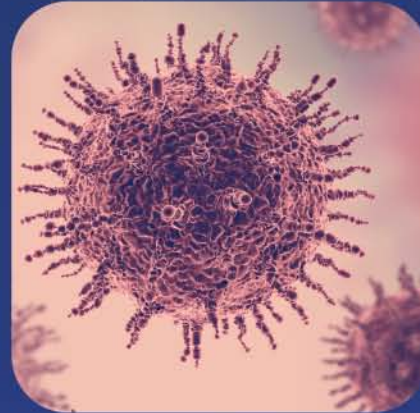
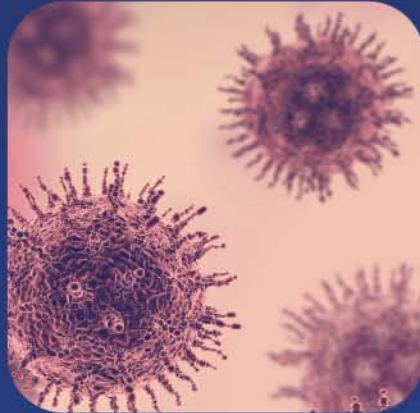


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Semarang, 22 November 2019



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PREFACE

Our gratitude extends the presence of God Almighty for His grace and grace, so that the International Conference on Handling Non-Communicable Diseases (ICHNCDs) can be carried out smoothly.

The 2019 International Conference On Handling Non-Communicable Diseases is expected to be able to develop academic nuances through the exchange of scientific information relating to executive policy, field experience practitioners, scientific results of academic scientist research and student learning. The other side is expected to also cultivate academic pulpit, literacy and scientific publications in an academic environment.

A big thank you to the Director of Poltekkes Kemenkes Semarang and its staff, resource persons, contributors papers, We hope that the results of the International Conference on Handling Non-Communicable Diseases 2019 can be input or reference in the development of science in the future. thanks.

Semarang, 23 November 2019



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Effectiveness of Boiled Water of Breadfruit Leaf (*Artocarpus Altilis*) on Reducing Cholesterol Levels In The Blood Of Mice (*Mus Musculus*)

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ABSTRACT

Background The high intake of foods containing high fat, especially saturated fat (saturated fatty acid), increases the risk of heart disease caused by increased levels of cholesterol, triglycerides, low density lipoprotein (LDL) and decreased high density lipoprotein (HDL). One type of plant that can reduce cholesterol is breadfruit plants because it contains saponins, polyphenols, hydroxyic acid, potassium, acetylcolin, tannin, riboflavin, phenol, and flavonoids which are proven to be anti-inflammatory, antiaterosclerosis and antiplatelet.

Purpose this study was to determine the effectiveness of boiled water of breadfruit leaf (*artocarpus altilis*) on reducing cholesterol levels in the blood of mice.

Method this study is an experimental laboratory study with the post test only control group design. Determination of the number of samples using the Federer formula obtained a sample of 24 mice. To make hypercolesterol mice, all rats were given lard and then given a variety of doses of boiled water of breadfruit leaf.

Results showed that boiled water of breadfruit leaf was able to reduce triglyceride cholesterol levels in mice with the most significant effect at a dose of 0.1713 ml ($p = 0.009$).

Keywords: *cholesterol levels, breadfruit leaves, mice*





Effects Of Laktoferin And Casein Bovine Milk On Signal On New Odontoblast Like Cell

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ABSTRACT

Background Regeneration effort of the pulp occurs when there is a damage on it. In this case, proliferation and differentiation of progenitor cell in the pulp will be become new odontoblast cell called new odontoblast like cell. Nestin is an intermediate filament in odontoblast cell and it reacts well during differentiation process from odontoblast both of normal and pathological condition. Recently, a therapy approaching molecular is being developed. Casein and lactoferin in the milk of a cow have protein content which is able to activate DNA cell and it speeds up cell growth.

Purpose The objective of the research is to know the influences of Casein and Lactoferin toward nestin cell's expression in the opened teeth pulp.

Method The research are an experiment using some white male Rats, Strain Spraque Dawley. It are 4 months old and 400 grams in weight. The writer divide into 4 treatment groups. They are Casein, Lactoferin, Casein-Lactoferin and Ca (OH)₂. The rats are treated using direct pulp capping treatment on the first molar both upper and lower jaw, which are drilled until the pulp is opened and observed on the 7th, 14th and 21st day. The observation are done by counting the amount of nestin cell. The data's mean (prosentase) on 7th day with casein was 36%, lactoferin 41%, casein – lactoferin 67% and Ca(OH)₂ 33%; on 14th day with casein was 61%, lactoferin 58%, casein – lactoferin 76% dan Ca(OH)₂ 50%; on 21st day with casein was 41%, lactoferin 45%, casein – lactoferin 61% dan Ca(OH)₂ 57%.

Results analysis of two ways ANAVA statistic proved significant differences ($p < 0.05$) on each period of observation and group, for the amount of nestin cell's expression. LSD test showed significant difference tendency ($p < 0.05$) on the group of Casein, Lactoferin, Casein-Lactoferin compared by control group.

Conclusion of the research is there are influences extract application casein and lactoferin toward nestin cell as differentiation sign to be a new odontoblast like cell on the opened teeth pulp.

Keywords : *damaged pulp, casein, lactoferin, new odontoblast like cell, nestin expression.*



A Randomized Controlled Trial of LR-3 Healing Pressure In Blood Pressure and Anxiety For Pregnant Hypertension

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ABSTRACT

Background: Hypertension pregnancy disorders is one of the causes of increased maternal, fetal and neonatal morbidity and mortality. Maternal Mortality Rate (MMR) in Indonesia is still quite high. One cause of maternal death is hypertension. Women with pregnant hypertension often experience a higher level of anxiety. LR-3 Healing pressure is a combination of self-healing and acupressure, where the massage process has two reactions, that was the strengthening (yang) reaction and the lowering reaction (yin). Massage at a certain point in acupressure therapy can stimulate nerve waves so that it can launch blood flow, relax spasms, and reduce blood pressure.

Objective: The aim of the study was to evaluate the effect of LR3 healing pressure on relieving anxiety and blood pressure of women with hypertension. To evaluate the effects of LR3 healing pressure on anxiety and blood pressure of women with hypertension .

Method : A randomized controlled trial with pretest-posttest control group design was used. In total, 40 participants from a Banyumas District were randomly assigned to the experimental group that received LR3 healing pressure for 2 weeks, and the control group that received only routine care of equal duration. Outcomes were assessed through blood pressure, and Anxiety before and after the LR3 healing pressure intervention.

Results: The average age of the experimental and control participants was 30.0 ± 19.3 years and 33.3 ± 19.7 years, respectively. The two groups were similar for demographics and antihypertensive drug use. There was a significant difference in systolic and diastolic BP between the experimental and control groups immediately and 15 and 30 min after LR3 healing pressure ($p < 0.05$). Indicated that the LR3 healing pressure group had significantly lower anxiety than the placebo group ($p \leq .0001$)

Conclusion: the effects of LR3 healing pressure appeared to be effective in reducing anxiety and blood pressure of women with pregnant hypertension. Healing pressure on the Taichong acupoint can lower blood pressure in pregnant hypertensive patients and may be included in the nursing care plan for pregnant hypertension. However, additional studies are needed to determine the optimal dosage, frequency, and long-term effects of this therapy.

Keywords : LR-3 healing pressure, anxiety, hypertension in pregnant women



In Vivo Test To Determine Fluoride Concentration On Mice Blood Plasma And Teeth After Consuming Bottled Water Fluoridation

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ABSTRACT

Aim: to investigate the effect on the mice blood and teeth after consumption of fluoride bottled water.

Methods: Quasi-experimental research design with two groups of pure and adding fluoride of bottled water were made in the form of a sealed glass and stored at room temperature and exposed to sunlight. The in vivo test performed on two groups of Wistar mice to measure fluoride levels in blood plasma after consuming bottled water on days 1, 15 and 30, while the levels of fluoride on tooth measurements performed on day 30. ANOVA test was conducted to determine levels of fluoride in blood plasma.

Results There are differences in fluoride concentration in the blood of mice and rats teeth after consumption of bottled water and non-NaF NaF bottled water consumption increases the concentration of fluoride in the blood and teeth.

Key words: fluoridated drinking water, fluoride concentration in blood plasma and teeth





Effect Of Narrative Therapy On Personal Character And Self-Identity Among Adolescents

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ABSTRACT

Background: The personality that characterizes adolescents is needed in achieving adaptive responses in life span. Positive self-identity as a basis for developing a healthy personality. Teenagers who have a low level of aggression, are not cruel, do not exploit others, and are relatively immune to stress. Narrative therapy as a form of psychotherapy is needed for adolescents to develop personal identities and personal characteristics.

Methods: This study used a quantitative research with a quasi-experimental method pre-post test with a control group with narrative therapeutic interventions.

Results: There were 134 teenage respondents who were nurse semester 1 student in the Florence Nightingale class and Abhimanyu class who met the inclusion and exclusion criteria and were willing to take part in the study. The respondents were divided randomly into a control group consisting of 67 teenagers with Abhimanyu class students and an intervention group consisting of 67 teenagers with Florence Nightingale class. Respondents in the control group were 56 women (84%) and 11 men (16%) and most were 19 years old (52%). As for the intervention group, female respondents were 53 (79%) and most were 19 years old (67%). There are significant different score of self-identity before the intervention was 85.57 to 132.58 in the intervention group and 146.27 to 136.86 in the control group, while the average personal character of the teenagers before the intervention was 149.27 to 208.63 in the intervention group and 218.73 to 206.83 in the control group.

Conclusion: There is a significant effect of narrative therapy on the level of self-identity. Narrative therapy is recommended as an intervention for adolescents to get through a transition period by strengthening personal character and self-identity.

Keywords: *narrative therapy, personal character, self-identity, adolescents.*





The Influence of Family-Centered Care *Plus* Spirituality on Diabetes Self-Management and Glycemic Control in Type 2 Diabetes Mellitus Patients

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ABSTRACT

Background - Nowadays, diabetes mellitus has become a global health problem. The incidence and prevalence of people with type 2 diabetes is significantly increased which is followed by high mortality rate due to the diabetes mellitus. Healthy behavior for patients with type 2 diabetes is an important factor that should be considered to achieve good glycemic control (A1C<7%). Glycemic control is strongly influenced by patient behavior in conducting diabetes self-management. Family empowerment using family-centered care *plus* spirituality is expected to enhance diabetes self-management intention and diabetes self-management behavior.

Objective: The research aimed to prove that family-centered care intervention plus spirituality will influence on diabetes self-management and HbA1c levels in type 2 DM patients through intention reconstruction.

Methods: This study was a quasy-experimental study using a control group conducted in 60 samples that were divided into three groups (Family centered-care plus spirituality group, group only with family centered-care, and control group without treatment). Diabetes self-management and HbA1c levels were measured in the three groups before intervention as a baseline data (pretest), and 3 months after intervention (posttest). Data was analyzed by using repeated ANOVA and path analysis.

Results: Family centered-care had no significant influence on diabetes self-management behavior ($p=0,311$), family-centered care interventions *plus* spirituality was significantly influenced on diabetes self-management behavior in the clients with type 2 diabetes ($p=0,008$), but not significantly influenced on glycemic control ($p=0,091$). Diabetes self-management intention had a significant influence on diabetes self-management behavior ($p<0.001$), as well as diabetes self-management behavior on the level of HbA1c ($p=0,020$).

Conclusion: Family-centered care plus spirituality have a significant influence on diabetes self-management behavior in type 2 diabetes melitus patients. Future studies should clearly examine other variabels that influence on intention, diabetes self-management, and glycemic control such as culture and values, Fe levels, physical activity, social supports, self-efficacy, diet, and Body Mass Index.

Keywords: *Family centered-care, type 2 DM, spirituality, diabetes self-management*



The Caries Risk Simulator toward Mother's Behavior The Elaboration of Irene's Donuts Program

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ABSTRACT

Background Dental caries among school children in Indonesia is still high (76.9%). To maintain their oral health, mothers should have big roles. Irene's Donut Program as Caries Risk Simulator is an interactive program that provides an understanding of children's caries risk and helps mothers implement preventive activities.

Purpose This study wanted to know the change in mothers' attitudes and practices after implementing this program on maintaining their children's oral health.

Method There were 40 pairs of students and mothers which divided into two groups. The intervention group was implemented the Irene's Donut Program, and the data were analyzed statistically.

Result showed that there was a significant difference in the control and intervention groups. In the intervention group, the mother's attitude and practice in good criteria increased 90% and 75%, but there was no change in control group.

Conclusion was that Irene's Donut Program as a Caries Risk Simulator influenced mother's attitude and practice.

Keywords: *Irene's Donut Program, Mother's Attitude and Practice*



The Effectiveness Of Progressive Muscle Relaxation And Mozart Music Therapy On Premenstrual Syndrome

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ABSTRACT

Background The number of premenstrual syndrome is high. Many symptoms that occur when premenstrual syndrome. These symptoms can be reduced with progressive muscle relaxation and Mozart music therapy.

Purpose of this study was to determine the effectiveness of progressive muscle relaxation and Mozart music therapy on premenstrual syndrome.

Method The design of this study was quasy experiment with nonequivalent control group. Eighty-nine students of Health Polytechnic Semarang was the population. The sample study of this research were 25 people in the progressive muscle relaxation group and 25 people in the Mozart music therapy group. The sampling technique was purposive sampling. The data were analyzed with univariate and bivariate analyzes (Wilcoxon and Mann Whitney).

Result of this study, there was a progressive muscle relaxation effect on the premenstrual syndrome (p value = 0.000 <0.05). There was a Mozart music therapy effect on premenstrual syndrome (p value = 0.000 <0.05). Data analyzed with Mann Whitney and obtained that no difference of effectiveness in progressive muscle relaxation and Mozart music therapy on premenstrual syndrome (p value = 0.195 > 0.05).

Conclusion Health Polytechnic Semarang are suggested to make reproductive health community program. Then implement Mozart music therapy and progressive muscle relaxation to students who experience premenstrual syndrome.

Keywords : *muscle relaxation, mozart music therapy, premenstrual syndrome*



DECREASED ANXIETY LEVELS, AND CORTISOL LEVELS THROUGH PRIMIGRAVIDA COPING SKILLS

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ABSTRACT

Anxiety are conditions that were commonly experienced by pregnant women which can be at risk of preterm birth, Prior studies of non-pregnant adults have shown that coping skills can reduce anxiety. The aim of this study was to look at the effect of coping skills on anxiety and cortisol levels in primigravida with hypertension. RCT Trial with pre and post were conducted for primigravida hypertension in Semarang City in 2018-2019. 76 PH, 38 EG and 38 CG. Data were the Zung Self-rating Experiment twice for 28 days. (SB) 190.5; (84.1); CG average (SB) 135.8 (53.4); delta EG -30.0; (76.2), CG 9.5; (66.9.) All the participants had an average pretest anxiety score: EG 36.5, CG 38.9. There was a posttest anxiety (aOR = 5.81, 95% CI = 1.50-22.45), and mean pretest cortisol levels. This study concluded that coping skills are non-pharmacological interventions that are effective in reducing anxiety and cortisol levels.

Keywords ; coping skills, anxiety, cortisol levels; primigravida; hypertension.



Family Experience In Supporting Exclusive Breastfeeding In Surabaya

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ABSTRACT

Introduction WHO recommends to exclusively breastfeed for the first six months old baby and continue until the age of two years. In Mulyorejo Subdistrict, Surabaya City, exclusive breastfeeding coverage was 70.34%.

aims This studies to explore family experiences in support of exclusive breastfeeding. This was a qualitative research with phenomenology study.

Method: Participants were families who had children at least one year old of age. Twelve participants were included and snowball sampling was applied. There were 8 themes to describe the research objective: 1) The characteristics of mothers and families, 2) Forms of family support, 3) Family functions, 4) Prevailing cultural forms, 5) Family stress, 6) Environment factors that affect exclusive breastfeeding, 7) Family experiences during exclusive breastfeeding.

Results: Experience Families in supporting exclusive breastfeeding included the form of real support, emotional support, and informational support. Family functions in health care include exclusive breastfeeding and complementary food. Stressor in the family included economic factors, infants, and mothers were considered. The prevailing custom also affected during exclusive breastfeeding. The environmental and economic factors affects the mother in giving exclusive breastfeeding.

Conclusion: This results can be used by health workers to perform interventions on the family to increase exclusive breastfeeding coverage.

Keywords: *exclusive breastfeeding, family experience, support*



Effectiveness Of Consumption *Sechium Edule* On Decreasing Blood Pressure In Elderly With Hypertension In Coastal Area

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ABSTRACT

Introduction: *Sechium edule* contains flavonoids and potassium to reducing small blood pressure in the elderly with hypertension. The serving of chayote for consumption can be juiced, steamed, and squeezed. However, no research proves from three serving is more effective in reducing the pressure of elderly hypertension.

aims of the study compared from three presentation which is more useful to make blood pressure decrease in elderly with hypertension in coastal area.

Method: This study used Pre-Experimental Design with the three-group pre-post-test design. Samples were 51 elderly obtained from purposive sampling. The independent variable was the consumption of *Sechium edule* with the various presentation. The dependent variable was the blood pressure. Based on analysis data used paired t-test with significance p-value ≤ 0.05 .

Results: The mean of blood pressure in the juiced group before intervention was 156.28 mmHg and after intervention 152.48 mmHg (decrease 3.8 mmHg). The mean of systolic pressure in steamed group before intervention was 154.46 mmHg and after intervention 151.43 mmHg (decrease 3.03 mmHg). The mean of systolic pressure in squeezed group before intervention 152.51 mmHg and after intervention 152.14 mmHg (decrease 0.37 mmHg).

Conclusion: The juiced *Sechium edule* was most effective to decrease blood pressure in elderly with hypertension. The nurse can promote to the elderly in the coastal area to make juiced *Sechium edule* as a non-pharmacological intervention for patient with Hypertension.

Keywords: *Sechium Edule*, Elderly, Hypertension,



Family Resilience Model Escalating The Family Ability To Prevent Recurrent Of Patient With Schizophrenia

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ABSTRACT

Introduction: The presence of schizophrenia patients in the family system causes a various situation of stress. Families need the ability to withstand stress and problems during the care through resilience.

Aims: This study to apply Family Resilience Model to improve the ability of the family to prevent recurrent of the patient with schizophrenia.

Method: Quasi-experiment design was employed 32 families who care schizophrenic patients at RSJ Menur Surabaya which obtained by simple random sampling. They were divided for 16 treatments and 16 controls. The independent variable was the family resilience model and the dependent variable was the family's ability to prevent recurrent of the patient with schizophrenia. Data were measured using questionnaires and analyzed using Wilcoxon Sign-Rank Test and Mann-Whitney Test ($\alpha < 0.05$).

Results: The family resilience model affects the ability of the family to prevent recurrent of the patient with schizophrenia ($p = 0.000$). Family resilience focuses on stimulating family enhancement through stress management so the family can rise up, growing stronger and doing better in giving support, accept the patient condition, provide the patient with activity and helping patient to solve the problem as the effort to prevent recurrent in the patient with schizophrenia.

