound cleansing fluid against diabetic wound biofilm. To identify the effect of Polyhexamethylene Biguanide on biofilm among patients with diabetic wounds. This research was a quasi-experiment with a pre-test and post-test approach. In this study, the research subject will be given a pre-test before the intervention. After that, a post-test will be given to see the final results of the intervention. The sampling technique was carried out by total sampling with a total of 30 respondents. This research instrument uses a biofilm observation sheet. The statistical test used was univariate and bivariate using paired sample t test. The results showed that average pre-test biofilm observation score was 7.63 ± 0.490 and post-test 3.97 ± 0.765 . The results of the study showed that there was a difference in the pre-test and post-test biofilm observation scores with a *p*-value of 0.000. After using Polyhexamethylene Biguanide on Biofilm on diabetic wounds, a *p*-value of <0,000 (*p*<0.05) was obtained so that Polyhexamethylene Biguanide was effective against Biofilm wound diabetic. Patient with diabetic wounds are expected to be able to use Polyhexamethylene Biguanide as an effort to remove Biofilm and aid in wound healing.

Keywords: *Polyhexamethylene Biguanide; Biofilm; Patient with Diabetic Wound*



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Abstract

Appetite tends to be lower in tuberculosis patients. This is caused by tuberculosis, which can affect decreased appetite, impaired absorption of nutrients, and increased metabolism, which causes weight loss. The article search used the PubMed, Proquest, Ebsco, Google Scholar and Mendeley databases, with a focus on research on sleep duration related to appetite with the keywords 'Tuberculosis', 'sleep duration', and 'appetite'. The criteria for articles are studies published in 2018–2023, in Indonesian and English, and studies with Randomized Control Trials (RCT), experiments, and cross-sectional studies. Selected articles were evaluated using the JBI Form (Joanna Briggs Institute). report is presented qualitatively. A total of seven articles were taken because they met the inclusion criteria. In studies conducted in Turkey, England, the United States and China, the actions obtained by researchers led to the regulation of bedtime as a treatment that can affect increased appetite. It is recommended that to increase appetite in children with tuberculosis who have decreased appetite resulting in malnutrition, treatment can be tried by limiting sleep time and improving the quality of sleep given to these children. However, further, more in-depth studies are needed to test the actions found.

Keywords: *Tuberculosis; Sleep Duration; Appetite*



Prescribing Intradialytic Exercise to Improve Physical Function for End-Stage Renal

A Systematic Review 60

Disease Patients Undergoing Hemodialysis:

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Abstract

Background: Chronic kidney disease or renal failure, is the sixth leading cause of death in the world. In Indonesia, the rate of chronic renal failure increases annually and is named the 10th leading cause of death. End-stage renal disease (ESRD) patients needed replacement therapy hemodialysis (HD). ESRD patients undergoing HD have characteristically low levels of physical activity. These low levels

of activity are associated with increased morbidity and mortality. Therefore, intradialytic exercise (IDE) could be important in addressing this concern. However, IDE is not routinely practiced in renal units for hemodialysis patients due to a lack of evidence of its effectiveness. **Objective:** This systematic review analyzes the efficacy of the use of IDE as an intervention for end-stage renal disease patients, which includes aerobic, cycling, and resistance training regarding physical function, mobility, and decreased levels of dependency. **Methods:** The scope of the review covers full-text articles published between December 2019 and April 2023 on the following platforms: PubMed, EBSCO, Wiley, Science Direct, ProQuest, Scopus, Web of Science, and Springer. The review was conducted following the PRISMA guideline statement based on PICO (Population, Intervention, Comparison, Outcome). To determine which study to include in the analysis, a set of criteria were applied, including requiring that the study include adult ESRD patients who have received at least 3 months of hemodialysis. The review article was assessed using the JBI critical appraisal tool. **Results:** A total of 30 studies were selected from more than 1000 articles, but only 11 randomized controlled trial (RCT) studies are included in this systematic review. IDE covering aerobic, resistance, and pedaling exercises was shown to significantly improve physical function, increase muscular strength, increase the 6-Minute Walk Test (6MWT), improve quality of life (QoL), and increase independence. **Conclusion:** IDE practices in the renal unit were shown to have a significant positive effect on physical function, increase muscle strength, increase 6MWT, and improve QoL. Among the studies reviewed, there were a limited number of RCT studies. In addition, there were issues regarding the number of respondents and the quality of the analysis. There is a lack of diversity in the types, intensity, duration, and modality of exercises investigated; therefore, data was limited for several outcomes.