Conclusion: Family resilience model was able to increase the family capability in taking care of schizophrenia patients, especially to prevent the patients recurrently

Keyword: Family resilience model escalating, Schizophrenia



Benefits Of Drug Fruit Dragon For Young Women In Increasing Hemoglobin Levels During Menstruation

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ABSTRACT

Introduction: For young women, anemia is quite dangerous, especially when they are married and pregnant. Anemia in adolescents contributes greatly to maternal mortality, premature births, and babies with low birth weight. While this blood deficiency disease cannot be treated directly. Adolescent girls with menstrual periods lasting more than 8 days and short menstrual cycles allow for more iron loss. The prevalence of anemia in Central Java in 2013 reached 57.1% (Central Java Health Office, 2014). In the city of Semarang the incidence of anemia in adolescents aged 10-19 years is 68.24% who suffer from anemia (Semarang City Health Service, 2011).

Purpose: this study was to determine the effectiveness between administration of dragon fruit juice and administration of Fe tablets during menstruation on hemoglobin levels in young women at Griya Bhakti Husada Board of Health, Polytechnic Ministry of Health, Semarang.

Method: This research Design is Quasi experimental, pre-post test with control group. The number of samples 49 people were selected by purposive sampling. Hemoglobin levels in the group giving the consumption of dragon fruit juice and the group giving Fe tablets data were analyzed by Wilcoxon test and between groups using the Independent T-test.

Results of this study indicate that there are significant differences in hemoglobin levels between the dragon fruit juice group and Fe tablets with a p -value = 0.004 (<0.05). The mean difference between the groups given dragon fruit juice and Fe tablets was 1,402 gram% so as to reduce the impact of anemia on adolescents.

Keywords: *Anemia, dragon fruit juice, Table Fe, Young Women*





The Correlation Between Masculinity And Smoking Behavior Among Adolescent In Surabaya

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ABSTRACT

Introduction: Smoking behavior is one of risky health behaviors adopted by adolescents in Indonesia. The behavior was commonly recognized as a masculine among male adolescents. The label of man identity called masculinity influences this condition. This study investigated the association of masculinity as ideology, masculinity norms, and gender role conflict and its correlation with smoking behavior in male adolescents who lived in Surabaya.

Methods: This study used a descriptive correlative method and involved 314 adolescent male aged 15-18 years old in Surabaya as participants. We employed univariate analysis to identify predictors, including the ideology of masculinity (MNRI-SF), masculinity norms (CMNI-46), and gender role conflict (GRCS-I); and a dependent variable: male adolescents' smoking behavior. The data were collected electronically, following waived written consents. Bivariate analyses were conducted to investigate each of predictors questionnaire and dependent variable using chi-square with the level of significance of $p < 0.05$.

Results: Adolescents as participants in this study have low levels of ideological masculinity, high norms of masculinity and gender role conflict in the moderate category. The results indicated that ideology masculinity, masculinity norms and gender role conflicts are positively associated with smoking behavior ($p=0,001$, $p=0,029$, and $p=0,001$ respectively).

Conclusion: The findings of this study suggested that smoking behavior was constructed as an element to the idea of masculinity in the perspective of male adolescents in Surabaya, despite the available warning to prevent the circulation of tobacco products to adolescents. Thus, this study recommends the need for reinvention around tobacco-products circulation as not to involve the youth.

Keywords : *Adolescent, Masculinity, Gender Role Conflict, Smoking Behavior*



Mindfulness Based Stress Reduction Interventions and Experiential Learning Method in Supporting Coping Mechanism and Resilience of Family Caregivers of Patients with Cancer: A Systematic Review

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ABSTRACT

Background: Cancer has an impact not only on sufferers but also on families. There are psychological factors related to cancer that have specific properties because they can cause stress, anxiety, fear of loss, and other psychological reactions such as rejection, anger, depression in the family so they need to receive help so that their psychological condition is well maintained. Awareness-based interventions, which have been shown to improve cognitive behavioral psychological functions and experiential learning methods that are able to shape cognitive knowledge with learning that reflects the experience they have.

aims This review to conduct a systematic literature review of the study of mindfulness interventions and experiential learning methods as supportive care for family caregivers of patients with cancer.

Method: Review is carried out by following the PRISMA alloy. We conducted a search of three electronic databases (Scopus, PubMed and Cochrane Database of Systematic Reviews) for studies published between 2013 and 2018 with relevant keywords.

Results: A total of 15 articles were identified through systematic searches and six inclusion criteria from 3,223 articles found. Studies related to MBSR show that the value ($\beta = -0.32$, $\rho < 0.01$, $r^2 = 0.11$). These results state that the more mindful an individual is, the more harmless the assessment of stress, the results show that mindful individuals will choose stress coping approach strategies rather than stress avoidant coping strategies and experiential learning studies that show the influence of patient empowerment based on experiential learning towards prevention measures for acute complications.

Conclusion: MBSR and experiential learning methods are methods that both are cognitive therapies that use the same understanding of experience as media.

Keywords: *Mindfulness Based Stress Reduction, experiential learning, coping mechanism, resilience, and cancer.*



Effectiveness Of Acumoxa Therapy On Reducing Blood Pressure In Gestational Hypertension

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ABSTRACT

Background. Gestational hypertension (GH) causes 10% of maternal deaths worldwide with a prevalence of 5-10% in pregnant women and will experience a 25% increase in pregnant women with a previous history of hypertension. GH occurs due to reduced blood perfusion to the organs due to vasospasm and endothelial activity characterized by increased blood pressure and urine protein. Lowering blood pressure to the normal range is one of the keys to overcoming maternal deaths from GH. So far, the administration of anti-hypertensive drugs that are carried out to stabilize maternal blood pressure has long-term effects that need to be reconsidered. One of the complementary alternative therapies that can reduce blood pressure by giving acumoxa therapy is a combination of acupressure and moxibustion techniques.

Objective. To evaluate the effects of acumoxa on blood pressure in patients with GH.

Methods. A randomized controlled trial with pre and post-test was used. In total, 34 participants with GH from three community health center in Brebes Regency were randomly assigned to the experimental group that received acumoxa was applied to the governor vessel 20, large intestine 11, heart 7 and kidney 3 acupoint was applied for 5 min through 4 weeks (n=17) and the control group that received acupressure was applied to the same acupoint except kidney 3 didn't used (n=17). Sampling in this study uses a saturated sample technique. Outcomes were assessed through blood pressure measurements before and after the acumoxa intervention. Then the independent t-test ($p > 0.05$) was performed.

Results. After the acumoxa intervention, a significant difference existed between the two groups in blood pressure ($p > 0,05$). The mean decrease in blood pressure in the akumoksa group was $-23,41 \pm 9,28$ greater than control group $-16,86 \pm 7,02$.

Conclusion. Akumoksa therapy can be recommended as alternative support in reducing blood pressure in patients with gestational hypertension.

Keywords : *acupressure, moksibustion, gestasional hypertension*



The Effect Of Probiotic On Reducing Duration Of Children Acute Diarrhea In Developing Countries

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ABSTRACT

Background: In developing countries, children under-five experience an average of three episodes of diarrhea each year. Acute diarrhea is most often diarrhea experienced by children under-five. Probiotics are one alternative adjunct therapy to reduce the duration of diarrhea. This study aimed to determine effectiveness of probiotic on reducing duration of children acute diarrhea in developing countries.

Subjects and Methods: This research is a meta-analysis conducted using the systematic PRISMA guidelines. The process of searching for articles was carried out between 2009 and 2019 using a database search engine consisting of PubMed, ScienceDirect, and Scopus. Based on database search, obtained four articles that meet the criteria of RCT and the research subjects are children under-five. The study involved 954 children who were divided into groups of probiotics (n = 477) and placebo (n = 477). Analysis was performed with RevMan 5.3.

Results: There was heterogeneity between experiments ($I^2 = 72\%$; $p < 0.05$). The overall analysis showed that probiotics reduced the duration of acute diarrhea in children under-five with a pooled estimate of 0.30 (Mean Difference: -0.30; 95% CI -0.56 to -0.03; $p < 0.05$).

Conclusion: Probiotics reduce the duration of acute diarrhea in children under-five faster than placebo in developing countries.

Keywords: acute diarrhea, children under-five, meta-analysis, probiotics.





The Effect Of A Combination Of Red Ginger And Tamarind Drinks On Primary Dysminorea

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ABSTRACT

Introduction: Dysminorrhea is a menstruation pain that diturb activities and productivity of women. The purpose of research is determine the effect of combination red ginger and tamarind drinks to primary dysminorea in Widya Gama High School Malang 2017.

Method of this study was pre experiment approach with accidental sampling. This research was conducted at Widya Gama Senior High School Malang 2017, the population of this study were 106 female students at Widya Gama High School. The sample of this study was 11 people who were given a treatment of giving a combination of red ginger and tamarind drinks. The instrument used was the observation sheet and NRS pain scale, data analysis using the Wilcoxon Signed Rank test.

Results of this study indicate that there is an effect of giving a combination of red ginger and tamarind drinks to primary dysminorea in Widya Gama High School students with $p\text{-value} = 0,000 < \alpha = 0.05$, with this it is expected that the combination of red ginger and Java tamarind drinks can help students in terms of reducing the pain of disminorea experienced by students when menstruation comes so students can take lessons in class comfortably and their concentration is not disturbed.

Keyword: *Dysminorrhea, Red Ginger and Tamarind Drinks*



Use Of Audiovisual And Visual Education Media In Increasing Elementary School Children's Knowledge Dental Health

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ABSTRACT

Purpose of this study was to determine the effectiveness of counseling with visual media compared to audiovisual media on the level of dental health knowledge of elementary school children.

Method: The design of this study was pretest and posttest experiment design. The sample of this study were children in grade 3 of Ngesrep 1 Elementary School and Tinjomoyo I Elementary School in Ngesrep, Banyumanik Subdistrict, 132 children by random sampling. Then the Kolmogorov-Smirnov test was carried out with the results of $p > 0.05$. And to determine the effectiveness of the four counseling media in 4 groups, the Kruskal Wallis test was used.

Results: There is a difference in the level of knowledge between counseling with interactive software (audiovisual) and leaflets (visual) with $p = 0.00$. There is no difference in the level of knowledge of dental health between the extension of the audio film media (audiovisual) and comics (visual) with $p = 0.54$.

Concludes: the most effective animation film extension media is in changing the level of knowledge of dental health in elementary school children. Audiovisual media is more effective in improving dental health knowledge than visual media.

Keywords: *Visual And Audiovisual Education Of Media, Level Of Dental Health Knowledge*



The Individuals Knowledge at Risk to Suffered of Non Communicable Disease

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ABSTRACT

Introduction: Non-communicable diseases such as Cancer, Heart disease, Stroke, and Diabetes Mellitus can occur at the age of 15-45 years. Efforts to prevent non-communicable diseases in Indonesia through increasing community knowledge about CERDIK (*Cek kesehatan berkala / periodical health checks, Enyahkan rokok/eliminate smoking, Rajin aktivitas fisik/routinely physical activity, Diet sehat seimbang/balanced healthy diet, Istirahat cukup/adequate rest, and Kelola stress/manage stress*).

Purpose: The study to describes the knowledge of productive age individuals who are at risk of suffered to non-communicable diseases about CERDIK.

Method: The study design was cross-sectional. Subjects were 213 individuals who visited fast food and beverage restaurants in Blitar City, selected by simple random sampling. Data collection used the CERDIK knowledge questionnaire in March - August 2019. Data analysis used descriptive.

Results: Knowledge as a process of individual cognition that was medium and good categorized as much as 74%.

Conclusion: It is recommended that CERDIK's socialization be carried out continuously and everywhere.

Keyword: *The Individuals Knowledge, Non-Communicable Disease*



Efforts to Overcome Stunting Towards West Lombok Regency Stunting-Free in 2024: One Health Perspective

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Background. The Demographic surplus in West Lombok would not be profitable entirely while the stunting rate is constantly high. NTB Province experienced a dramatic increase in the number of stunting under five in the 2016-2017 period from 29.9% to 37.20%. West Lombok Regency has a tendency to reduce the stunting rate from almost 50% to its half in 2019. West Lombok itself has three priority villages, out of 100 national priority villages, for stunting handling. Innovations to combat the emerging NCD epidemic must put in what has been successful in overcoming infectious diseases, the One Health approach.

Methods. The “One Health” concept, which promotes an interdisciplinary and intersectoral approach, must therefore engage at different levels of health governance, from a global level right down to a local level, by encouraging participative approaches that bring together communities, scientific experts, administrations, and other key players (NGOs, industry, legal experts, etc.).

Results. Stunting management strategies consist of specific and sensitive handling strategies. More than ten sectors were identified to be involved actively in tackling stunting in both strategies. Stunting countermeasures and budget tagging policies are identified using one health perspective, but hadn't optimal yet in its translation. The success of this One Health concept now requires breaking down the interdisciplinary barriers that still separate human health, government agencies at all levels, religious departments, port health offices, education offices, and other identified sectors, still working at their respective levels.

Conclusion. Coordination and synergy between sectors and programs on stunting prevention remains a challenge

Keywords: *Stunting, One Health, West Lombok*



Correlation Spiritual Response, Perceived Stress, Depression Syndrome Postpartum, Cortisol and IgG levels on Primiparous Women

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ABSTRACT

Background: There were no studies of Correlation Spiritual Response, Perceived Stress, Postpartum Depression Syndrome, Cortisol and IgG levels on Primiparous Women.

Objectives: to analyzed the pathway to spiritual responses, perceived stress, Syndrome depression Postpartum, Cortisol and IgG levels on primiparous women.

Method: Quasi Experimental study with post-test control group design. A total of 47 women completed this study. Statistical test using Path analysis.

Results: The results of path analysis show sincere patience (0.315) which is correlated with gratitude (0.527) and wisdom of taking wisdom (0.628). Perceived stress correlated with depression syndrome (0.581) and cortisol correlated with IgG (0.20).

Conclusion: Routine midwifery care plus psychoeducation *zikir* through increased spiritual responsiveness and skill in taking wisdom so that changing distress to eustress is manifested by a decrease in cortisol levels and an increase in IgG levels, so as to prevent postpartum depression syndrome.

Keywords: *Cortisol, Depression Syndrome, IgG, Perceived Stress, Primiparous, Spiritual Response.*



Effect Of Fast Food Consumption With The Event Of Obesity In Adolescents In Indramayu

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ABSTRACT

Introduction: Fast food has an unbalanced nutritional content. Most contains high calories, but very low fiber. Fast food is a major factor influencing obesity. Based on the 2013 Riskesdas obesity prevalence of 28.9% while the 2018 Riskesdas data results recognized that the obesity prevalence has reached 52.8%. Based on these data an estimated 1.36%.

Aims: The purpose of this research is to study the effects of fast food consumption with the incidence of obesity in adolescents.

Method: This research method uses analytical research design using Cross Sectional. The sampling technique uses accidental sampling with a total of 94 samples calculated using the Slovin formula. This research instrument used a questionnaire, a research place at SMK 1 Indramayu in 2019. The analysis used was univariate and bivariate analysis conducted by Chi-Square Test.

Results: The results of this study indicate the fact that there is a difference between consumption of fast food and the incidence of obesity with a value of $P = 0,000$. The next researcher needs family assistance, and the school environment for fast food needs.

Keyword : obesity, fast food, behavior, non-communicable diseases





Impact Of Mangosteen Rind On Tnf-A Level Of Diabetic Wound Healing

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ABSTRACT

Background: Diabetic wound healing process has many obstacles including inflammatory response. A strategy accelerates diabetic wound healing by controlling level of pro-inflammatory cytokine (TNF- α). Mangosteen rind as anti inflammatory potentially accelerates diabetic wound healing. There is lack of study about mangosteen rind towards TNF- α level of diabetic wound healing.

Objective: To prove impact of mangosteen rind extract (MRE) topically on TNF- α level of diabetic-type 1 wound healing post tooth extraction in rat.

Method: Experiment with randomized pre-post test with control group design. Sample was 40 male Wistar rats aged 8-10 weeks, weight 120-160 g, divided into 4 groups : diabetic wound treated MRE; diabetic wound control; non-diabetic wound treated MRE and non-diabetic wound control. Preparation of type 1 diabetic rats using induction of Streptozotocin (STZ) 1x with dose of 50 mg/kg intraperitoneal. Rat with diabetes when blood glucose at fasting time (hyperglycemia) \geq 250 mg/dl. Diabetic wound was made by extraction of right upper incisor, as well as in non-diabetic wound. Monitoring of diabetic wound healing was by TNF- α level in inflammatory phase. Data was analyzed by General Linear Model test.

Result: TNF- α level of diabetic wound treated MRE was only 50% of control group and there was a significant difference between diabetic wound group ($p < 0.05$), TNF- α level decreased 40% in inflammatory phase.

Conclusion: Mangosteen rind extract topically reduced and controlled TNF- α level in inflammatory phase and accelerated diabetic-type 1 wound healing post tooth extraction in rat.

Keywords: Male Wistar Rat; Mangosteen Rind; Diabetic Wound Healing; TNF- α .



Exercise And Physical Activity Counseling Needs Among Cardiac Rehabilitation Patients In Indonesia

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ABSTRACT

Background: The prevention of recurrent cardiac events through cardiac rehabilitation (CR) is critical issue. Nevertheless, existing program for cardiac rehabilitation patients was not performed optimally. Health-care professionals more focused on medical treatment, and less concern on prevention and rehabilitation. The needs of nursing care for cardiac rehabilitation patients have been investigated previously. Yet, information related the cardiac rehabilitation patients' needs on exercise and physical activities counseling are very limited.

Purpose: To investigate exercise and physical activity counseling needs among cardiac rehabilitation patients and its relationships.

Methods: This was quantitative approach with descriptive correlational. Convenience sampling was used for this study. The participants included 38 cardiac rehabilitation patients at the Cardiac Rehabilitation Unit. Data collection employed from questionnaires that were filled in by the respondents using a retrospective technique at the end of CR program. Data were analyzed using descriptive and correlational statistics.

Findings: The study signified that CR patients required exercise (92.1%) and physical activities counseling from nurses (86.9%). The finding also indicated that there is a statistically positive relationship between exercise and physical activities counseling among CR patients ($r = 0.485$, $p < 0.01$).

Conclusion and Recommendations: Most of the CR patients required exercise and physical activities counseling from nurses during performing CR program. Patients' needs on exercise and physical activity counseling among CR patients are correlated positively. Therefore, the information regarding exercise and physical activity for CR patients should be provided simultaneously to complement each other.

Keywords: *Cardiac Rehabilitation, Exercise, Patients' Needs, Physical Activity Counseling*



Effect of Cervical Cancer Education and Provider Recommendation for Screening: A Systematic Review

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ABSTRACT

Background The incidence of cervical cancer in the world is still high as well as in Indonesia. This cancer affected women's physically, psychologically, socially, sexually functionally, and spiritually.

Purpose of this review literature was to determine the effect of cervical cancer education and to identify the effects of provider recommendations for screening to eligible women, as a basis for developing new interventions for nurses.

Method Searching for articles was done through four English databases namely CINAHL, Science Direct, Pubmed, and Proquest to identify articles published between 2009-2019. Of the 2,665 filtered research reports, 14 articles were found that met the requirements.

Results There were seven randomized control trials, six quasi-experiment, and one mix method involved in the analysis step. The interventions were cervical cancer screening methods (1 article), interventions to increase participation in cervical cancer screening (10 articles), postoperative cervical cancer nursing interventions (1 articles), and interventions handling symptoms or problems due to cervical cancer (2 articles).

Conclusion Our findings supported the implementation of cervical cancer educational interventions to increase women's participation in cervical cancer screening programs.

Recommendation Nurses and midwifery have the opportunity to innovate interventions related to nursing, through research in order to improve the quality of nursing care for patients.

Keywords: *Cervical Cancer Education, Effect, Screening*





The Effectiveness of a School-Based Education Program on Oral Health In Bandung Resident: A Pilot Study

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ABSTRACT

Background-The lack of an organized school dental health policy in Indonesia requires an affordable, easily accessible, and sustainable strategy. Provision of dental and oral health knowledge delivers by a little doctor at the school level can help the implementation of the program that school age is the time of peer groups. The school age is in which children begin to learn basic oral hygiene practices and are most vulnerable to dental caries.

Purpose-This study was conducted to assess the effect of little doctor training on the knowledge, attitudes and skills of little doctors, as well as on the skills and patterns of brushing teeth in Bandung Regency, Indonesia.

Method-This research used quasi experimental design with pretest and posttest. A total of 12 little doctors and 291 school children in grades 4-6 elementary school from four government schools were included in this study. The instrument consisted of a knowledge and attitude questionnaire, an observation sheet, and a checklist sheet. Evaluation of tooth brushing patterns at school was done every month for 3 months. Data analysis using paired t-test. Data before and after training were compared and it was found that there was a significant improvement in the knowledge, attitudes, practices of the little doctors and students ($p = 0.005$). Skills and practice patterns of brushing teeth of school children increased significantly after the program ($p = 0.005$). **Results** of this study indicate that school-based oral health education methods that involve little doctors are effective for improving oral hygiene in elementary school children.

Keyword: The Effectiveness, School-Based Education Program, Oral Health





Description Of Safety At Health Labor At Tugurejo Hospital

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ABSTRACT

Background The safety attitudes of health workers in hospitals are still minimal in evaluation, while the attitudes affect the number of workplace accidents.

Objective The purpose of this study is to describe the attitudes of health workers on occupational safety at Rumah Sakit Tugurejo Semarang.

Method This type of study using quantitative descriptive. Sampling technique using Proportional Random Sampling with total respondent are 277 Health Workers. Data from this study taken using the SAQ (Safety Attitude Questionnaires) and were analyzed using descriptive statistics.

Results showed that health workers who had good safety attitudes were 48.7% and poor safety attitudes were 51.3%. The majority of health workers in Tugurejo Hospital have poor safety attitudes. Poor Safety attitudes are in the Working Condition dimension of 59.9% and the good ones in the Perception Of Management dimension of 63.2%. Based on the results of this study, it was suggested for health workers to be able improve their safety attitudes by monitoring the attitude of safety, this could be started from each profession, and supervision at the Hospital level.

Keyword: *Health Workers, Safety Attitude, Hospital*





Pre Eminent Basic Research Of Higher Education Institute
The Design Of Mobile-Based Me-Co Care Telenursing Applications For
Providing The Community Soul Nursing Services

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ABSTRACT

Background, Mental disorders are still one of the significant health problems in the world. One of the factors instigating the increasing number of mental disorders is the high rate of recurrence. In Indonesia, almost 80% of schizophrenia patients experience relapse repeatedly.

Objective, this research aimed at developing and implementing a draft test of Me-Co Care Telenursing Applications in a limited community.

Methods, this research was carried out by involving 16 respondents representing each application domain, in Kelurahan Cempaka Putih Timur area, Jakarta Pusat (Cempaka Putih Timur Village Administrative Unit, Central Jakarta) for three weeks of use. The effectiveness evaluation of the Me-Co Care Applications was carried out using an application use questionnaire developed by the research team.

Results, the Me-Co Care Applications, which were developed by using the *Database Management System* or more often abbreviated as DBMS was a software. There were four main domains in the applications, viz. patient, family, mental health cadre, and health worker. Every domain consisted of menus that can be run through mobile phones. The results of using the applications for three weeks showed that there were 89% respondents who Agreed and 11% respondents who Disagreed to the implementation and utilization of Me-Co Care applications.

Conclusions, the four application domains that have been developed were able to accommodate the needs of the community and most patients since the families, cadres and nurses were able to operate the Me-Co Care applications properly.

Keywords: *Mobile Me-Co Care Applications, Me-Co Care, Mental Disorder*





The Effect Of Emergency Of Cadads On Stigma And Early Detection Skills On Dssj Soul Health Care In Bandongan Kec. Bandongan Kab. Magelang

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Magelang Nursing Study Program; Poltekkes Kemenkes Semarang

ABSTRACT

Background The Desa Siaga Sehat Jiwa that was formed by the Community Health Center is a form of community-based mental health services. This has become one of the solutions to implement mental health services that can be easily reached by the community because of close access, reducing stigma, and reducing costs.

Purpose. This study was to determine the effect of cadre empowerment on cadre's ability in early detection and mental disorder stigma perceived by mental health cadres in Desa Siaga Sehat Jiwa in Bandongan District Health Center, Magelang District.

Method. This research is a "Quasi Experiment" research where respondents will be subjected to pre-test and post-test. The purposive sampling technique applied in this study was 80 cadres with 40 treatment groups for 5 sessions and 40 control groups. The t-test was used to determine the effect of cadre empowerment on cadre's ability in early detection and mental disorder stigma perceived by mental health cadres in Desa Siaga Sehat Jiwa in Bandongan District Health Center, Magelang District.

Results : There was an influence of cadre empowerment on mental disorder stigma perceived by mental health cadres in DSSJ. There is no influence of cadre empowerment on the ability of mental health cadres in detection. This is evidenced by the value of $p < 0.810$, which means that cadre training is not significant to be done in improving cadre's ability in early detection of DSSJ.

Conclusion : There is an influence of cadre empowerment program in changing negative perception of stigma associated with mental disorders. There is no significant effect between community empowerment programs in improving early detection capabilities, but there is a change in the score between before and after treatment.

Keywords : *Cadre Empowerment, Stigma, Early Detection*





The Impact of *Gemas* Application Toward Knowledge And Attitude Preventing Stunting Of Teenegers At Sma Negeri 1 Sokaraja

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ABSTACT

Background: Anemia, overweight, and underweight are problems that are often occur for teenegers. Teenegers as a milleneal generation should be given the access for education of health and balance nutrition. One of way for education can be given by digital application (Prasasti, 2018).

Purpose: This study is aimed to know the impact of *gemas* application toward knowledge and attitute for preventing stunting of teenegers.


Method: this study is an exsprimental study by static pretest and posttest with control group design. The study was conducted for 3 months. Population of study were 357 students at SMA Negeri 1 Sokaraja in academic year of 2019. The number of samples were 100 respondents that were choosen by simple random sampling tecnic.

Result: There is a siqnificant difference of knowledge before and after giving gemas application which is intervention ($p=0.00$) and control group ($p=0.01$). There is a siqnificant difference of attitude before and after giving gemas application for intervention group ($p=0.00$). There is no a siqnificant difference of attitude before and after giving gemas application for control group ($p=0.42$). *Gemas* application is significantly impact of knowledge and attitude of teenegers toward the preventing of stunting which are $p=0.00$ and $p=0.00$.

Conclusion: *Gemas* application can impact significantly of knowledge and attitute of teenegers in preventing of stunting at SMA Negeri 1 Sokaraja .

Keywords: *Gemas application, Stunting, Knowledge, Attitude*





The Impact of Diabetes Mellitus Gym for Controlling The Level Of Blood Glucose (Hba1c)

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ABSTRACT

Background: Diabetes Mellitus (DM) is a chronic progressive disease. Based on Health Department of Republic Indonesia (2016) was reported that DM prevalence increase from 1, 1% (2007) to 2, 1% (2013). There are four aspects for controlling DM such as education arrange of nutrition, practice, and drug compliance (Health Department of Republic Indonesia, 2016). This controlling is aim to increase the quality of life for DM patients.

Purpose: This study is aimed to know the impact of DM gym for controlling the level of blood glucose (HbA1c).

Method: Type of this study is an experimental study by static pre test and post test with control groups design. Respondents of study were DM patients in area of Puskesmas II Sokaraja. The numbers of samples were 26 respondents. The measurement was done by using questioner and blood glucose check (HbA1c) for pre and post test. The analysis was used t test.

Results : Majority of respondents were female, almost all of respondents educational were basic education (SD and SMP), majority of respondents were 35 - 60 years old, majority of respondents were unemployed, and majority of respondents suffering from DM were in middle duration (1-5 years). DM gym can decrease the level of HbA1c for 1, 79 mg/dl ($p=0, 00$) from intervention group and 0, 63 mg/dl ($p=0, 00$) from from control group. The analysis of t test show that DM gym can control the level of blood glucose (HbA1c) significantly ($p=0, 00$).

Conclusion: DM gym can control the level of blood glucose (HbA1c). Health staffs need to increase motivation of public in doing DM gym regularly.

Key words: DM gym, HbA1c



Knowledge and Smoking Habits Differences: Comparative Study Among Junior High Students In One Of The Districts And Cities In Jambi

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ABSTRACT

Background The prevalence of smoking aged 10-18 years in Indonesia has increased in the last ten years. Many studies on smoking habits have been done before, but the differences in the knowledge and smoking habits among junior high students in the districts and cities in Jambi not yet known.

Method 85 students in one junior high school in the district, and 82 students in one junior high school in Jambi city were interviewed and asked to fill in their self administered questionnaires. **Results** showed that the average score of junior high students' knowledge in jambi city was higher than students in the district. On the contrary the smoking habits score of junior high students in the district was higher than the smoking habits score of students in Jambi city. There were significant differences on knowledge and smoking habits among junior high students in the districts and cities in Jambi. Health promotion about smoking harm to junior high school students in the district need to be improved, with methods and media that are of interest to teenage students.

Keywords: *Knowledge, Smoking Habits,*



Clinical Learning Through Preceptorship And Mentorship Training In A Teaching Hospital

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ABSTRACT

Background: Preceptors are Clinical Instructors (CIs) who are given apparent authority and responsibility following their role in designing, managing, and evaluating clinical learning for students. Preceptors are nurses who teach, advise, inspire, and function as role models, as well as support the growth and development of nursing students. The Preceptorship guidance model is a system and process of gradually delegating authority from the preceptors to students. Preceptorship Training Method is a planned effort to facilitate learning about tasks related to employees' knowledge, skills, and behavior.

Aim: The purpose of this Community Service is to prepare and provide the provision of clinical guidance in applying active clinical learning.

Method: This Community Service uses a direct learning method through Preceptorship Learning Method Training, with pre and post-test, lecture, simulation, roleplay, training evaluation, and clinical guidance assistance for the preceptorship method.

Result: Participants in the preceptor learning method were 56.5% female, and as many as 52.2% had previously taken clinical advisory training. The knowledge of trainees before the training was 27.74 with SD 12,638, and after training, it was 52.74 with an increase of SD 20,324. There was a significant difference in the knowledge of trainees before and after training with a value of $p = 0,000$ (p -value <0.05). Training participants or as many as 31 people (77.5%) stated that the training theme was excellent, as many as 23 people (57.5%) stated that the timeliness was excellent, half of the trainees or as many as 23 people (53.5%) stated that the organizer's services were excellent

Conclusion: Preceptorship Learning Method Training increases Clinical Instructor knowledge and has a significant difference in knowledge before and after training.

Keywords: *Preceptorship Method, Training, Clinical Learning*



The Effect Of Provision Of Star Fruit Juice On The Change Of Blood Pressure Of Hypertension Patients In Belimbing Public Health Service Area Of Padang

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ABSTRACT

Background Hypertension is called the silent disease because there is no signs or symptoms that can be seen from the outside. The prevalence of hypertension in Indonesia continues to increase. Fruit juice therapy has long been used to help cure of various diseases including hypertension.

Objective The aim of this reaserch is to know effect of giving starfruit juice on changes in blood pressure of hypertension patients in the working area of Belimbing Public Health Center in Padang in 2018. T

Method the research design is Quasi experiment, with one group pretest and posttest design, to see the effect before the intervention and after the intervention. The study was conducted in the Belimbing Public Health Service in Padang City from May to December 2018. The data collection time was 1 week in the July 2018. Samples were 20 hypertension patients (10 intervention groups and 10 control groups).

Result The research result show that average systolic blood pressure in hypertensive patients in the intervention group before being given star fruit juice is 138,000 with a standard deviation of 6.325. After giving star fruit juice, the average systolic blood pressure was obtained 126.00 with a standard deviation of 5.164. The difference between before and after giving star fruit juice is 12,000 with a standard deviation of 7,888. Statistical test results obtained p value = 0.001, it can be concluded that there is a significant difference between systolic blood pressure before and after starfruit juice administration. The mean systolic blood pressure in hypertensive patients in the intervention group was 126 while the standard deviation was 5.164. For the control group the mean is 142 and the standard deviation is 9,189. Statistical test results obtained p value = 0,000, it can be concluded that there is a significant difference between systolic blood pressure after starfruit juice administration. The average diastolic blood pressure in hypertensive patients in the intervention group is 85 while the standard deviation is 5.270. For the control group the mean is 92 and the standard deviation is 9,189. Statistical test results obtained p value = 0.051, it can be concluded that there is no significant difference between diastole blood pressure after starfruit juice administration.

Keywords: *Star Fruit Juice, Systolic, Diastolic, Hypertension*



Description Of Leprosy Patients Self-Concept In Indramayu Regency

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ABSTRACT

Background Leprosy is an infectious disease that is a health problem both in Indonesia and the world. Indonesia is a country endemic to leprosy and is one of the countries with the highest cases of leprosy in the world. Leprosy causes problems for sufferers both physically, psychologically and socially. Late handling of leprosy will result in disability. The existence of the disability will result in decreased productivity. In addition to physical problems, social problems caused by leprosy in the community are still very large, including sufferers who have disabilities experience isolation by the community. The existence of such a isolation results in sufferers being reluctant to take medication that will have an impact on the transmission of the disease to their families and people closest to them. This will affect the patient's self-concept.

Objective The purpose of this study was to determine the self-concept of leprosy patients in Indramayu Regency.

Method This study used a quantitative design with a descriptive approach. The sample in this study was 84 leprosy patients.

Results showed that 50% of leprosy patients had negative self-identities, 53.6% had negative body image, 63.1% had negative role models, 53.6% had negative self-ideals, and 51.2% had negative self-esteem. As many as 56% of people affected by leprosy in Indramayu Regency have a negative self-concept.

Keywords: *Self-concept, Leprosy Patient*





Exercise And Physical Activity Counseling Needs Among Cardiac Rehabilitation Patients In Indonesia

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ABSTRACT

Background: The prevention of recurrent cardiac events through cardiac rehabilitation (CR) is critical issue. Nevertheless, existing program for cardiac rehabilitation patients was not performed optimally. Health-care professionals more focused on medical treatment, and less concern on prevention and rehabilitation. The needs of nursing care for cardiac rehabilitation patients have been investigated previously. Yet, information related the cardiac rehabilitation patients' needs on exercise and physical activities counseling are very limited.

Purpose: To investigate exercise and physical activity counseling needs among cardiac rehabilitation patients and its relationships.

Methods: This was quantitative approach with descriptive correlational. Convenience sampling was used for this study. The participants included 38 cardiac rehabilitation patients at the Cardiac Rehabilitation Unit. Data collection employed from questionnaires that were filled in by the respondents using a retrospective technique at the end of CR program. Data were analyzed using descriptive and correlational statistics.

Findings: The study signified that CR patients required exercise (92.1%) and physical activities counseling from nurses (86.9%). The finding also indicated that there is a statistically positive relationship between exercise and physical activities counseling among CR patients ($r = 0.485$, $p < 0.01$).

Conclusion and Recommendations: Most of the CR patients required exercise and physical activities counseling from nurses during performing CR program. Patients' needs on exercise and physical activity counseling among CR patients are correlated positively. Therefore, the information regarding exercise and physical activity for CR patients should be provided simultaneously to complement each other.

Keywords: Cardiac Rehabilitation, Exercise, Patients' Needs, Physical Activity Counseling



Effectiveness of Acumoxa Therapy on Reducing Blood Pressure in Gestational Hypertension

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ABSTRACT

Background. One of the complementary alternative therapies that can reduce blood pressure by giving acumoxa therapy is a combination of acupressure and moxibustion techniques. The novelty in this research is a modified therapeutic procedure.

Objective. To evaluate the effects of acumoxa on blood pressure in patients with GH.

Methods. A randomized controlled trial with pre and post-test was used. In total, 34 participants with GH from three community health center in Brebes Regency were randomly assigned to the experimental group that received acumoxa was applied to the governor vessel 20, large intestine 11, heart 7 and kidney 3 acupoint was applied for 5 min through 4 weeks (n=17) and the control group that received acupressure was applied to the same acupoint except kidney 3 didn't used (n=17). Sampling in this study uses a saturated sample technique. Outcomes were assessed through blood pressure measurements before and after the acumoxa intervention. Then the independent t-test ($p > 0.05$) was performed.

Results. After the acumoxa intervention, a significant difference existed between the two groups in blood pressure ($p > 0,05$). The mean decrease in blood pressure in the acumoxa group was $-23,41 \pm 9,28$ greater than control group $-16,86 \pm 7,02$.

Conclusion. Acumoxa therapy can be recommended as alternative support in reducing blood pressure in patients with gestational hypertension.

Keywords: Acupressure, Moxibustion, Gestational Hypertension



Integration of Learning For Disaster Risk Reduction

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ABSTRACT

Background - The layout of Indonesian territory is in three tectonic plates of the world, and in a zone of The Pacific Ring of Fire, so that the Ministry of Energy and Mineral Resources, has a priority for national action to promote strategies to lower the risk of disaster through the school where implementation of its activities through the dissemination of information and knowledge on disaster and the main stream of behavior in order to build a safe and comfortable culture at as well as through learning in school.

Objective - The study aimed to evaluate the knowledge, attitudes and skills of disaster risk reduction implementing of the dissemination of information and knowledge on disaster and the main stream of behavior at the senior high school.

Method - A quasi-experimental non-equivalent (pre-test, and post-test) control-group design was applied in this study and 298 the second level student of senior high schools at Blora involved in this study , further to get a homogenous sample the systematic sampling method.

Result - The result showed that there was a significance $0.00 < 0, 05$, (IK 0.05) for the intervention groups so the H_a was accepted. A Bivariate statistical tests in the control group between before and after the intervention of significance $0.21 > 0, 05$, (IK.0.05) so H_o was accepted.

Conclusion – It can be concluded that the acceptance of H_a in the treatment group and the rejection of H_o in the control group, it was indicated that the study of Integration of Learning for Disaster Risk Reduction in senior high school would enhance the Alertness Against Disaster.

Keywords: *Learning, Alert, Knowledge, Attitudes And Skills*



Family Experience In Supporting Exclusive Breastfeeding In Surabaya

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Background WHO recommends to exclusively breastfeed for the first six months old baby and continue until the age of two years. In Mulyorejo Subdistrict, Surabaya City, exclusive breastfeeding coverage was 70.34%.

Objective The study aims to explore family experiences in support of exclusive breastfeeding. This was a qualitative research with phenomenology study. Participants were families who had children at least one year old of age.