Keywords: *End-Stage Renal Disease; Hemodialysis; Intradialytic Exercise; Systematic Review*



Challenge of Parents Caring for Children with

Chronic Kidney Disease: Integrative Review

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Abstract

Background: Children with chronic kidney disease (CKD) have parental responsibility for their care and medical management throughout their lives. The causes of distress associated with caring for a child on dialysis are rarely known to parents. The problems faced by parents require support and empowerment to be able to improve the quality of life for their children. For this reason, information is needed in the form of the challenges faced by parents or caregivers of CKD children, perceived problems, and how parents overcome them through systematic literature review research. **Objective:** This study described the challenge of parents caring for children with CKD undergoing dialysis.

Methods: An integrative review study was conducted to explore the challenge of parents caring for children with CKD undergoing dialysis. Electronic databases and reference lists of relevant articles were searched until March 2023. Guided by PRISMA guidelines, five electronic databases - PubMed, Ebsco, Proquest, Science Direct, and Google Scholar - were searched for relevant articles published in English. Critical Appraisal Tools/JBI qualitative and cross-sectional checklists were utilized to appraise the quality of the included articles. **Results:** Eleven articles were identified according to the review steps as challenges faced by parents in the form of stress, burden, depression, lack of sleep, fatigue, dynamics and emotional disturbances in family members, responsibility, guilt, suffocation, hopelessness, inhibition of subjectivity, lack of understanding, tensions in the family, the health care system, satisfaction, and disappointment, as well as objectification and depersonalization. **Conclusions:** Many of the problems faced by parents in caring for children with CKD require action in the form of social support, knowledge about home care, the impact of dialysis, and the ability to be fair to siblings.

Keywords: Dialysis; Children; Parent; Experience



Systemic Literature Review **62**

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Abstract

Introduction: Perinatal depression can occur in 10-15% of women from pregnancy to postpartum. Lack of knowledge about the process of pregnancy and childbirth is a factor that influences the incidence of prenatal depression. Having prenatal depression also increases the risk of developing postpartum depression. 6 weeks after giving birth and a lack of knowledge about preparing for the role of motherhood, postpartum care, and newborn care are factors that cause postpartum depression. This shows that education about pregnancy, childbirth, postpartum care, newborn care, and mental health is very important from the time of conception. **Objective:** This systematic literature review was conducted to determine the effectiveness of health education in controlling perinatal depression, which will be assessed through the EPDS score. **Methods:** This systematic literature review was conducted using the PRISMA model by searching for articles through four electronic databases: ScienceDirect, Google Scholar, PubMed, and SAGE with inclusion criteria being respondent mothers with perinatal depression (prenatal or postpartum depression), original article, controlled trial methodology (RCT) or quasi experiment, published from 2018 to 2023 in English, and intervention in the form of education via telephone or internet media. Exclusion criteria were journals older than 2018, a mother with acute psychosis, and a lifetime history of depression. Based on the inclusion and exclusion criteria, through the process of extracting titles and abstracts of articles, 10 articles were obtained, which entered the analysis stage. **Results:** The initial search found 2283 articles, and after removing duplicate articles, the number of articles filtered was 1383, and 10 articles met the inclusion criteria. All of these articles provide education to control postpartum depression. The educational materials provided are almost the same, including preparation for childbirth, care for pregnant women and postpartum women, baby care, and maternal mental health. The majority of educational methods use digital or online media in the form of booklets, videos, and text messages, and only one article uses face-to-face education using PowerPoint media. The minimum intervention duration is 4 weeks, and the maximum is 4 months. The effectiveness of the intervention in reducing the EPDS score or improving the mental health of the mother was not significant in the two studies, whereas eight studies showed that there was a significant difference in the EPDS score between the intervention and control groups. **Conclusion:** Health education carried out during pregnancy is effective in controlling perinatal depression.