Method Twelve participants were included and snowball sampling was applied. There were 8 themes to describe the research objective: 1) The characteristics of mothers and families, 2) Forms of family support, 3) Family functions, 4) Prevailing cultural forms, 5) Family stress, 6) Environment factors that affect exclusive breastfeeding, 7) Family experiences during exclusive breastfeeding. Experience Families in supporting exclusive breastfeeding included the form of real support, emotional support, and informational support. Family functions in health care include exclusive breastfeeding and complementary food.

Result Stressor in the family included economic factors, infants, and mothers were considered. The prevailing custom also affected during exclusive breastfeeding. The environmental and economic factors affects the mother in giving exclusive breastfeeding. This results can be used by health workers to perform interventions on the family to increase exclusive breastfeeding coverage.

Keywords: *Exclusive Breastfeeding, Family Experience, Support*



Effectiveness of Consumption *Sechium Edule* on Decreasing Blood Pressure in Elderly with Hypertension in Coastal Area

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Background *Sechium edule* contains flavonoids and potassium to reducing small blood pressure in the elderly with hypertension. The serving of chayote for consumption can be juiced, steamed, and squeezed. However, no research proves from three serving is more effective in reducing the pressure of elderly hypertension.

Objective The aims of the study compared from three presentation which is more useful to make blood pressure decrease in elderly with hypertension in coastal area.

Method This study used Pre-Experimental Design with the three-group pre-post-test design. Samples were 51 elderly obtained from purposive sampling. The independent variable was the consumption of *Sechium edule* with the various presentation. The dependent variable was the blood pressure.

Result Based on analysis data used paired t-test with significance p-value ≤ 0.05 . The mean of blood pressure in the juiced group before intervention was 156.28 mmHg and after intervention 152.48 mmHg (decrease 3.8 mmHg). The mean of systolic pressure in steamed group before intervention was 154.46 mmHg and after intervention 151.43 mmHg (decrease 3.03 mmHg). The mean of systolic pressure in squeezed group before intervention 152.51 mmHg and after intervention 152.14 mmHg (decrease 0.37 mmHg). The juiced *Sechium edule* was most effective to decrease blood pressure in elderly with hypertension. The nurse can promote to the elderly in the coastal area to make juiced *Sechium edule* as a non-pharmacological intervention for patient with Hypertension.

Keywords: *Sechium edule*, Elderly, Hypertension



The Correlation Between Masculinity And Smoking Behavior Among Adolescent In Surabaya

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ABSTRACT


Background Smoking behavior is one of risky health behaviors adopted by adolescents in Indonesia. The behavior was commonly recognized as a masculine among male adolescents. The label of man identity called masculinity influences this condition.

Objective This study investigated the association of masculinity as ideology, masculinity norms, and gender role conflict and its correlation with smoking behavior in male adolescents who lived in Surabaya.

Methods: This study used a descriptive correlative method and involved 314 adolescent male aged 15-18 years old in Surabaya as participants. We employed univariate analysis to identify predictors, including the ideology of masculinity (MNRI-SF), masculinity norms (CMNI-46), and gender role conflict (GRCS-I); and a dependent variable: male adolescents' smoking behavior. The data were collected electronically, following waived written consents. Bivariate analyses were conducted to investigate each of predictors questionnaire and dependent variable using chi-square with the level of significance of $p < 0.05$.

Results: Adolescents as participants in this study have low levels of ideological masculinity, high norms of masculinity and gender role conflict in the moderate category. The results indicated that ideology masculinity, masculinity norms and gender role conflicts are positively associated with smoking behavior ($p=0,001$, $p=0,029$, and $p=0,001$ respectively). **Conclusion:** The findings of this study suggested that smoking behavior was constructed as an element to the idea of masculinity in the perspective of male adolescents in Surabaya, despite the available warning to prevent the circulation of tobacco products to adolescents.

Keywords : *Adolescent, Masculinity, Gender Role Conflict, Smoking Behavior*



Mindfulness Based Stress Reduction Interventions and Experiential Learning Method in Supporting Coping Mechanism and Resilience of Family Caregivers of Patients with Cancer: A Systematic Review

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ABSTRACT

Background: Cancer has an impact not only on sufferers but also on families. There are psychological factors related to cancer that have specific properties because they can cause stress, anxiety, fear of loss, and other psychological reactions such as rejection, anger, depression in the family so they need to receive help so that their psychological condition is well maintained. Awareness-based interventions, which have been shown to improve cognitive behavioral psychological functions and experiential learning methods that are able to shape cognitive knowledge with learning that reflects the experience they have.

Objective This review aims to conduct a systematic literature review of the study of mindfulness interventions and experiential learning methods as supportive care for family caregivers of patients with cancer.

Method: Review is carried out by following the PRISMA alloy. We conducted a search of three electronic databases (Scopus, PubMed and Cochrane Database of Systematic Reviews) for studies published between 2013 and 2018 with relevant keywords.

Results: A total of 15 articles were identified through systematic searches and six inclusion criteria from 3,223 articles found. Studies related to MBSR show that the value ($\beta = -0.32$, $p < 0.01$, $r^2 = 0.11$). These results state that the more mindful an individual is, the more harmless the assessment of stress, the results show that mindful individuals will choose stress coping approach strategies rather than stress avoidant coping strategies and experiential learning studies that show the influence of patient empowerment based on experiential learning towards prevention measures for acute complications.

Conclusion: MBSR and experiential learning methods are methods that both are cognitive therapies that use the same understanding of experience as media.

Keyword : *Stress Reduction Interventions, Experiential Learning Method*



Exercise And Physical Activity Counseling Needs Among Cardiac Rehabilitation Patients In Indonesia

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ABSTRACT

Background: The prevention of recurrent cardiac events through cardiac rehabilitation (CR) is critical issue. Nevertheless, existing program for cardiac rehabilitation patients was not performed optimally. Health-care professionals more focused on medical treatment, and less concern on prevention and rehabilitation. The needs of nursing care for cardiac rehabilitation patients have been investigated previously. Yet, information related the cardiac rehabilitation patients' needs on exercise and physical activities counseling are very limited.

Purpose: To investigate exercise and physical activity counseling needs among cardiac rehabilitation patients and its relationships.

Methods: This was quantitative approach with descriptive correlational. Convenience sampling was used for this study. The participants included 38 cardiac rehabilitation patients at the Cardiac Rehabilitation Unit. Data collection employed from questionnaires that were filled in by the respondents using a retrospective technique at the end of CR program. Data were analyzed using descriptive and correlational statistics.

Findings: The study signified that CR patients required exercise (92.1%) and physical activities counseling from nurses (86.9%). The finding also indicated that there is a statistically positive relationship between exercise and physical activities counseling among CR patients ($r = 0.485$, $p < 0.01$).

Conclusion and Recommendations: Most of the CR patients required exercise and physical activities counseling from nurses during performing CR program. Patients' needs on exercise and physical activity counseling among CR patients are correlated positively. Therefore, the information regarding exercise and physical activity for CR patients should be provided simultaneously to complement each other.

Keywords: *Cardiac Rehabilitation, Exercise, Patients' Needs, Physical Activity Counseling*



Factors For Early Marriage In Women In Marawola Sub-District, Sigi Central Of Sulawesi

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ABSTRACT

Background Marriage is something that is expected in human life because through a marriage a family is formed that produces offspring. In Indonesia early marriage is a violation of marriage law. However, we sometimes still see marriages done especially in rural areas, so that it reaps controversy. This study aims to determine the factors that cause early marriage.

Purpose of this study are expected to be an input for parents so as not to rush to immediately marry off a child at an early age because adolescence has not been able to resolve the difficulties faced in the household properly.

Method The research uses qualitative methods with the type of case study research. Research informants were women who were married early, namely age <20 years, female parents who were married early, the Head of the Office of Religious Affairs (KUA) and Community Leaders in Marawola Subdistrict, Sigi Regency, Central Sulawesi using snowball sampling techniques.

Results of the study through in-depth interviews with 3 informants who were married early, as well as triangulation of sources from key informants namely 3 informants of female parents who married early, 1 informant Head of the Office of Religious Affairs and 1 informant from Community Leaders showed that the Factors Causing Age Marriage in Women in Marawola Subdistrict, Sigi Regency, Central Sulawesi is a factor in the social environment, self-will, education of informants and parents of informants and parental care.

Conclusion that the Factors Causing Early Marriage in Women in Marawola Subdistrict, Sigi Regency, Central Sulawesi are social environment factors, their own desires, knowledge, parenting style, economy, family culture and religion. Suggestions in this study are expected for young women, health workers, parents, the community and researchers to participate in efforts to prevent early marriage, especially for women.

Keywords: *Early Marriage, Women*



Changes in reproductive hormones and development of female mice (*Mus musculus*) follicles due to mangosteen peel extract (*Garcinia mangostana* L.)

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ABSTRACT

Introduction: The population in Indonesia increase from 2016 to 2018 and will continue to increase in 2019. This has led to an increase in demand for needs fulfillment, a reduction in consumption sufficiency, and an increase in unemployment. The efforts of the Indonesian government to reduce the rate of population growth by establishing a family planning program for couples of childbearing age with the most widely used methods are injections and pills. However, birth control pill acceptors are 17.2 times at risk of developing hypertension, so it is necessary to develop alternative contraceptives, namely the use of natural ingredients or medicinal plants. Mangosteen (*Garcinia mangostana* L.) has compounds contained to inhibit the fertilization process.

Aims: This study to find out the effect of mangosteen peel extract on reproductive hormone disorders and the process of folliculogenesis in female mice (*Mus musculus*).

Method: This study is a true experimental study with a post-test only - control group design. Mice were divided into five groups, the negative control group; a positive control group that is mice given the combined contraceptive pill; group P1 was given mangosteen peel extract 9.8 mg/day; P2 group was given mangosteen peel extract 19.6 mg/day; group P3 was given mangosteen peel extract 39.2 mg/day for 21 days. Each group consists of 6 mice.

Results: This study shows the administration of mangosteen (*Garcinia mangostana* L.) peel extract at a dose of 9.8; 19.6 and 39.2 mg / 20 g body weight do not affect the level of Luteinizing Hormone (p value 0,172), estradiol levels (p value 0,195), progesterone levels (p value 0,260), and the development of primary, secondary and tertiary follicles (p value 0.587; 0.416 and 0.970)).

Keywords: *Garcinia Mangostana* L, Antifertility, Folliculogenesis, Reproductive Hormones



Positive Effects Of Prenatal Yoga For Pregnancy, Labor, And Labor Outcomes: A Systematic Review

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ABSTRACT

Background : The study of prenatal yoga has been carried out with varying focus on pregnancy labor and labor outcomes.

Aim : The purpose of this study was to find out the positive benefits of prenatal yoga for pregnancy, labor and labor outcomes.

Method : Electronic literature search uses Pubmed, Proquest and Science direct, using the keywords "yoga" and "antenatal or prenatal or pregnancy or pregnant" and "yoga" and "childbirth or labor". Found 51 articles published from 2009 to 2019, and the articles analyzed were 19 articles.

Results : Positive effects antenatal yoga for pregnancy was reduce psychological problems, reduce pregnancy related uncomfortable experiences and sleep disturbance, improve quality of life and interpersonal relationship, reduce complications in pregnancy, reduce back and leg pain, Reduce cortisol, estradiol and progesteron levels, improve uterop-placental-circulation and intrauterin fetal growth, enhance immune, suppress lipid peroxidation, increase antioxidants. Positive effects antenatal yoga for labor was reduce the duration of the labor stage, reduce labor pain and analgesia requirement, and improve mode of delivery. Positive effects antenatal yoga for labor outcome was improve gestational age, birth weight, and APGAR score.

Conclusion : based on an analysis of research evidence in the past 10 years, the positive effect of antenatal yoga is to improve the quality of pregnancy, labor and labor outcomes.

Keyword: *Prenatal Yoga, Pregnancy, Labor*



Maternal Factors of Stunting: Puskesmas Harapan Raya, Pekanbaru

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ABSTRACT

Introduction: Stunting is a health problem by multiple factors (Mother factor, socio-economic factor). The growth retardation (stunting) was measured by height for age scale which primarily indicates chronic undernutrition. In 2018, the prevalence of stunting in Riau province was 35%, which was higher than the national prevalence of 30.8%.

Method: This was a quantitative with cross-sectional analytic design. The study was conducted in Puskesmas Harapan Raya Pekanbaru, Riau, Indonesia. The population was all children (4000), sample was 187 children by systematic random sampling.

Results: Research was to analyze independent variable (risk of stunting) to the dependent variable (mother's age, Parity, Mother Parity, Mother's Height, (LILA) / MUAC (Mid Upper Arm Circumference), Maternal Characteristics (hemoglobin), Tension Mother's, ANC Visit, Dietary habit, Mother's child care, Completed immunization, Weight child and Drink for child.) Research results are maternal hemoglobin in pregnancy with a risk category of having a stunting 53.4%, exclusive breastfeeding with a risk category of having a stunting 54.1%, dietary habit with a risk category of having a stunting 51.3%.

Conclusion: Independent variable (Maternal Characteristics (hemoglobin), Exclusive Breastfeeding, Dietary Habits), is a significant association to stunting. The findings from this study will be helpful for programmatic intervention to reduce the stunting.

Keywords: Stunting, Hemoglobin, Exclusive Breastfeeding, Dietary Habit.





Effectiveness Of *Prenatal Yoga* And *Bitter Orange* Aromatherapy Combination To Lower Back Pain Of Trimester Iii Pregnant Women

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ABSTRACT

Background Lower back pain is typical and serious complain during pregnancy. Lately giving treatment spurs post-partum lower back pain and chronic back pain which are difficult to cure. The alternative to cure such pain is by giving *prenatal yoga* and *bitter orange* aromatherapy combination to relax back muscles and stimulates *endorphin* hormone production.

Purpose This research aims to find out effectiveness of the combination toward back pain of trimester III – pregnant women.

Method This *quasi experimental* research with *non-equivalent pretest posttest* control group design used *numeric rating scale* as instrument to calculate the level of pain. The sampling technique was *purposive sampling*. The sample consisted of trimester III pregnant women suffering lower back pain. There were 30 respondents grouped into two. The statistic test was *Wilcoxon* and *Mann – Whitney* test.

Result The findings showed that experimental group had digressing rate of such pain from 4.33 into 1.60. It had 2.73 reduction. Meanwhile, the control group had digressing rate from 4.13 into 3.07. It had 1.06 less. The result of the statistic test told that p value (0.000) < 0.05. It meant H_a was accepted and H_0 was denied.

Conclusion The combination was recommended as intervention to relief lower back pain for the mothers.

Keywords: low back pain, prenatal yoga, aromatherapy bitter orange





Effectiveness of Assistance in Using the MCH Handbook on Knowledge of Pregnant Women

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ABSTRACT

Background: The success of maternal health efforts, including seen from the Maternal Mortality Rate (MMR). Maternal mortality rate in Indonesia has increased from 2007 (228 / 100,000 live births) to 305 / 100,000 live births in 2015. One of the programs is the use of MCH book that launched in 2004 .It is expected to improve the quality of maternal and child health services and nutrition. Banyumas Regency at the end of 2018 promotes the "MCH Book Reading Movement" for pregnant women and their families as a form of government attention to the health of pregnant women. Only 24% of mothers read the MCH book.

Objective: To find out whether there is any influence of mentoring on the use of MCH books on the level of knowledge of pregnant women.

Method: This study used a pre-experimental design with a pretest-posttest design approach. The sample in this study was 30 pregnant women in the working area of Puskesmas II Baturaden.

Results: The results of the study showed that there were differences in the level of knowledge of pregnant women before and after mentoring the use of the MCH handbook with p value = 0.001 ($p < 0.05$) Conclusion: There was an influence of mentoring on the use of MCH books on the level of knowledge of pregnant women. There is a change in the mean level of knowledge of 6.3.

Keywords: *MCH Book, Assistance, Knowledge Of Pregnant Women*



The Effect Of Lemon Inhalation Aromatherapy On Decreasing Nausea And Vomiting On Pregnancy

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ABSTRACT

Introduction: Nausea and vomiting becomes one of the most common complaints in the early months of pregnancy which can affect the mother's physical and mental condition. Lemon aromatherapy is a safe non-pharmacological therapy used in pregnancy. The resulting scent of lemon which contain linalyl causes the release of some hormones then gives a relaxing effect and stabilizes emotions so that nausea and vomiting can be reduced.

Objective. To determine the effect of lemon aromatherapy in reducing nausea and vomiting.

Methods. This type of research is pre-experimental in the form of One Group Pretest-Posttest. The population was taken using purposive sampling technique and obtained a sample of 32 respondents. Retrieval of research data was using the Rhodes Index of Nausea Vomiting and Retching (INVR). Data processed by using the Wilcoxon Signed Ranks Test.

Results. Descriptively, there were 29 respondents who experienced a decrease in the scale of nausea and vomiting, 3 respondents were on the same scale, while no respondents experienced an increase in the scale of nausea and vomiting. Statistical test results proved that there was a significant difference between the effect of lemon aromatherapy inhalation in reducing nausea and vomiting ($P = 0,000$).

Conclusion. Lemon inhalation aromatherapy effectively decreased nausea and vomiting of pregnancy.

Keyword : Decreasing Nausea, Vomiting On Pregnancy



Effectiveness of seaweed on hemoglobin levels in pregnancy of third trimester in Tanjungpinang, Riau Islands Province, Indonesia

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ABSTRACT

Introduction: Low hemoglobin (Hb) levels in pregnant women can cause miscarriage, stillbirth, low birth weight babies, bleeding before and during delivery, and maternal death. Seaweed type *Eucheuma* sp is one food ingredient that contains substances, several substances needed in the synthesis of hemoglobin, has a high bioavailability of substances and is able to stabilize erythrocytes, leukocytes, and hemoglobin.

Objective: The aim of the study was to know the effect of seaweed on hemoglobin levels in third trimester pregnant women.

Method: The research design was pre-post test control group design. The research respondents were pregnant women of third trimester. The experimental group was given 200 grams of seaweed (*Eucheuma* sp) and 60 mg Fe tablets for 7 days, while the control group only received 60 mg Fe tablets. On the 8th day hb levels were measured again.

Results: Hb of pregnant women before the intervention in the control group and the experimental group was not much different, 11.8 gr/dl (SD=1.4) and 11.7 gr/dl (SD=1.1). After the intervention, the average value of hb levels was 12.9 gr/dl (SD=0.8) in the experimental group and 12.0 gr/dl (SD=1.3) in the control group. There was a difference in hemoglobin levels in pregnant women after given an intervention with $p < 0.05$ ($p = 0.005$).

Conclusion: It can be concluded that seaweed consumption can increase hemoglobin levels in pregnant women of third trimester.

Keyword : Hemoglobin Levels, Pregnancy



Effect Of Counseling On Complementary Feeding On Nutritional Status Of Under Two Years Old Mothers With Underweight Nutrition

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ABSTRACT

Background : Ignorance about how to supplement complementary breastfeeding for infants and children is the main cause of malnutrition. To get good complementary breastfeeding in terms of quantity and quality, it is necessary to provide complementary breastfeeding counseling.

Objective : This study was conducted to observe changes in the weight for age index when given supplementary breastfeeding counseling to mothers of children with poor nutritional status.

Method : The design used in this study is Quasi Experiment Design, Pretest-Posttest With Control Group research design. Different tests were analyzed using Wilcoxon and Mann Whitney.