Keywords: *Health Education; Perinatal; Postpartum; Depression*



Determinants and Prevalence of Hepatitis B in Multigravida Pregnant Women in Bengkulu,

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Indonesia

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Abstract

Background: Hepatitis B virus (HBV) infection can cause substantial morbidity and mortality. Hepatitis B poses a major threat to public health on a global scale. People with chronic hepatitis B virus (HBV) infection are at higher risk for liver cancer and cirrhosis and 70%-85% more likely to die prematurely than the general population who are hepatitis B negative. The hepatitis virus will cause 1.5 million annual deaths worldwide in 2019. The prevalence of hepatitis B was 0.94% in 2019, with 3 million new cases of chronic hepatitis B infection. Transmission of the liver disease virus (HBV) vertically or horizontally is easily transmitted by anyone. The prevalence of hepatitis B was 0.94% in 2019, with 3 million new cases of chronic hepatitis B infection. There have been 990,000 new HBV infections in Africa and 470,000 deaths in the Western Pacific. **Material and Methods:** This study uses quantitative methods with a case control approach. The sample consisted of 76 pregnant women who were positive for hepatitis B and 76 respondents who were pregnant women who were negative for hepatitis B. The sampling technique uses total sampling. Data analysis using Chi-squared

analysis and multiple regression logistics. **Results:**

Most groups infected with hepatitis B are in the at-risk age range (51.4%) with the age of 16-40 years, have low education (52.9%), have a history of risky types of delivery (vaginal) (53.7%), have a history of blood transfusions (40.9%), and the prevalence of hepatitis B in Bengkulu City is 2.8%. There was a significant association between age ($p = 0.004$), OR = 2.8, education ($p = 0.004$, OR = 2.8), history of type of delivery ($p = 0.003$, OR = 1.9), and history of blood transfusions ($p = 0.002$, OR = 3.7). The dominant factor associated with the incidence of hepatitis B was the history of vaginal childbirth ($p = 0.032$, OR = 1.724). The prevalence of hepatitis B in Bengkulu City is 2.8%. **Conclusion:** The results of the study can be used to increase public knowledge about efforts to prevent and control Hepatitis B in pregnant women by screening for Hepatitis B in pregnant women through HBsAg examination as one of the strategies to support the WHO and Ministry of Health programs related to triple elimination (Hepatitis B, Syphilis, and HIV/AIDS).

Keywords: Age; Education; History of Type of Childbirth; History of Blood Transfusion; Prevalence; Hepatitis B in Pregnant Women



Parents Involvement in the Prevention and

Management of Obesity in School Children: A

Systematic Review 64

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Abstract

Introduction: Obesity in children is a health problem that needs attention because the incidence rate

increases annually. The impact of obesity on children will affect their physical and psychosocial development. They are at high risk of becoming obese in adulthood and have the potential to experience various causes of morbidity and death. Prevention and handling efforts are needed to overcome violations by involving parents. Parents play an essential role in influencing their children's lifestyle and eating behavior, contributing to disease incidence. **Methods:** This systematic review explores recent studies aimed at preventing obesity in school-age children through parent-centred interventions with school-age children (6–12 years). The databases (PubMed, Science Direct, Google Scholar, and EBSCO) searched articles published from 2018 to 2023 that used interventions to prevent or reduce obesity. **Results:** Only ten of the initial 194 articles met the inclusion criteria and were included in the analysis. **Conclusion:** Interventions for prevention and management, which include dietary modifications, physical activity practices, behavioral strategies, and the active involvement of parents, can help overcome childhood obesity, especially in school-age children. However, the active involvement of parents is needed to improve and seek the interventions carried out.

Keywords: Parent Involvement; Prevention; Management; Obesity; School Children



Intervention and Evaluation of Mobile

Technologies for Patients Safety in Nursing:

Scoping Review 65

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Abstract

Background: Patient safety is a global concern because health professionals have an ethical responsibility to protect patient safety within the context of health care. There is no systematic review of the existing literature on mobile applications and their effectiveness and benefits for improving patient safety culture among nurses. **Objectives:** The purpose of this research was to fill in the gaps in the outcome evaluation of mobile application technologies by conducting a systematic analysis of existing mobile application interventions for enhancing patient safety culture among healthcare providers, particularly nurses. **Methods:** The protocol for this study was based on the 27-item Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) extension for scoping reviews. Three fundamental issues were addressed by combining three keywords: "mobile app," "patient safety," and "nurse or nursing." PubMed (MEDLINE), Scopus, and CINAHL (Cumulative Index to Nursing and Allied Health Literature) were searched through to find relevant articles. The papers published between January 2008 and April 31, 2023, were identified. **Results:** A total of 771 published publications were obtained from the databases. Following the full-text review, five papers were selected for this scoping review. One study was conducted in Indonesia, while others were conducted in Taiwan, the United States, Argentina, and Brazil. These mobile application interventions were delivered using technology platforms such as smartphones. The majority was used for education purposes, a check list, and reporting incidents to improve patient safety. The included study found that the application was effective, adequate, and useful enough to be used to improve patient safety. **Conclusion:** The use of mobile application technologies to improve their patient safety culture. Patient safety culture among nurses might be greatly enhanced by implementing mobile technologies; however, so far, mobile technologies have not been extensively adopted and integrated into everyday practice.

Keywords: Mobile Technologies; Patients Safety; Nursing; Scoping Review



Modern Wound Treatment in the Management of Diabetic Foot Ulcer (DFU)

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Abstract

Wound healing is a complex and tightly regulated process that is essential for maintaining the barrier function of the skin along with all its other functions. To prevent long-term wound complications and worse conditions, it is necessary to treat the patient's wound. Modern bandages have been used for new wound care techniques where, in principle, modern wound care keeps the wound moist so that the wound healing process can occur, maintaining tissue fluid deficiency and cell death. Wound care using the principle of balanced moisture (moisture balance) is known as modern dressing methods and uses more modern dressings. The aim of this study was to determine the effect of modern sanitary napkins on the healing process of chronic wounds on the feet at the Kampuang Wound Care Clinic in Solok City. This research is quantitative with a quasi-experimental design and a One Group Pretest-Posttest Design approach. The population in this study was comprised of all patients with indications of having chronic foot wounds treated at the Kampuang Wound Care Clinic. The research was conducted in August 2022. The sample in this study was 15 people. Sampling was done by purposive sampling, and the data were analyzed using Univariate and Bivariate. The results of the univariate analysis showed that the average chronic wound on the leg before modern dressing was 34.67, and the average healing rate for chronic wounds on the leg after modern dressing was 21.13. The results of the bivariate analysis showed that there was an effect of modern sanitary napkins on the healing process of chronic wounds on the feet (P value = 0.001).