Results : weight for age index before being given counseling of -2.54. After being given counseling it increased to -2.41. There were significant differences in Z scores before and after counseling. In the control group, the average Z score decreased, so that the complementary breastfeeding booklet did not affect the Z score score. Changes in nutritional status were better in the group of children whose mothers received complementary breastfeeding counseling treatment compared to the group of children whose mothers were given the complementary breastfeeding booklet.

Suggestion : Counseling is needed in dealing with nutritional status problems. Educational media provided to the community are less than optimal if there is no income in delivering messages.

Keywords: *Counseling, Malnutrition Status, Complementary Breastfeeding.*





The Effect Of Labor Holistic Classes On The Belief Of Mother Against Labor, The Stress Level, And Long Time Of Second Stage Of Labor

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ABSTRACT

Background: The process of pregnancy and childbirth is a very valuable experience for women because at this time there were major changes both in the pregnant mother and the family, especially her husband, however not all women experience a pregnancy that goes well and ends with a delivery for the mother and baby.

The purpose of this study was to determine the effect of the quantum class of labor on stress levels, labor beliefs, and the length of time II labor.

Methods: This type of experimental research, pre-post test design with control group design, the population is third-trimester pregnant women with 33-34 weeks gestational age. Randomly selected in the district of Tegal. Then the mothers were divided randomly into two intervention groups given the Quantum labor class and the control group standard program for pregnant women. The total number of respondents was 30 pregnant women divided into two classes. Mothers in each class were given four times the meeting material for 2 weeks and measured before and after the intervention in the first and fourth weeks and followed until delivery. Analysis of data using t-test.

Results: The results showed that there was an influence on the level of stress and confidence of the mother before attending the Quantum class compared to the standard class of pregnant women ($p < 0.05$) and your differences in the level of stress and confidence of the mother in the Quantum class compared to the standard class of pregnant women ($P > 0.05$). Besides that, there is also the influence of the duration of the second stage of labor with an average length of the second stage of 28.80 minutes and those who did not attend the Quantum class of the average length of the second stage of 80.53 minutes ($p < 0.05$).

Conclusion: Mothers must be prepared with the Quantum method of labor to reduce stress and increase maternal confidence in clarifying labor.

Keywords: *Quantum Labor, Old Time II, Stress Levels, Labor Beliefs*





Exposure To Secondhand Smoke While Breastfeeding Cause A Reducing Its Protective Properties And Higher Diarrhea Prevalence On Infants

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ABSTRACT.

Background Diarrhea is the second leading cause of mortality among children younger than age 2 years in Indonesia after upper respiratory infections. The scope of mothers who reported exclusive breastfeeding in East Kalimantan is 29% and the prevalence of smoking father is 25%, so there is higher presentage of mothers and children exposed to secondhand smoke. We identify and diagnose 170 children.

Method Breastfeeding pattern as the independent variable, occurence of diarrhea as the dependent variable, and intermediate variables including children's age and smoking father. The statistical analyses used multiple logistic regression.

Result There are 31.2% children with 1-12 months of age with diarrhea, 37.6% of them being fed breast milk exclusively, 59.4% partially, and 2.9% predominantly. Among them, 60.1% of fathers are actively smoking. We found association between smoking father and the occurrence of diarrhea on children with logistic regression analysis p value 0,030 exp value (B) of 2,077 (95% CI: 1,072-4,025). The association of partial and exclusive breastfeeding and diarrhea occurrence with p value of 0.0018 and 0.005 each. Exp value (B) of 3.0 (95% CI: 1.4–6.5). Exclusive breastfeeding could help preventing of diarrhea. Smoking father would affect the protective properties of breast milk with cigarette smoke exposure risk higher prevalence of diarrhea.

Keywords: *Breastfeeding , Diarrhea Prevalence On Infants*



Effect Of Sukun Consumption To Help Absorption Of Fe Tablets On Change Of Hemoglobin Pregnant Women Mother

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ABSTRACT

Background Pregnant women are prone to iron deficiency anemia due to iron deficiency anemia due to *hemodilution* which results in blood thinning, the increase in blood is not proportional to the increase in plasma, the lack of iron in food and the need for increased iron and impaired digestion and absorption. The number of anemia cases of pregnant women in Cilacap Regency in 2018 was 37.30% and in Kroya District was 31.61%. Iron absorption is influenced by the availability of vitamin C to help reduce ferric iron (Fe³⁺) to ferrous (Fe²⁺) in the small intestine so that it is easily absorbed. The content of vitamin C breadfruit varies from 29 to 62 mg per 100 grams so that the breadfruit can be an alternative food consumption to increase iron absorption.

Purpose of this study was to determine the effect of consumption of breadfruit to help the absorption of Fe tablets on changes in hemoglobin levels in pregnant women.

Method Type of research *Quasy experiment* with a *Non-randomized Control Group Pretest - Posttest Design* researchThe research instrument used a questionnaire and *Photometer 4010 Boehringer Mannheim* accuracy of 0.01 g / dL.

Results showed that there were differences in the mean hemoglobin levels of pregnant women after the intervention of breadfruit consumption (probability value 0.001), and there was an average increase in hemoglobin levels in the treatment group by 1.669 gr%, in the control group the mean hemoglobin level decreased by 0.088 gr% and there was an influence of breadfruit consumption to help the absorption of Fe tablets against changes in hemoglobin levels in pregnant women (probability value 0,000).

Keywords : *Breadfruit, Fe Tablets, Hemoglobin, Pregnant*





A Qualitative Study Of Behavior Of Giving Complementary Feeding To Infants With The Baby Led Weaning Method For Active Members Of The Blw Story Community And Social Media Follower @ceritaBLW in 2019

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ABSTRACT

Introduction : "Finger food", which is a food that can be held by a baby, since the baby is 6 months old, without going through the stage of feeding with soft consistency (puree or pulverized).

Purpose This study aims to analyze the behavior of giving complementary feeding to infants using the BLW method for active BLW story community members and social media follower @ceritaBLW in 2019.

Methods: The design of this study is qualitative research using the Rapid Assessment Procedure (RAP) method. Data analysis in this study uses content analysis method. In this study the information obtained from the results of in-depth interviews (WM) is grouped into behaviors, knowledge, attitudes, sources of information, and family support.

Result: The knowledge of most mothers about the BLW method is very good and in accordance with the BLW theory. The mother's attitude about the BLW method is mostly positive and supportive.

Conclusion: From the knowledge, attitude, availability of information, and good family support, finally the informant can do the behavior of giving complementary feeding with the BLW method. Suggestions for the Ministry of Health, health workers, and parents who have babies 6-24 months are expected to be able to consider BLW because this method provides many benefits.

Keywords: *Baby Led Weaning, Complimentary Feeding, BLW*





The Influence Of Green Bean Juice On Levels Hemoglobin In Teenage Girls

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ABSTRACT

Background - Anemia is one of the biggest public health problems. The incidence of anemia female adolescent in Asrama Griya Bhakti Husada in November 2017 was 50% and in December 2017 rose to 60%. One type of nuts that contain high iron is green beans (*vigna radiata*). Iron (Fe) is the most in green beans at the time of embryo and skin of seeds with the amount of iron as much as 6.7 mg per 100 grams of green beans.

Objective – The purpose of this research is to know the effect of red juice to hemoglobin level in female adolescent in Griya Bhakti Husada Dormitory.

Method- This research uses Quasi Experiment research type with Pretest-Posttest Design with Control Group design. Respondents took *randomized control sampling's* technique with a sample size of 57 people divided into 3 groups, green bean group, iron tablet group and control group. The tool used to collect the data in this study is a questionnaire sheet for screening samples, measurements and measurements of digital *quick checks* before and after given green peanut syrup.

Result of this research is the effect of green bean extract on hemoglobin level in female adolescent with p value 0.000.

Conclusions. Administration of green beans may be used by young women as a way to increase hemoglobin levels and prevent anemia.

Keywords : *Green Bean, Extract, Hemoglobin, Teenage Girls*



Effect of soy Milk Administration On Blood Pressure, LDL Level and Protein in Urine Of Women With Gestational Hypertension

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ABSTRACT

Background Maternal Mortality Rate (MMR) in was 22 cases, 29 cases, and 33 cases in 2012, 2013, and 2014, respectively (Health Agency of Semarang Municipality, 2015). The major cause of maternal mortality in Semarang in 2015 was eclampsia (48.48 %). Women with preeclampsia experience increased Very Low Density Lipoprotein (VLDL) that results in endothelial damage and protein in urine. Soy milk helps to lower blood pressure and LDL because it contains isoflavone. **Objective** This research aims to find out if soy milk and avocado do lower blood pressure, LDL level, and protein in urine of women with gestational hypertension. It employed the pretest-posttest experimental design without control.

Method Respondents were pregnant women who were diagnosed with hypertension. They had to undergo 14 days of treatment. Data collected were then analyzed using the bivariate method with paired t-test.

Results showed no differences in systole and diastole blood pressures and LDL before and after treatment. However, significant differences were found for protein in urine before and after treatment. Pregnant women are expected to pay regular visits to health care centers and consume soy products to help maintain proper levels of protein in urine.

Keywords: *Systole, Diastole, LDL, Protein In Urine, Gestational Hypertension*



Pregnancy Exercise As An Alternative For Improving The Readiness Of Labour And Body Image Score

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ABSTRACT

Background Pregnancy exercises for pregnant women both primigravida and multigravida are needed. The benefits of pregnancy exercise are increasingly being felt. There needs to be another indicator that shows the benefits of pregnancy exercise.


Objective The purpose of this study is to prove that pregnancy exercise affects readiness of labor and body image score in pregnant women.

Method This research is quasy experimental with pretest posttest control group. As for the number of treatment samples of 20 people, the control group of 21 people with purposive sampling. Implementation in Kab. Grobogan. During July to October 2019. Analysis of univariate data and bivariate t tests.

Results showed that there were significant differences in the readiness of labor and body image score in the group treated with exercise at the pretest and posttest with p values of 0.010 and 0.018. Pregnancy exercise affects for increasing the readiness of labor readiness and increase body image score between the treatment and control groups with a value of $p = 0,000$ and $p = 0,000$.

Conclusion pregnancy exercise influences in improving the health status of pregnant women. It is a need to socialize and encourage for pregnant woman to access the modules, leaflets, videos or other materials of pregnancy exercises.

Keywords: *Pregnancy Exercise, Labor Readiness, Body Image Score, Beta Endorphin Hormone*



The Effectiveness Of The Combination Of Perineal Massage And Warm Compresses On The Degree Of Perineal Laceration In Primigravida Maternity

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ABSTRACT

Background According to survey data from 2017, the number of perineal laceration incidents among primigravida in Puskesmas Karangtengah Demak was 260 from a total of 322 normal deliveries. Some measures that can be taken to prevent perineal laceration are perineal massage and warm compresses.

Objective This research aims to compare effects of perineal massage with and without warm compresses in preventing perineal laceration. It was conducted at Puskesmas Karangtengah Demak.

Method This research employed pre-experiment design using Static Group Comparison method. The population was primigravida at ≥ 36 weeks gestation who visited Puskesmas Karangtengah Demak.

Results show significant differences among, perineal massage group, perineal massage and warm compresses group, and the control group with a significance of 0.001 or ($p < 0.05$). It is evident that the perineal massage and warm compresses group has more effective results with a mean rank of 14.11.

Recommendation it is expected that health care professional can improve management and quality of midwifery services by providing thorough ante-natal care and motivate pregnant mothers to have perineal massage and warm compresses. Family members and/or husbands are also expected to support these practices as to prevent perineal laceration or to reduce its degree

Keywords: *Perineal Massage, Warm Compress, Laceration Degrees*



Effectiveness Combination Of Finger Grip And Deep Breathing Relaxation Technique To Reduce Postpartum Perineal Wound Pain

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ABSTRACT

Background Perineal wound pain can be a problem for because it will cause discomfort and anxiety to mobilize. One of intervention in a non pharmacological way is by combination of finger grip and deep breathing relaxation technique.

Objective The purpose of this study was to determine the effectiveness of combination of finger grip and deep breathing relaxation technique to reduce postpartum perineal wound pain.

Method This study was a Quasi Experiment study, the sampling technique using accidental sampling on respondents who experienced perineal wound pain in 2 hours postpartum time, with 30 respondents.

Result showed p value of $0,001 < 0,05$ mean, mean rank in combination of finger grip and deep breathing of 19,80 while the mean rank in deep breath was 11,20 , so that combination of finger grip and deep breathing relaxation 3 times more effective in reducing perineal wound pain in postpartum. The combination of finger grip and deep breathing can be an option in the management of perineal wound pain in postpartum. Besides that it needs to be improved in further research to be able to control the factors that can interfere with the course of research.

Keywords: *Finger Grip Relaxation, Deep Breathing, Perineal Wound Pain*





Factors Affecting Uterine Involution and Afterpain of Postpartum Mothers : A Pilot Study

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ABSTRACT

Abstract. Uterine involution is indicated by decrease of fundus height ≥ 1 cm per day due to myometrium contraction which also stimulates afterpain. This research aims to analyze factors affecting uterine involution and afterpain of postpartum mothers.

Methods: This study used analytic observational method with cross sectional design. There were 20 respondents meeting the inclusion criteria who are taken by consecutive sampling. The inclusion criteria were mothers whom were within 5 hours after laboring, vaginal birth, and suffering no disease. The exclusion criteria were those whom were not willing to be the respondents, consuming uterotonic and analgesic. This study was done in October 2019 at Sron dol and Ngesrep health center, and a clinic at Ungaran. Observed the process of uterine involution through fundus height measurement by using tape and observed the intensity of afterpain by using Visual Analogue Scale. Statistic analysis with spearman correlation and chi-square tests.

Results: Factor affecting uterine involution was baby's birth weight with p value 0.003 and factor affecting afterpain was parity with p value 0.033.

Conclusion: There were correlation between baby's birth weight to uterine involution and there were correlation between parity to afterpain.

Keywords: *uterine involution, afterpain, postpartum mothers*





Impact Of Acupressure Therapy On Milk Production Of Post Partum Mother

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ABSTRACT

Background The production of breast milk that is not smooth will affect the success of breastfeeding. The results of the preliminary survey during October 2018 at Taman Sari Clinic 2 out of 20 postpartum women found that 100% of their breast milk was not smooth, of which 45% stated on the first day and 45% the second day while 10% again on the third day. One way to facilitate ASI is acupressure.

Objective The purpose of this study was to determine the effect of acupressure therapy on breast milk production.

Method This type of research is a quasy experiment with design *post test only*. The population in this study were all postpartum mothers on the first to fourth day in January to March at Taman Sari 2 Clinic totaling 45 people. The sample was 30 postpartum mothers with 15 people as the intervention group and 15 people as the control group taken by *purposive sampling*. The statistical test used was *the Mann Whitney Test* with a significance level of 95%.

Results of the study were that the average breastfeeding production of postpartum performed by acupressure therapy was 93.60 ml (SD: 63,208) and those who were not given acupressure therapy were 48.87 ml (SD:48,178). There was a difference in ASI production between postpartum mothers who were given acupressure therapy and those who were not given acupressure therapy ($p= 0.029$). Acupressure technique can be predicted to increase the amount of breast milk by as much as 2 times.

Keywords: *Acupressure Therapy, Post Partum Mother*



Effective Whatsapp On Increasing Knowledge And Attitude About Stunting

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ABSTRACT

Background This research is to identify the effectiveness of audiovisual, social media (whatsapp) and leaflets on improving the knowledge and attitudes of the village PKK driving team about stunting. This is necessary because stunting occurs in about a quarter of children under five in the world. The current health education media use audiovisual and depend on electrical energy, the nature of the communication is unidirectional while leaflets are easily scattered and lost. WhatsApp is currently widely used by the public but unfortunately is less studied as a cellular health modality.

Objevctives This research proposes the use of WhatsApp as a breakthrough to provide information so as to increase knowledge and attitudes about stunting.

Method The method used in this study uses a quasi-experimental design with a pretest - posttest control group design approach. A sample of 30 for each group. The sampling technique uses non-probability sampling type consecutive sampling. The tool used as a data collector in this study was in the form of a questionnaire. Audiovisual media, whatsapp and leaflets used are based on theoretical reviews.

Results obtained are at least two groups of health education media that have effectiveness in increasing knowledge and attitudes with $p = 0,000$.

Keywords: *Stunting, Whatsapp*





Menstrual Hygiene Management Practice Among Senior High School Students

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ABSTRACT

Background Menstrual hygiene management (MHM) is a management of hygiene and health when women experience menstruation. Based on UNICEF's research in Indonesia, 46% of girls change their sanitary napkins less than 2 times a day, whereas it must be at least once every 3-4 hours. Sanitary napkins change if done for more than 8 hours will cause genitals irritation and infection which will later affect health.


Objective The study was aimed to determine the practice of MHM in female students of senior high schools.

Method The research was carried out at five Senior High Schools throughout Magelang City. The population of this study is all female students with a sample of 267 respondents. The research method is mixed methods with explanatory design, where quantitative data is collected first, and qualitative data is collected afterwards. Spearman test and linear regression analyses were applied.

Result Bivariate analyses showed significant results on the variables of peer support (p-value 0,000), teacher roles (p-value 0.002), and facilities (p-value 0.003). Multivariate analyses revealed that the most influential variable was peer support (p value 0.001). It is expected that midwives can contribute in providing health education regarding Menstrual Hygiene Management (MHM) in cross-sector collaboration with the Education Office.

Keywords: *Menstrual hygiene management (MHM), senior high school, students*





The Effect of Use of Ergonomic Childbirth Chair in the Period of Second Stage of Labor in Primipara

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ABSTRACT

Background Determination of the position for mothers facing childbirth especially in the second stage is very important, because changes in the position and the right movements really help the mother to be more comfortable, more relaxed, able to move freely and can know the position of the baby and the progress of labor. The accuracy in choosing the position when going to labor when the second stage is important to note because it is related to the comfort and duration of labor II. the development of ergonomic labor chair products is carried out by applying an ergonomic design (paying attention to body size, abilities and physical limitations of humans / *human factors*).

Objective To determine the effect of labor usage ergonomic chairs to the second stage on the long delivery Primipara. Amount samples.

method research are pre experimental with Case control design sample number 40 was calculated by the formula Bernard, sampling techniques randomised Control trial

Results Test Mann Whitney In the group using the the ergonomic chair during childbirth (treatment) the average of the second stage was only 35.4 minutes while in the group that did not use an ergonomic labor chair (Control) the average was up to 60.4 minutes. There was a significant difference in the second stage between the treatment and control groups ($p = 0.016$). Likewise in the group that used an ergonomic chair when giving birth (treatment) the mean had a back pain score of 5.4 while in the group that did not use an ergonomic delivery chair (Control) the mean had a back pain score of 2.0. There was a significant difference in back pain scores between the treatment group and the control group ($p < 0.001$).

Conclusions ergonomic labor chairs make a shorter time period 2. With a value of $p = 0.016$ and the use of ergonomic labor chairs make scores of low back pain in labor lower, and pain is reduced a lot.