Keywords: Modern Dressing; Wound Care; Chronic Wounds



New Modification Via Matrix Splitting to Solve Two-Dimensional Nonlinear Porous Medium

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Equations

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Abstract

The porous medium equation is a nonlinear partial differential equation that has many applications in the real world. The solution of the porous medium equation is interesting because it exhibits a finite propagation speed into a zero, for instance. Therefore, this paper aims to obtain the solution with greater accuracy while maintaining a good efficiency level compared to a similar study conducted in the past. This paper investigates the performance of a new modification via matrix splitting in deriving two new iterative methods that focus on the solution of a two-dimensional nonlinear porous medium equation. The derivation of the method utilizes the unconditionally stable implicit finite difference method and Newton linearization procedure. A full comparison study emphasizing the number of

iterations, program time, and maximum absolute errors is conducted to show the performance of the proposed methods against methods such as Gauss-Seidel, successive over-relaxation, and modified successive over-relaxation. The study found that the new-split successive over-relaxation and the new-split modified successive over-relaxation gave more accurate solutions than the Gauss-Seidel, successive over-relaxation, and modified successive over-relaxation methods. By offsetting the small number of iterations and program time, both new-split iterative methods give smaller absolute errors than the traditional iterative methods. Future work will investigate a method of estimating the optimum parameters and a choice of matrix splitting that can improve performance further.

Keywords: *Porous Medium Equation; Finite Difference Method; Newton Method; Matrix Splitting; Iterative Method; Efficiency*



Cervical Cancer Screening among Women: A Systematic Review

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Abstract

Background: Cervical cancer is one of the major concerns of public health importance in today's world. It is a leading cause of mortality in women of reproductive age worldwide, mainly in developing countries. It is almost always associated with human papilloma virus (HPV) infection. A reduction in mortality and morbidity due to cervical cancer is possible through early detection and treatment. The major factors influencing the early detection of cervical cancer are knowledge regarding risk factors, screening, Pap smears, and symptoms among women. **Objectives:** To find out about cervical cancer screening among women and their knowledge, attitude, and practice. **Methods:** This systematic review search used Science Direct, PubMed, and Google Scholar database sources. **Results:** 17 articles describing knowledge, attitudes, and practices for cervical cancer screening. Knowledge and attitudes toward cervical cancer screening are essential, but practice is low. Similarly, married women who have adequate knowledge and/or good attitudes are more likely to practice cervical cancer screening, although this is not statistically significant. There is a need to promote and encourage women to undergo early cervical cancer screening at the precancerous stage by informing them of their susceptibility to cervical cancer. **Conclusion:** The conclusion suggests that there is a significant correlation between knowledge of cervical cancer screening and certain factors, such as sexual partner status and educational status. There is a significant association between attitudes toward cervical cancer screening and having a positive attitude toward cervical cancer. Screening is significantly related to cervical cancer screening practices. Health professionals need to disseminate cervical cancer screening information and offer cervical cancer treatment during health care appointments.

Keywords: Cervical Cancer; Knowledge; Attitude; Practice



Breast Cancer Knowledge and Practice of

Breast Self Examination among Female: A

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Abstract

Background: Breast cancer is the leading cause of death worldwide, with nearly 1.7 million new cases diagnosed each year, accounting for 12% of all new cancer cases and 25% of all cancers in women. Breast self-examination (BSE) is a simple, inexpensive, and non-invasive method used to detect breast cancer at an early stage. **Objectives:** A systematic review was conducted to evaluate the knowledge and practice of breast cancer screening among females. **Methods:** A systematic search of PubMed, ScienceDirect, and Google Scholar was performed to identify relevant published studies. The searches were limited to articles published in the English language in the last 10 years, focusing on the knowledge of breast cancer screening and practice among women. The Preferred Reporting Items for Systematic Reviews (PRISMA) guidelines were followed. **Results:** Twenty-one articles were included in the review, which examined the knowledge and practice of breast self-examination among women. The majority of women had heard of BSE but did not regularly perform it on a monthly basis. Most of the reviewed studies showed a significant association between knowledge of breast cancer and factors such as education level, marital status, and age of the participants. **Conclusion:** The knowledge and practice of breast self-examination among women is still low. Therefore, there is a need for strategies to increase the level of knowledge and implementation of breast self-examination. When performed correctly, breast self-examination is one of the most feasible strategies for the early detection of breast

cancer. **Keywords:** *Breast Cancer; Self Examination; Knowledge; Practice*