Keywords: *Ergonomic childbirth chair, Second time , Back pain*



Analysis Of Risk Factors Of Stunting Events Of Children Aged 24-59 Months In Banyumas District

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ABSTRACT

Background The occurrence of short toddlers or *stunting* as a toddler nutrition problem at this time. Prevalence data *Stunting* according to the *World Health Organization*, Indonesia is among the third-highest prevalence countries in Southeast Asia. The average prevalence of toddlers *stunting* in Indonesia in 2005-2017 is 36.4%, it is estimated that there are 37.2% of children aged 0-59 months or around 9 million children with stunting. Risk factors affecting stunting include the length of birth, history of Low Birth Weight, short maternal posture, poor nutrition during pregnancy and failure of exclusive breastfeeding.

Objective The purpose of the study was to determine risk factors for *stunting*: gender, length of birth, birth weight, history of infectious diseases, history of breastfeeding, immunization and maternal height in Banyumas Regency.

Method This type of observational research design *case-control*. The population of toddlers *stunting* aged 24-59 months in the Sumbang District was 201 children. Sampling using as many as 67 toddlers, 34 cases of toddlers and 34 toddlers control groups, sampling technique *simple random*.

Result The results of the study of Low Birth Weight Babies as a risk factor for *stunting* age 24-59 months OR: 5.760 and *p-value* 0.021 means that birth weight less than 2,500 grams has a risk of 5.760 times greater *stunting*. History of as a risk factor for *stunting* breastfeeding OR: 3.429 and *p-value* 0.01 means that toddlers given exclusive breastfeeding have a risk of 3.429 times less *stunting*. The results of multivariate analysis of the most influential risk factors for *stunting* were the history of breastfeeding OR: 3.443 compared to the history of birth weight OR: 3.269 and sex OR: 0.403. It is recommended to improve health promotion, intervention to improve the quality of nutrition in pregnant women and before pregnancy, the importance of education in providing exclusive breastfeeding.

Keywords: Risk Factors, Stunting, Age 24-59 Months



The Influence Of Practical Complementary Feeding Module On Mother Behavior

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ABSTRACT

Background of the study is that at the age of 6 months babies are given complementary feeding, but most do not receive complementary feeding both in terms of quality and quantity. One reason for the behavior of parents in giving complementary feeding is the lack of knowledge about nutritious food in their babies. Knowledge about complementary feeding can be provided through a variety of media, one of which is the module.

Objective The purpose of this study was to determine the influence of practical complementary feeding module on mother behavior.

Method This research method is a quasi-experimental study with *pre-post control group design* with design *cross sectional*. The independent variable is the practical complementary feeding module and the dependent variable is the mother's behavior, including knowledge, attitudes, practices. The sample in this study were mothers who had babies or toddlers aged 6-24 months in the Blora Community Health Care area. The sampling technique is *simple random sampling*. The number of samples in this study were: 102 respondents, consisting of 51 control groups and 51 treatment groups. Analysis of research data using *independent t-test*

Result. The results of the study are there is the effect of the practical complementary feeding module on the level of knowledge ($p < 0.000 < 0.05$), there is the effect of the practical complementary feeding module on attitude ($p < 0.000 < 0.05$), there is the effect of the practical complementary feeding module on practice ($p < 0.000 < 0.05$). The conclusion is that the practical complementary feeding module influences maternal behavior.

Keywords: Module, Complementary Feeding, Behavior



Health Education Intervention About Early Detection Of Growth And Development Of Infants For Mothers

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ABSTRACT

Background : *A healthy and intelligent child with good growth and development is every parent's dream. Many children are found to be experiencing growth and development delays which can be caused by a lack of caring parents in the early detection of growth and development.*

Objective : *To determine the effect of health education on mothers' knowledge, attitudes and practices regarding early detection of growth and development in infants*

Method : *This study was pre experiment with pretest-posttest design. The sample of this study was mothers who had 30 babies with cluster sampling. One group first observed their knowledge, attitudes and practices and then was given a health education intervention at the beginning of the meeting, the material was provided through power points, videos and leaflets after that every day using video through WhatsApp and re-observing after 2 weeks.*

Results : *Different test results with Wilcoxon test obtained there were differences in knowledge before and after treatment with p-value 0.040, there were differences in attitude with p-value 0.008 and there were differences in practice with p-value 0,000.*

Conclusion: *The provision of health education can change the behavior of mothers in the early detection of growth and development in infants significantly. It is expected that policy makers provide training facilities for early detection of growth and development of children for health workers and cadres so that it can be widely applied to children, especially infants.*

Keywords: *Early Detection; Growth; Development; Baby*





Effectiveness of Acumoxa Therapy on Reducing Blood Pressure in Gestational Hypertension

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ABSTRACT

Background. Gestational hypertension (GH) causes 10% of maternal deaths worldwide with a prevalence of 5-10% in pregnant women and will experience a 25% increase in pregnant women with a previous history of hypertension. GH occurs due to reduced blood perfusion to the organs due to vasospasm and endothelial activity characterized by increased blood pressure and urine protein. Lowering blood pressure to the normal range is one of the keys to overcoming maternal deaths from GH. So far, the administration of anti-hypertensive drugs that are carried out to stabilize maternal blood pressure has long-term effects that need to be reconsidered. One of the complementary alternative therapies that can reduce blood pressure by giving acumoxa therapy is a combination of acupressure and moxibustion techniques. The novelty in this research is a modified therapeutic procedure.

Objective. To evaluate the effects of acumoxa on blood pressure in patients with GH.

Methods. A randomized controlled trial with pre and post-test was used. In total, 34 participants with GH from three community health center in Brebes Regency were randomly assigned to the experimental group that received acumoxa was applied to the governor vessel 20, large intestine 11, heart 7 and kidney 3 acupoint was applied for 5 min through 4 weeks (n=17) and the control group that received acupressure was applied to the same acupoint except kidney 3 didn't used (n=17). Sampling in this study uses a saturated sample technique. Outcomes were assessed through blood pressure measurements before and after the acumoxa intervention. Then the independent t-test ($p > 0.05$) was performed.

Results. After the acumoxa intervention, a significant difference existed between the two groups in blood pressure ($p > 0,05$). The mean decrease in blood pressure in the acumoxa group was $-23,41 \pm 9,28$ greater than control group $-16,86 \pm 7,02$.

Conclusion. Acumoxa therapy can be recommended as alternative support in reducing blood pressure in patients with gestational hypertension.

Keywords : *Acupressure, Moxibustion, Gestational Hypertension*



Analysis Of Implementation

Policy Control Program Hiv / Aids(*Human Immuno -Deficiency Virus / Acquired Immunodeficiency Syndrome*)And Pims (Sexually Transmitted Infections Diseases) First Level In Health Facilities

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ABSTRACT

Background: The incidence of HIV / AIDS and PIMS cases in Indonesia especially in Central Java has increased in number every year. To overcome the problem of the high number of cases of HIV / AIDS and PIMS that occurred, the provincial government set a regulation in controlling the disease that refers to the HIV / AIDS Control Program and PIMS in First Level Health Facilities by the Ministry of Health in 2016. It is expected that the program This can break the chain of occurrence of cases of HIV / AIDS and PIMS while making a healthy and productive generation of quality.

Purpose: The purpose of this study is to determine the implementation of programs to control HIV / AIDS and PIMS in Banyumas District

Method : The design of this study was descriptive qualitative through in-depth interviews. The main informants were 10 KTHIV Puskesmas, triangulation informants were PLWHA patients, Clinical Doctors, Head of Department of Health Services P2P. Data collected by in-depth interview technique. In addition to the interview, a survey was also conducted with people living with HIV. Processing and analysis of data using taxonomic analysis.

Results: Implementation HIV / AIDS control program policies are not running optimally in their implementation. The lack of optimal implementation of HIV / AIDS and PIMS prevention policies is due to several aspects, namely the accuracy of the policy, the accuracy of the implementation, the accuracy of the target, the accuracy of the environment, and the accuracy of the process.

Suggestion: Need to increase monitoring and evaluation related to a program's policies. Improving the quality of human resources and careful planning related to the control program.

Keywords: *HIV, AIDS, PIMS,*





ABSTRACT

Researcher Umaroh, Ulfa Musdalifah

Background Three causes of maternal death in Indonesia are bleeding, hypertension in pregnancy (HDK), and infection. However (Indonesian Ministry of Health, 2015). The need for other efforts to reduce deaths due to bleeding. Alternative effort is the promotion of the use of stagen to increase contractions uterines the mother postpartum.

Objective to find out the most effective stagen between 5 meters, 10 meters and the effective use of octopus.

Method used is a quasi-study experimental with *time series with control group* data analysis *Repeated Measures Anova*. The population is postpartum mothers in Central Java with 4 regions namely Jepara Regency, Semarang City Salatiga City and Grobogan Regency. The samples used were 20 postpartum mothers in the 5 meter stagen group, 38 in the 10 meter stagen group, 20 in the octopus usage group, data collection by measuring the height of the fundus uterus at 1, 3, 5 and 7 days post partum. The instruments used were metlin and measurements by ultrasound on the 7th postpartum day. TFU measurements were carried out by an enumerator of a midwife who carried out practices at the Puskesmas and Midwife Independent Practices.

Results showed a decrease in TFU with a mean in the TFU octopus group on day 1 with day 7 was - 5,550 cm, while on day 7 with day 3 -4,075 cm and day 7 with fifth day was -1,675 cm. with a value of *P 0,000* which means meaningful. In the 5 meter stagen group the results were obtained, TFU on day 1 with day 7 means -5,289, day 7 with day 3 mean -3,605 while on day 7 with day 5 with mean -1,711. with a value of *P 0,000* which means meaningful. In the 10 meter stagen group results were obtained, TFU on day 1 with day 7 means -6,658, day 7 with day 3 mean -3,605 while on day 7 with day 5 with mean -1,505. with a value of *P 0,000* which means meaningful.

Conclusion Based on the above results the most effective stagen is 10 meter stagen with an average decrease in TFU on day 7 of 6.658 cm. The advice given is that in normal labor you can use a 10 meter stagen so that contractions uterines can run normally.



ABSTRACT

Background Health and nutrition development policies for the period 2015-2019 / Perpres No.2 / 2015 are focused on reducing the prevalence of stunting. Stunting problems are influenced by the condition of the mother, the fetus, infancy, including illnesses suffered during infancy and other conditions that affect health. The government targets in 2019 the prevalence of stunting in children under 2 years must decrease by 28% of cases that occur in Indonesia.

Objective This study aims to analyze the incidence of stunting in Indramayu Regency.

Method This study uses a quantitative research design with cross sectional approach. The population in this study were mothers who had stunting children in the working area of the Kandanghaur Community Health Center in Indramayu Regency, while the sample of this study was 308 people. The instrument used was a questionnaire sheet. Analysis of the data used is univariate analysis.

Result Based on the results of measurements returned to the sample of 308 children who have been declared stunting it is known that there are only 119 children who were declared stunting. This happens because there are errors in measuring during posyandu activities, the measurement results in the posyandu are not well documented so the reported data does not match the data in the field.

The conclusion in this study is that the high number of stunting is not entirely due to cases in the field, but errors in measurement and reporting are a major contribution in increasing stunting rates. Then it is necessary to conduct training on posyandu management for posyandu facilitators

Keyword : Stunting, Prenatal, Postnatal, Higiene Personal, Sanitation



ABSTRACT

Introduction: *Tempeh gembus* is Indonesian local functional food. It was made from fermented waste-tofu by *Rhizopus oligosporus*. Although the basic material was from the waste-tofu, but it contains high fiber. The levels of fiber on *tempeh gembus* are three times higher than soya bean tempe. Fiber are expected to lower blood glucose levels.

Objective: To analyze the effect of *tempeh gembus* variations intervention on fasting blood glucose levels.

Methods: An experimental research with pre-post randomized control group design. Forty volunteers who met inclusion criterias were randomly assigned into two groups, 1) the treatment group got isocaloric diet of 1500 kcal and additional 150 gram processed *tempeh gembus* variation twice a day for 28 days; 2) the control group only got isocaloric diet of 1500 kcal. Baseline characteristics were interviewed with questioner. Body weight, height and waist circumference were measured directly. Blood glucose levels were collected with blood glucose test.

Result: The average intake of treatment group with processed *tempeh gembus* intervention during study was 58,9%. The average fiber intake of treatment group were twofold greater than control group. The fiber intake were significantly different between control and treatment group ($p < 0.05$). The fasting blood glucose levels were not significantly difference between control and treatment group after intervention. The deviation of mean blood glucose levels were not statistically different between control and treatment group ($p < 0.05$), but the intervention was clinically able to lower fasting blood glucose levels by 4.5 mg/dL in treatment group. Alteration in blood glucose levels showed no significant difference between control and treatment group ($p < 0.05$)

Conclusion: *Tempeh gembus* variation intervention for 28 days could increase fiber consumption without statistically significant decrease the blood glucose levels.

Keywords: tempeh gembus, fasting blood level glucose



Correlation of Obesity with Blood Glucose, Blood Pressure, And Cholesterol Level Among Women Prisoners

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ABSTRACT

Introduction: Obesity is becoming a crucial health problems, since causes several non-communicable diseases.

Aims: This study to investigate the prevalence of obesity among women prisoners and its relation to blood glucose, cholesterol level and systolic/diastolic blood pressure.


Method: This research was cross sectional study, involving 170 women prisoners. Data collected were body weight, height, waist circumference, blood glucose, cholesterol level, systolic and diastolic blood pressure. Body Mass Index and waist circumference were used to determine the obesity.

Results: The subjects age were 27 – 51 years. Based on BMI, 40% were overweight, and 43,5% were obesity, whereas 82,9% were abdominal obesity. Most of the subjects had normal blood glucose level, sistolic and diastolic blood pressure.

Conclution: There were relationship between body mass index and blood glucose level, systolic and diastolic blood pressure. Waist circumference were also related with blood glucose level, systolic and diastolic.

Keywords : *Obesity, Body Mass Index, Waist Circumference, Blood Glucose, Blood Pressure, Cholesterol*





Effectiveness Giving Of Early Menarch Prevention Pocketbooks To Improvement Of Knowledge, Attitude, And Improvement Eating Patterns Elementary School Students In Pedurungan Semarang

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ABSTRACT

Background : Menarche age shift to a younger age will be at risk of developing breast cancer, accumulation of fat in adipose tissue, and insulin resistance. The acceleration of the age of menarche tends to be experienced in children with the nutritional status of obesity and overweight. Risk factors for t are high fat intake, high animal protein intake. High plant protein intake protects the occurrence of early menarche.

Objective : To determine the effectiveness of giving early menarch prevention pocketbooks in improving knowledge, attitudes and eating patterns of elementary school students.

Method : The design is pretest-posttest control group design. Subjects were female students who had not yet been menarch at the elementary school in Pedurungan Semarang. Subjects were 28 as the treatment group and 28 as the control group. Knowledge, attitude and food intake measurements were taken. Measurements were made before and after treatment in both groups. Food intake was measured by the 24-hour recall method. To find out the effectiveness of giving early menarch prevention pocketbooks in increasing knowledge, attitudes and improving the eating patterns of elementary school students, the anova repeated measures test was used with a significance level of 5%.

Result : Giving of early menarche prevention pocketbook increases knowledge and attitude of prevention of early menarche in elementary school students ($p = 0,000$). Giving of early prevention book for menarche has not been able to improve the protein intake ($p = 0.512$), fat ($p = 0.701$) and carbohydrate ($p = 0,406$).

Conclusion : Early menarch prevention booklet can improve the attitudes and knowledge of elementary school students
Keywords: early menarche prevention pocketbook; knowledge; attitude and diet.

Keyword : *Pocketbooks , Knowledge, Attitude, And Improvement Eating Patterns*



Formulation And Evaluation Of Milkfish (*Chanos Chanos*) Bone Gel On Remineralization Enamel White Spot Lesion

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ABSTRACT

Introduction: Dental caries is the highest dental health problem which destructs dental hard tissue. Dental caries prevention can be done by increasing remineralization to compensate the demineralization that occurs on the tooth surface. Milkfish bone is a waste product of fish processing industry that contains calcium and phosphorus. These contents are essential in the process of remineralisation enamel white spot lesion.

Aims: The objective of the research was to create the best formulation of milkfish bone gel and determine the effect of the application of milkfish bone gel on the microhardness and microstructure of enamel surface.

Method: The research method was an experimental laboratory using pre and post-test control group design. Milkfishbone was formulated into a gel using the combination of heating, grinding, filtering and mixing method. The research used sixteen maxillary premolar specimens divided into two groups: milkfish bone gel concentration 20% group and control group. The specimens were demineralised using phosphoric acid and given milkfish bone gel application. Surface microhardness was measured by using Vickers Microhardness Tester ASTM E92 and enamel microstructure evaluated using SEM.

Results: The research result showed that there were significant differences before and after the application ($P < 0,05$), and there were significant differences between groups ($P < 0,05$). Enamel microhardness increases significantly after milkfish bone gel application. An electron micrograph showed that milkfish bone gel application caused a decreased porous volume of the body of the lesion. These structure showed differences compare to control group.

Conclusion: It was concluded that milkfish bone gel has the potential as a natural remineralisation agent for teeth.

Keyword: *Enamel Microhardness, Enamel Microstructure, Milkfish Bone Gel, Remineralization*



The Effect Of Application-Based Diabetes Mellitus Diet Education Against Knowledge And Compliance Of Diets In Outpatients Of Diabetes Mellitus Type 2 At RSUD K.R.M.T Wongsonegoro Semarang

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ABSTRACT

Background: Diabetes Mellitus management consists of 4 pillars, namely education, medical nutrition therapy (meal planning), physical exercise and pharmacological intervention. The failure of Diabetes Mellitus patients in treatment is caused by various factors including not undergoing a good diet. The effort to increase patient compliance and awareness is by providing a complete, accurate and structured education about the therapy. Information and communication technology provides exceptional benefits in the field of medical informatics. Medical informatics applications such as web programming, desktop, SMS gateway and programming with pocket PC (Android) have started to be used to help the process of nutritional counseling.


Objectives: to determine the effect of application-based diabetes mellitus diet education compared to those who only received diabetes mellitus diet education using leaflets on dietary knowledge and compliance in Type 2 diabetes mellitus patients.

Methods: This research is an experiment with a research design that is Pretest-Posttest Control Group Design. Sampling was done by purposive sampling using inclusion and exclusion criteria. The study was conducted at the Outpatient Poly RSUD K.R.M.T. Wongsonegoro City of Semarang, from August to October 2019. Data were analyzed by Paired t test and linear regression test for dietary knowledge and compliance.

Results: The results of the study showed that application-based Diabetes Mellitus diet education was able to increase dietary knowledge but not to the dietary compliance of patients with confounding factors that had an influence on education and were significantly different ($p = 0,000$).

Conclusions and suggestions: Application-based Diabetes Mellitus diet education for outpatients at Wongsonegoro K.R.M.T Regional Hospital is able to improve dietary knowledge so that it can guarantee the quality of life for Diabetes Mellitus Patients. Hospital Institution.

Keywords: Nutrition Education, Application-Based DM Diet, Knowledge, Diet Compliance, Diabetes Mellitus.



**Development of Velva Combination Of Guava (*psidium guajava*)
And Purple Sweet Potato (*ipomoea batatas l. Poir*) with Low Calorie
Sweetener As A Functional Food Alternative**

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ABSTRACT

Background Guava are high in fiber and vitamin C and have good antioxidant activity. Purple sweet potato is a type of tuber that contains food fiber and a low glycemic index (GI) value thereby giving added value to this commodity as functional food. Natural antioxidant compounds can slow down, delay, or prevent oxidation. So that the combination of guava and purple sweet potato has the potential to be developed into functional food products.

Purposes This study aims to determine the effect of low-calorie sweetener types on the characteristics of organoleptic and physicochemical properties and functional substances of guava and purple sweet potato.

Methods The research method uses a Completely Randomized Design (CRD) with one type of low calorie sweetener (stevia, honey and sorbitol). Each treatment was carried out 2 times and 2 times analysis. The results of this study indicate that the nutrient content of selected velva based on TKPI that the energy value is 33.33 kcal, protein 0.41 gr, fat 0.1 gr and carbohydrate 7.93 gr. Organoleptic test results from 9 velva products combined with guava and sweet potato obtained the best product was VU-A2 treatment (addition of 7.5% sorbitol). The results of the analysis of nutrient levels (proximate test) per 100 grams of selected velva products contain 0.53% protein, 0.05% fat, 85.03% water, 0.25% ash, and 14.1% carbohydrates.

Results of physical analysis per 100 gr of selected velva products contain 11 TPT (% brix). While the results of the analysis of functional substance levels per 100 gr of the selected velva product contained 28.81 mg of IC 50 antioxidants, 75.01 ppm anthocyanin and 0.84% crude fiber.

Keywords: *Velva, Guava, Purple Sweet Potato, Low Calorie Sweetener*



Correlation of Obesity with Blood Glucose, Blood Pressure, And Cholesterol Level Among Women Prisoners

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ABSTRACT

Background Obesity is becoming a crucial health problems, since directly associated with several non-communicable diseases.

Objective This study aims to investigate the frequency of obesity among women prisoners and its relation to blood glucose, cholesterol level and systolic/diastolic blood pressure.

Method This research was cross sectional study, involving 170 women prisoners. Data collected were body weight, height, waist and hip circumference, blood glucose, cholesterol level, systolic and diastolic blood pressure. Body mass index, waist circumference and waist-hip ratio were used to determine the obesity. The subjects aged 27 – 51 years. Based on BMI, 17,1% were overweight, and 66,5% were obese. Moreover, 82,9% were abdominal obesity, and 92,9% were obesity based on WHR. Most of the subjects had normal blood glucose level, systolic and diastolic blood pressure.

Result There were relationship between body mass index and blood glucose level, systolic and diastolic blood pressure. Waist circumference were related with blood glucose level, systolic and diastolic BP, whereas WHR were related with blood glucose and diastolic BP. Cholesterol level was not correlated with BMI, WC, and WHR

Keywords : *Obesity, Body Mass Index, Waist Circumference, Blood Glucose, Blood Pressure, Cholesterol*





Molecular Identification of Lactic Acid Bacteria (LAB) Joruk Maman With 16S rRNA Genes

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ABSTRACT

Background Joruk maman is a traditional fermentation product, it is a special food in Riau Province, especially in Tanah Putih District, Rokan Hilir Regency and Kepenuhan Rokan Hulu District, made from maman plants. Joruk maman has been known to contain bacteria that have functional properties as probiotics.

Objective The purpose of this research is to identify and characterize the local LAB originating from Joruk Maman.

Method The sample of this study was Joruk Maman, taken from Rokan Hilir Regency. Characterization includes pathogenic nature, fermentation type, and physiological properties (amylolytic and lipolytic). Identification is done by the Polymerase Chain Reaction (PCR) method.

Results showed that lactic acid bacteria isolated from Joruk maman were not pathogenic. LAB from Joruk maman is homofermentative, able to break down starch (amylolytic) and fat (lipolytic) substrates. The results of identification with polymerase chain reaction (PCR) showed LAB in Joruk maman is *Lactobacillus plantarum*.

Keywords : *Joruk Maman, Probiotics, Lactobacillus Plantarum*





ABSTRACT

Background Rats are pest that can cause harm to health, economic, and agricultural fields. Rat repellent has been developed and tested in various studies. The main ingredient of common rat natural repellent is essential oil, which has stink smell for rats, plants are commonly contain essential oil, especially aromaticated plants Clove (*Syzygium Aromaticum*), Lime (*Citrus Aurantifolia*) Skin and Temulawak (*Curcuma Xanthorrhiza Roxb*) are aromatic plants that seems to be contain it.

Objective The aim of this study is to measure the effectiveness of the plants at sewer rat repellent. This study is an experimental research which designed as *one group pretest-posttest (pretest-posttest design)*.

Method The research held in researchen' s house located at Sagulung Kota, Sagulung, Batam. It's held on November 2017. The sampling technique is accidental sampling. The result shows that repellent ability of the plant clove, lime skin and temulawak when compared with control respectively are 100%, 53% and 57% in 5 days of research. The rats weight loss shows that, clove has the most repellent effect with 31% of weigth loss.

Results lime skin and temulawak are sespectively 25% and 27%. And when area test the result is mixed feed clove repellent not consumed by rat during treatment. For lime skin always consumed and temulawak only on the first day not consumed by rat. The conclusion is the clove was the most effective repellent with 100% ability from control parameter, 31% from the rats weigth loss and not consumed this mixed feed clove repellent.

Keywords : *Effectiveness, Repelensi, Rat.*



Care Dose 4d Software Application For Local Diagnostic Reference Level (Drl) Determination To Msct Imaging With Contrast Of Head, Thorax, And Abdomen In Rsu Haji Surabaya

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ABSTRACT

Background : MSCT has a high radiation dose for patient, to reduce that high dose, SIEMENS manufacturer made a software called CARE Dose 4D. As one of the radiation protections for patient, a dose indicator is arranged called Diagnostic Reference Level (DRL). The purpose of this study was to create a local DRL value in RSU Haji Surabaya as an efficient and optimal dose management..

Methods : The research is a cross sectional survey research with an observation approach. Data collection was carried out at Radiology Installation of RSU Haji Surabaya by recording data directly. Data recorded in the form of CTDIvol and Dose Length Product (DLP) values from MSCT examination with contrast on head, thorax, and abdomen would calculate DRL value of each examination.


Result : From data collection of CTDIvol and DLP values, it is known that the use of CARE Dose 4D application is able to reduce the radiation dose values of patients with different decreasing values in each patient. However in some MSCT patients with contrast in thorax and abdomen, the use of CARE Dose 4D application increases the value of CTDIvol and DLP in scanning the arterial phase. After collecting and calculating data the DRL value, the local DRL value of MSCT examination with contrast in RSU Haji Surabaya was 32 mGy for CTDIvol and 1448 mGy.cm for DLP on head examination, 8 mGy for CTDIvol and 907 mGy.cm for DLP on thorax examination, and 6 mGy for CTDIvol and 926 mGy.cm for DLP in abdomen examination

Conclusions : Based on these results, the local DRL value of RSU Haji Surabaya was obtained for the DLP value in MSCT head with contrast and MSCT thorax with contrast exceeding the national DRL value. The DLP value of MSCT abdomen with contrast is placed below the national DRL value. While the CTDIvol value of three examinations is below the national DRL value. .

Keywords: MSCT; Organ; DRL; CARE Dose 4D.

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Optimization Of Radiation Dose For Sacrum Bone Examination With Ap, Ap Axial And Pa Axial Projections

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ABSTRACT.

Background Sacrum bone examination projection is Anteroposterior axial with the direction of the beam 15 degrees to the *cephalad*, the posterior-anterior axial with the direction of the beam 15 degrees *caudal* and lateral to the direction of the perpendicular beam. Some practitioners take action to examine the sacrum bone with AP projections in the direction of the perpendicular beam. The radiation dose has a negative effect in the form of stochastic and deterministic effects. One factor in radiation dose is the distance between the source and the organ.

Objective The research aims to determine the examination projection that produces good information with minimal doses.

Method This is an experimental study with one shot post-test only. Samples in the form of radiographs were obtained from AP, AP Axial and PA axial projection assessed by the radiologist regarding the clarity of anatomic and the dosage was measured using TLD. Data analyzed by Friedman and Wilcoxon test with an error of 5%.

Results showed there were differences in anatomical information clarity radiographs on the AP, AP Axial and PA axial projections with p-value = 0.001. The best information obtained on PA axial projections. There are differences in radiation doses in the right ovary (p-value = 0.002), left ovary (p-value < 0.001) and Gonad (p-value < 0.001). The PA Axial projection produced the best information with a minimum dose.

Keywords: *Sacrum Bone, AP Projection, AP Axial, PA Axial, Anatomical Information, Radiation Dose*



Doodle Art 3d Model As An Effort To Reduce Patient Anxiety In Health Care Facility

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ABSTRACT

Background: Every individual who suffered health problems, will make every effort to overcome problems with the ill treatment to the health service facilities, but not all people dare to seek treatment to the health service facilities. It is caused by a feeling of fear or anxiety patients. One of the efforts made to reduce the patient's anxiety was to design health care facilities become more attractive not seem daunting. Design attractive environment in health care facilities is to provide a three-dimensional picture messages on the walls of the waiting room patients and / or examination room named "Doodle Art" as a means of health promotion while reducing patient anxiety.

Objective: Generate Doodle Art 3D models to reduce the anxiety of patients in health care facilities. **Method:** The method used in this research is the Research and Development (R & D). **Results:** 3D Art Doodle feasible as an effort to reduce the anxiety of patients in health service facilities 0.032. 3D ART Doodle effective to decrease patient anxiety level health in the health service facilities 0.000. **Conclusion:** Doodle Art 3D effectively lowers the anxiety level of patients seen from the difference between the average of 0.50 compared to the control group.

Keywords: Doodle Art 3D, Patient Anxiety





Image Quality of Whole Spine MRI Image in Different Concatenation Variation of T1WI TSE Sagittal

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ABSTRACT

Background Concatenation is used to prevent crosstalk when the distance between slices is close by using the optimal value. Whole spine MRI examination in health services uses the concatenation values 1,2 and 3.

Method This research is a quantitative research with an experimental approach. The study was conducted at Telogorejo Hospital SMC Semarang by using 10 samples with 3 variations of concatenation 1,2,3. Image quality analysis and optimal concatenation value will be analyzed using the Anova statistical test.

Results of the study showed that there was a difference in whole spine MRI quality of cervicothorakal SNR images there is a difference with significance ($p < 0.05$) except in the corpus vertebrae there is no difference with a value of 0.594. The cervicothorakal CNR has a difference in the spinal cord corpus, the intervertebral spinal cord corpus, the intervertebral foramen vertebrae, the vertebral-ligamentum flavum corpus and the spinal cord ligamentum. Thoracolumbal SNR is different except for the ligamentum flavum with a value of 0.111. Thoracolumbal CNR also had a difference in significance ($p < 0.05$) except for the corpus vertebrae-ligamentum flavum with a significance value of 0.191. The optimal concatenation value for whole spine MRI of Sagittal T1WI TSE sequence is 2.

Keyword : Whole spine MRI, concatenation, T1WI TSE Sagittal



Logic Design of Prototype Indonesia National Health Insurance Claim Verification Dashboard System For District Hospital in West Java

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ABSTRACT

Introduction: Since 2014 to 2019 the JKN program has been running, with the purpose is all Indonesian people have been covered by the national health insurance program. In fact Many hospitals are not ready for information system software, and there are also hospitals had been used information systems in their hospitals, but the information system running cannot display data and information about hospital cash flow, the cliams is payed, the pending claims, the claims is not eligible to payed and diagnosis of patients who are over cost. Facing such conditions

Aims: this study proposed a dashboard information system model that could help process and display the overall hospital service activities in a one-screen display (dashboard), becoming an information needed by stakeholders. This dashboard is expected to guarantee healthy cash flow. The method used in this research was a qualitative method by using the prototyping system.

Results: The result of this research is the dashboard information system design that processes and presents data in the form of visualization in a concise and easy to understand way.

Conclution: This information system are used to support the management of the relevant hospitals in the process of taking interventions in an effort to reduce costs.

Keywords : *Dashboard, Verification, Claim Indonesia National Health Insurance*



Designing of Information System on Antenatal Depression Detection

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ABSTRACT

Introduction: Depression is a major cause of disease burden worldwide in women of childbearing age and 5-10% of all pregnant women experience antenatal depression. depression in pregnancy is associated with the incidence of stillbirth, premature, low birth weight, asphyxia, and congenital abnormalities in new-borns. Although antenatal depression has a very detrimental effect, anxiety and depression during pregnancy are still less detected so that the treatment has not been maximized.

Aims: The purpose of this study is to develop model of antenatal depression detection.

Method: This research will design an antenatal depression detection information system based on Android mobile using prototyping method. An analysis of the needs of antenatal depression detection information systems is carried out by interviews, observations, and literature studies aimed at producing an effective and efficient system. Antenatal depression detection test uses the Edinburgh Postnatal Depression Scale (EPDS) questionnaire consisting of 10 questions.

Results: The results of this study is the form of antenatal depression detection information system design in android and web based.

Keywords : *Information System, Antenatal Depression, Model*





Analysis Of Image Quality And Information Difference Between T2WI Fast Recovery Fast Spin Echo And T2wi Propeller At Examination Of Axial Mri Brain

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ABSTRACT

Background: MRI Brain is needed by patients who are calm during the examination. MRI with a long time can cause the process of repeatedly taking pictures due to the movement of the patient. One of the protocol recommendations on brain MRI examination using Fast recovery fast spin echo (FRFSE) aims to obtain a pathological picture, also enhances the healthy, effective tissue increase the weighting level of T2 and increase SNR by speeding up the scanning time. While for PROPELLER is used to minimize the occurrence of motion artifacts and get the desired picture. The purpose of this study was to determine the differences in image quality and information and to know better between using T2WI FRFSE and T2WI PROPELLER on an axial MRI brain examination.

Methods: This type of research is quantitative research with an experimental approach. The study was conducted at the Yogyakarta Panti Rapih Hospital using a sample of 10 patients and 3 radiologists as respondents. Data analysis was performed by the Wilcoxon test to determine the quality and information of anatomical images better than the two sequences seen from the mean rank value, while to find out information on artifact images using the Mc Nemar test.

Result: Statistical results prove that there is a difference between the use of T2WI FRFSE and T2WI PROPELLER sequences on SNR image quality ($p = 0.005$) and CNR ($p = 0.013$) with ($p < 0.05$) on all organs assessed. There are differences in anatomical image information with a significance value of 0.012 ($p < 0.05$) and artifacts with a significance value of 0.031 ($p < 0.05$). The mean rank overall image quality, the T2WI FRFSE sequence has a mean rank value higher than T2WI PROPELLER, but the mean rank results of information on white matter anatomy, gray matter and T2WI PROPELLER artifacts have a higher mean rank value than T2WI FRFSE.

Conclusion: T2WI PROPELLER produces better image information than T2WI FRFSE.

Keywords: MRI brain, T2WI FRFSE, T2WI PROPELLER



The Urine Profile and Uric Acid Levels in Type 2 Diabetes Mellitus Patients

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ABSTRACT

Introduction: Type 2 diabetes mellitus accounts for about 90% of all diabetes cases worldwide. Type 2 DM is caused by the body's inability to respond well to insulin or called insulin resistance. Insulin resistance causes hyperglycemia and hyperinsulinemia which results in decreased uric acid excretion function in the kidney tubules so that there will be an increase in uric acid in the blood or hyperuricemia.

Method: Type of research including descriptive with the cross-sectional approach. research respondents were 24 people, uric acid levels were examined with a TMS 50i Superior device. The data obtained is processed and presented in the form of diagrams and percentages.

Results: The highest hyperuricemia is based on the characteristics of the respondents, those are above 55 years old (25%), female sex (25%), high blood pressure (25%), and exercise activity 1x / day (21%). Of the 24 respondents, 14 people (58.3%) had normal uric acid levels and 10 people (41.6%) had hyperuricemia, with an average female uric acid value of 5.54 mg / dL and male of 6, 48 mg / dL.

Conclusion: Urinary profile of type 2 DM patients with almost 50 % of respondents increased urine leukocyte parameters, urinary ketones, urine bilirubin, urine protein, and urine glucose.

Keywords: *Type 2 DM, Uric Acid, Urine Profiles*





Stabilizing 30 ppm Iodine Level In Iodized Salt: Its Effect On Iodine Status And Thyroid Function

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ABSTRACT

Background: Iodine is a major component of thyroid hormones. Both iodine deficiency and iodine excess can result in an increased prevalence of thyroid disorders. Salt iodization consider an effective way of ensuring iodine sufficiency, then optimizing thyroid function, preventing hypothyroidism and also hyperthyroidism. But there still a problem with a wide variation range of iodine level in household salt.

Objective: Analyze the effect of stabilizing 30 ppm household iodized salt for six months on iodine nutrition status and thyroid function. Effect of previous salt iodized level and iodine nutrition status were also considered.

Method: This was a one group pre and post test experiment study, with 78 preschool children in Pituruh, a replete iodine area in Purworejo. Iodized salt at 30ppm were given for 6 months as intervention. Thyroid function with TSH and FT4 level as indicators were assesed at 0 and 6 months intervention. UIE as iodine nutritional status indicator were assesed at 0, 3 and 6 months intervention. Household iodized salt level before intervention were assesed. Paired sample t test, Anova repeated measures, and linear regression were used to interpret the result.

Results: Before the study, 51.9% household had insufficient level of iodized salt, and 26.9% had high level of iodine in household salt (>50ppm). Risk of excess (UIE >300 μ g/L) found among 30.3% and 17.1% deficient (UIE <100 μ g/L). After 6 months intervention, there were a significant enhancement of TSH level ($p < 0.05$) and significant decrease in FT4 level ($p < 0.05$) of preschool children. All still in normal range of FT4, but increase of subclinical hypothyroidism cases found after intervention. Means of UIE also increase (268.2 μ g/L vs 361.1 μ g/L). Linear regression showed previous iodine level in household salt and UIE level at 6months were significantly related to alteration of TSH level. Subclinical hypothyroid found increase. Main effect of deficiency status showed UIE changes in the group of subjects who were initially deficient, higher than those in which iodine consumption was initially more ($F = 12.82$; $p = 0.000$). The main effect of the change in UIE did not differ between groups of subjects whose iodine levels in household salt were initially sufficient and insufficient ($F = 4.47$; $p = 0.127$).

Conclusion: This research were taken in an area previously found as endemic, and then intensely intervened by the IDD elimination program. After 6 months intervention, there were significant alteration in FT4 and TSH level. Subjects initially had deficient level of UIE had higher level of increase in UIE level. UIE level at 6 months and previous level of iodine level in household salt related with alteration of TSH level. The increse of subclinical hypothyroidism along with the increase of UIE level showed that there were possibly The Wolff-Chaikoff effect, an effective means of rejecting the large quantities of iodide and therefore preventing the thyroid from synthesizing large quantities of thyroid hormones.

Keywords: *Its Effect On Iodine Status, Thyroid Function*



The Combination Of Eggshells Dose And Sugar Powder (Catebugu) In Eradicating Cockroaches

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Abstract

Introduction: Cockroaches are repulsive animals, cockroaches are also one of the vectors of disease that must be controlled. Some diseases which transmitted through cockroaches include dysentery, cholera, diarrhea, typhus, and etc. One way that can be done is to use a combination of Catebugu doses (eggshell and sugar powder) in killing / eradicating cockroaches.

Objective: The study aims to determine the combination of Catebugu doses in eradicating cockroaches.

Method: This study was an experimental study using the Post-test only design, which is by combining Catebugu doses of cockroaches. Population *Periplanata Sp*) and samples were 150 cockroaches. The data that has been obtained will be processed manually presented in the form of a frequency distribution table and analyzed descriptively and statistical tests with Anova and List of Significant deferences (LSD).

Results: The study result of the combination of egg shells and powdered sugar in eradicating cockroaches, the fastest average time was 15 hours 33 seconds and the longest average time was 16 hours 7 minutes. Other combinations of natural ingredients are needed that can kill cockroaches in a relatively short time with a low level of danger.

Keywords: *Combination, Eggshell and Sugar Powder*





Pulmonary Function Among People Exposed To Particulate Matter From Large Construction Project In Batang Districts Central Java

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ABSTRACT

Background : Researches showed that particulate matter (PM) could affect on pulmonary function. People lived near large construction project were exposed to PM from construction activities. Center Of Public Health (Puskesmas) data show significant case increase of acute respiratory syndrome during the project. This research aim was to analyze related factors of pulmonary function among people near large construction project in Batang District, Central Java.).

Method : We investigate 200 participants which live near the projects. Data was collected through a self administered questionnaire that was filled-in by participants themselves. Spirometer was used to collect pulmonary function test data.

Results : 56% of participants are productive age (20-40 yrs). Normal weight was found in 70% of participants. Researches indicated 8% were in severe pulmonary disorder. There is significant correlation between age and pulmonary function ($p < 0,025$). Body mass index is not related to pulmonary function ($p > 0,53$).

Conclusion: This study found that small group of people were indicated suffer from dust exposed pulmonary disorders. Local health authorities should take some rapid actions due to prevent severe effect of PM from large construction project

Keywords : *Particulate Matter, Pulmonary Function, Construction*



Psychosocial Problems of Pregnant Women With HIV in Yogyakarta

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ABSTRACT

Background: Pregnant women with HIV are not only faced with physiological problems due to exposure HIV virus, but are also faced with social problems, such as stigma and discrimination. Stigma and discrimination can increase the psychological burden of pregnant women and hinder the success of prevention of mother to child transmission of HIV.

Objective: to explore the psychosocial problems of pregnant women with HIV in Yogyakarta.

Methods: This study used a qualitative research method with a case study approach. Data collection was carried out by in-depth interviews of 10 mothers who had experienced a pregnancy with HIV and 5 informants consisting of families, close friends of pregnant women with HIV and administrators of IPPI DIY. Data validity used source triangulation and data analysis used content analysis.

Results: The results of the study found four themes, namely the discrimination from health services, being excluded from work due to HIV status, differentiation of bathrooms, worrying about discrimination from family and friends.

Conclusion: Discriminatory practices from environment of pregnant women with HIV influenced negative views about patient self-esteem and health services. Therefore, it is necessary to increase the capacity and support of the environment to increase self confidence of pregnant women with HIV.

Keywords: *Problems, Psychosocial, Pregnant Women, HIV*



Online Mental - Health Screening Design Among Junior and High School Through Strength and Difficulties Measure

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ABSTRACT

Background Mental disorders are a major cause of disability and death throughout the world every year. Indonesia has low mental health and is mostly experienced by adolescents. Indeed, recognizing the signs and symptoms of stress in adolescents early is a preventive measure before the condition worsens and causes many losses. Mental health service programs have so far been limited, both in schools and in health care centers.

Objective this study proposes a mobile application model that can be an early detection tool for adolescent mental health and information sharing between adolescents and teachers or health workers. The screening results will be followed up by the health service if a problem is found.

Method: This research builds a prototype of the mobile application to the modeling stage. The model is produced from the system requirements analysis, the model presented here is in the form of; Context Diagram, Entity Relational Diagram (ERD), Relational Diagram Table (TRD), Flow Chart and User Interface Design. Early mental health detection uses the Strength and Difficulties Questionnaire (SDQ). Data collection is done by interview, observation and study of literature.

Conclusion: This information system can be used by primary health care and implemented in schools, making it easier for adolescent mental health screening.

Keywords: *Mental Health, Screening, Mobile Application, Junior and High School, Strength and Difficulties Questionnaire (SDQ)*





Thyroid Function And Lipid Profile On The Hormonal Contraceptives Users With Goiter

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ABSTRACT

Objective Clinical studies have shown that estrogens and progestogens contained in hormonal contraceptives influence serum lipid and lipoprotein concentrations in varying ways depending on their doses, proportions and potencies. Hormonal contraceptives can affect thyroid hormone which play role in basal metabolism, energy expenditure and weight.

Objektiv This study was performed to know the effect of hormonal contraceptives on the thyroid hormone, and lipid profile.

Method Cross-sectional study of 83 women with goiter (19 women taking hormonal contraceptives and 64 women taking non hormonal contraceptives) who came to IDD research and development clinic. Blood were collected and examined free T4, TSH, total cholesterol, LDL and HDL level.

Results showed that the levels of fT4 ($1,66 \pm 1,55$ vs $2,37 \pm 2,35$, $p=0,761$ and TSH ($1,05 \pm 1,33$ vs $0,96 \pm 1,05$, $p=0,896$) were lower among women taking hormonal contraceptives compared to non hormonal contraceptives, but not statistically significant. The level of triglyceride ($115,26 \pm 68,25$ vs $98,92 \pm 45,42$, $p=0,227$), LDL ($121,26 \pm 32,94$ vs $102,23 \pm 33,71$, $p=0,033$) and total cholesterol ($183,11 \pm 39,52$ vs $168,30 \pm 40,26$, $p=0,161$) were higher in women of group HC comparative with NHC group, and the HDL ($51,11 \pm 6,94$ vs $53,61 \pm 10,04$, $p=0,224$) level was lower among hormonal contraceptive users compared to non hormonal contraceptives.

Keywords : Hormonal Contraceptive, Lipid Profile, Thyroid Functions



Self-Efficacy, Family Support And Toothbrushing Practice Of Primary School Students

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ABSTRACT

Background: School age is a critical period because at this time children begin to develop habits that usually tend to persist into adulthood. One of them is the habit of maintaining oral hygiene. The behavior of Indonesian children in maintaining oral health is still low. The purpose of this study was to prove the relationship between self-efficacy and family support for toothbrushing practice of elementary school students.

Method: The population in this study was fifth grade students of primary schools in the working area of Kedungmundu Health Center, Semarang City, aged 10-12 years. Measuring instruments used were the Self-Efficiency Scale, the Family Social Support Scale and the Teeth Brushing Scale.


Results: Data analysis showed that the double correlation coefficient between self-efficacy and family social support with tooth brushing was $R = 0.837$ with a significance level of 0,000 ($p < 0.01$). While the product moment analysis between self-efficacy variables with tooth brushing action showed $r = 0,836$ with a significance level of 0,000 ($p < 0.01$), tooth brushing action with family social support was $r = 0.418$ with a significance level of $p = 0.002$ ($p < 0.01$).

Conclusion: Self-efficacy and family social support have a very significant relationship with the toothbrushing practice. The higher the self-efficacy and the higher the family's social support, the better the toothbrushing practice.

Keywords: *Self-Efficacy, Family Support, Toothbrushing*

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The Relationship Between Intrinsic And Extrinsic Motivation In Tooth Brushing Against Index Debris Scores On Students At Sdn Sendangmulyo 02, Semarang City

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ABSTRACT

Background Caries are one of the serious health problems in school-age children especially elementary school. Dental caries are one of which is influenced by the behavior of people in maintaining dental and oral health. Public behavior of dental health, one of which is influenced by a person's motivation in the habit of brushing teeth.

Objective The aim of the study was to analyse intrinsic and extrinsic motivational relationships in brushing teeth against the index debris score and tooth brushing skills at the students of SDN Sendangmulyo 02, Semarang in 2019.

Method The types of research used are analytical surveys using questionnaires with cross sectional research plans. The samples in this study amounted to 53 samples and used purposive sampling techniques. Data analysis is conducted with the analysis of univariate and bivariate, test the relationship using the test of Spearman rank.

Result showed there was a link between intrinsic motivation and extrinsic students in tooth brushing against index debris scores and tooth brushing skills, where intrinsic motivational variable statistical test results show the value of $p\text{-value} = 0.489$ ($p\text{-value} > 0.05$) and extrinsic motivation indicating the value of $p\text{-value} = 0.095$ ($p\text{-value} > 0.05$). Conclusion: There is no relationship between intrinsic motivation and extrinsic motivation to the index debris score in the students of SDN Sendangmulyo 02, Semarang City.

Keywords : *Motivation, Index Debris Score, Tooth Brushing Skills*



Antibacterial Activities From Miswak Extract (*Salvadora Persica*) In Growth Of Actinomyces Bacteria

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ABSTRACT

Background Dental caries is a major problem of dental disease, a chronic process that begins with the dissolution of enamel minerals, as a result of disruption of the balance between enamel and its surroundings caused by the formation of microbial acids from food. This condition occurs because the bacterial flora of the mouth in the form of plaque, becomes the main condition for the formation of caries. Certain types of bacteria in relatively large numbers, such as *Streptococcus mutans*, are the initial cause of caries. Not only is *Streptococcus mutans* found in the mouth, *Actinomyces* bacteria also play a role in abscess formation.

Actinomyces is the most dangerous type of *Staphylococcus* bacteria because it can cause pus. This bacterium can be inhibited growth with natural ingredients. The use of siwak wood (*Salvadora persica*) has been known since centuries ago, siwak wood sticks can improve oral hygiene and health because of its mechanical components in the form of fibers of siwak wood sticks and the chemical components they contain. Research on analyzing the content of dried siwak wood trunks by extraction using ethanol 100%, 50%, 25%, 12.5%, 6.2%, and 3.1%. This study wanted to find out the Minimum Inhibitory Concentration (MIC) of siwak extract solution on the growth of *Actinomyces*, shown in the inhibition of germs with a minimum concentration of 6.2%, 12.5%, 25%, up to 50% and 100%.

The ability of siwak extract solution as an alternative antibacterial agent that can be developed as a hygienic and effective oral cleaning tool commodity in preventing caries.

Keywords: Caries, *Actinomyces*, Miswak, Inhibitory,



The Relationship Between Periodontal Disease And Life Quality Of The Pkk (Pembinaan Kesejahteraan Keluarga) Ladies Group From Kelurahan Srandol Wetan Rw 01 Semarang City

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ABSTRACT

Background The prevalence of periodontal disease reaches more than 82% in young people and more than 50% in adults. Age and illnesses suffered by each person can decline in various ways, which affect their quality of life. Treatment for periodontal disease is complete plaque control accompanied by root scaling and planning and anti-bacterial therapy.

Objective The purpose of the study was to analyze cases of periodontal disease related to quality of life.

Method This type of research is a survey based on the nature of correlational research, with this quantitative descriptive method using a cross-sectional design with an observational analytic approach. The object of this study was 250 mothers from PKK RW 01 in Srandol Wetan Village, Semarang City. sampling technique using non probability sampling with a purposive sampling method or sample consideration based on the characteristics or characteristics of the population that have been known previously Data analysis will be done using SPSS software, to determine factors that affect quality of life / status of disability, see the effect between two variables using the Spearman rank Correlation test.

Results showed a significant relationship between periodontal disease and quality of life in PKK RW 01 mothers in Srandol Wetan, Semarang City, the data showed quality of life and gingivitis, as well as quality of life and periodontitis with crosstabulation test and spearman rank correlation P-value 0,000 with a significant 0.01 as for the research data as follows: Respondents have a condition of gingivitis with severe categories of quality and quality of life with as many as 50 respondents (63.3%). Respondents have a periodontitis condition with severe categories and quality of life with poor categories of 48 respondents (60.8%).

Keywords: *Periodontal*



Revitalization Ukgs Through "222 Model" As A Strategy To Achieve Indonesia Free Caries Teeth In 2030

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ABSTRACT

Background: The tooth brushing program that has been implemented so far has not been able to change the elementary school students' brushing behavior, indicated by an OHI-S value of 1.3; DMF-T = 1.09, def-t = 1.78, the condition is below the national target of 2010. Improvements in the behavioral aspects remain to be done to improve the dental health status of elementary school students. One of the changes in behavior influenced by information. Information will be saved as much as 20% if delivered through visuals, 50% if delivered through audiovisual media and 70% if implemented in actual practice.

Research Objectives: Generate alternative changes in tooth brushing behavior through audio visual models of tooth brushing on elementary school students and analyze their effectiveness.


Method: Research and Development (R&D). The model test sample was divided into 2, group model 222 (intervention), and brush teeth 21 days (control).

Research Results: The results of expert validity show that 222 models are suitable efforts to form the teeth brushing behavior of elementary school children ($p = 0.020$). Model 222 is more effective in increasing teacher knowledge, attitudes and skills than brushing teeth 21 days (control) $p = (0.002)$. The 222 model is more effective in increasing the knowledge, attitudes and skills of small doctors than brushing teeth 21 days (control) p value < 0.05 , while the debris score is no difference between the two groups p value > 0.05 but the mean value in the intervention group is more big. The 222 model is more effective in increasing knowledge, attitudes, skills, and reducing debris scores of elementary school students compared to the 21 day program (control) $p = 0,000$.

Conclusion: from the results of the research can be concluded that 222 "model effectively shaped the tooth brushing behavior of teachers, minor doctors and the skills of brushing teeth and dental hygiene of students in school.

Suggestion: Develop a model of inculcating habits of maintaining oral health by involving parents.

Keywords: 222 Models, UKGS Programe



The Innovation of Snakes and Ladders Game as Local Wisdom for Knowledge Enhancement and Changes in Behavior of Oral Health in Children in Orphanages

Background Health education can be done in various ways one of them by using the principle of learning while playing, students while learning or solving problems is done in an atmosphere that is fun, for example with Snakes and Ladders. The traditional game of snakes and ladders is an educational game where in addition to playing children can also learn but have begun to be abandoned because it is less interesting and monotonous.

Objective The purpose of this study was to create an innovative design of the snakes and ladders game that serves to increase knowledge about oral health.

Method This research is a *Quasi-experimental design* with *Pre-Post-Test control group design*. The sample is elementary school-age children at the Al Barokah Orphanage. 17 children became the control group and 17 children as a neutral group. The independent variable is the Snake Game Innovation Ladder dependent variable knowledge and changes in dental health behavior, with an instrument in the form of a questionnaire as many as 25 questions ordinal scale scores: Good: results 76% - 100%, Fair: results 56% - 75%, Less: results > 56 % pre-test and post-test. The most pre-test results with enough knowledge categories are 22 respondents (64.7%), the final knowledge score (Post Test) is the most with a good knowledge category 26 respondents (76.4%). Mann Whitney's statistical test results there are differences between the experimental and control groups on knowledge of oral health with a value of $0.02 < 0.05$.

Result statistical test results *Wilcoxon Test* there are differences between the *Pre-test* and *Post-test* experimental group with a value of $0.00 < 0.05$ and a control group with a value of $0.00 < 0.05$. statistical test results *Mann Whitney* there are differences between the experimental and control groups on knowledge of oral health with a value of $0.02 < 0.05$.

Keywords: *Snakes and Ladders Game Innovations, Knowledge and Behavior of Dental Health Dental*



Complementary Therapy: Cupping Of Headache

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ABSTRACT

Background: Cupping is expected to be an alternative treatment to eliminate or reduce headaches without side effects. Based on available evidence shows cupping therapy is an effective treatment for headaches.

The aim of this study was to assess changes in pain scale before and after cupping therapy and finally to evaluate complementary therapy: Effectiveness of cupping in dealing with various complaints related to headaches.

Methods: This study uses quasi-experimental design with one group pre-test and post-test without a control group. Data collection was carried out by classifying the scale of headache using a verbal description scale.

Results: the results of the analysis with a value of $p = 0,000$, mean $p < 0.05$, this shows the results of the hypothesis there is an influence or difference in the intensity of headaches from a high scale to a lower scale. The respondent's pain scale before being treated because of the intensity of severe pain 14 respondents 3 decreased to moderate pain (21.4%). and light 11 (78.6%). Respondents with moderate pain intensity 16 after treatment decreased to mild 12 (0.75%) and no pain 4 (0.25%).

Conclusion: Cupping therapy has the effect of reducing headaches, neurotransmitter regulation and the action of the hormones Serotonin, Dopamine, and Endorphin and Achetylcholin.

Keywords: *Complementary Therapy: Cupping, Headaches.*





Counseling Module Of Baby Growth And Development For Posyandu Cadres

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Abstract. Early stimulation, detection and intervention of children's growth and development are needed at a critical time in a comprehensive and quality manner. Coaching growth and development of children requires partnerships from various part, including families, health workers and Posyandu cadres. The optimization of posyandu activities including registration, weighing, medication/ health services, supplementary food and counseling, can help improve children's health status. Health counseling can be done by health workers or posyandu cadres, but counseling activities are often not carried out due to limited knowledge of cadres and no counseling media. The aim of this research is to develop a baby growth and development counseling module for Posyandu cadres. The research design used is qualitative research with the type of research and development. This research was conducted in the working area of Puskesmas Lapai Padang. The research was carried out from February to November 2018. Participants in this study were Posyandu cadres in the working area of Puskesmas Lapai Padang, child nursing experts, health workers at Puskesmas Lapai (doctors, nurses, midwives holding child health programs and nutrition experts). Data collection by indepth interview and observation. Data analysis was performed using techniques content analysis. The results obtained by the baby growth and development counseling module as a guide for posyandu cadres in providing counseling to the baby's mother. This study recommends testing the effectiveness of this module in a wider group.

Keywords: *counseling module, growth, development, baby, posyandu cadre*





Effect Of Pineapple Juice On Decrease Of Dysmenorrhea Pain In Adolescent Girls In Midwifery Dormitory Of Health Polytechnic

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ABSTRACT

Background: Dysmenorrhea is a menstrual pain that can interfere daily activities. The incidence of dysmenorrhea in the world is huge. On average more than 50% of women in every country have dysmenorrhea. While in Indonesia the figure is estimated 55% productive women are tormented by dysmenorrhea. Non pharmacologic handling of P ineapple Fruit Juice can reduce dysmenorrhea.

Objective: To determine the effect of pineapple juice on the decrease of dysmenorrhea pain in adolescent girls in midwifery dormitory of health polytechnic.

Methods: The study used pre experiment method with one group pretest-posttest approach. The technique of sampling by purposive sampling with the number of samples as many as 32 adolescent girls who experience dysmenorrhea. Respondents were given intervention of pineapple fruit juice 1 time with dose 0,41 g/KgBB. Assessment of the effect of pineapple juice on dysmenorrhea pain was performed after 2 hours of intervention. Dysmenorrhea levels were measured using Numeric Rating Scale (NRS) and statistical tests with Wilcoxon test.

Result: The average rate of menstrual pain before given pineapple juice is 5.59 and after pineapple juice is 2.56. The result of the research using Wilcoxon test obtained significant value 0.000 ($p < 0,05$).

Conclusion: There is an influence of pineapple juice on the decrease of dysmenorrhea pain in adolescent girls in midwifery dormitory of health polytechnic.

Keywords: *Pineapple juice, Dysmenorrhea, Adolescent girls*



ANATOMICAL IMAGE INFORMATION ON CERVICAL SPINE RADIOGRAPHY : A COMPARATIVE STUDY ON TWO OBLIQUE PROJECTIONS

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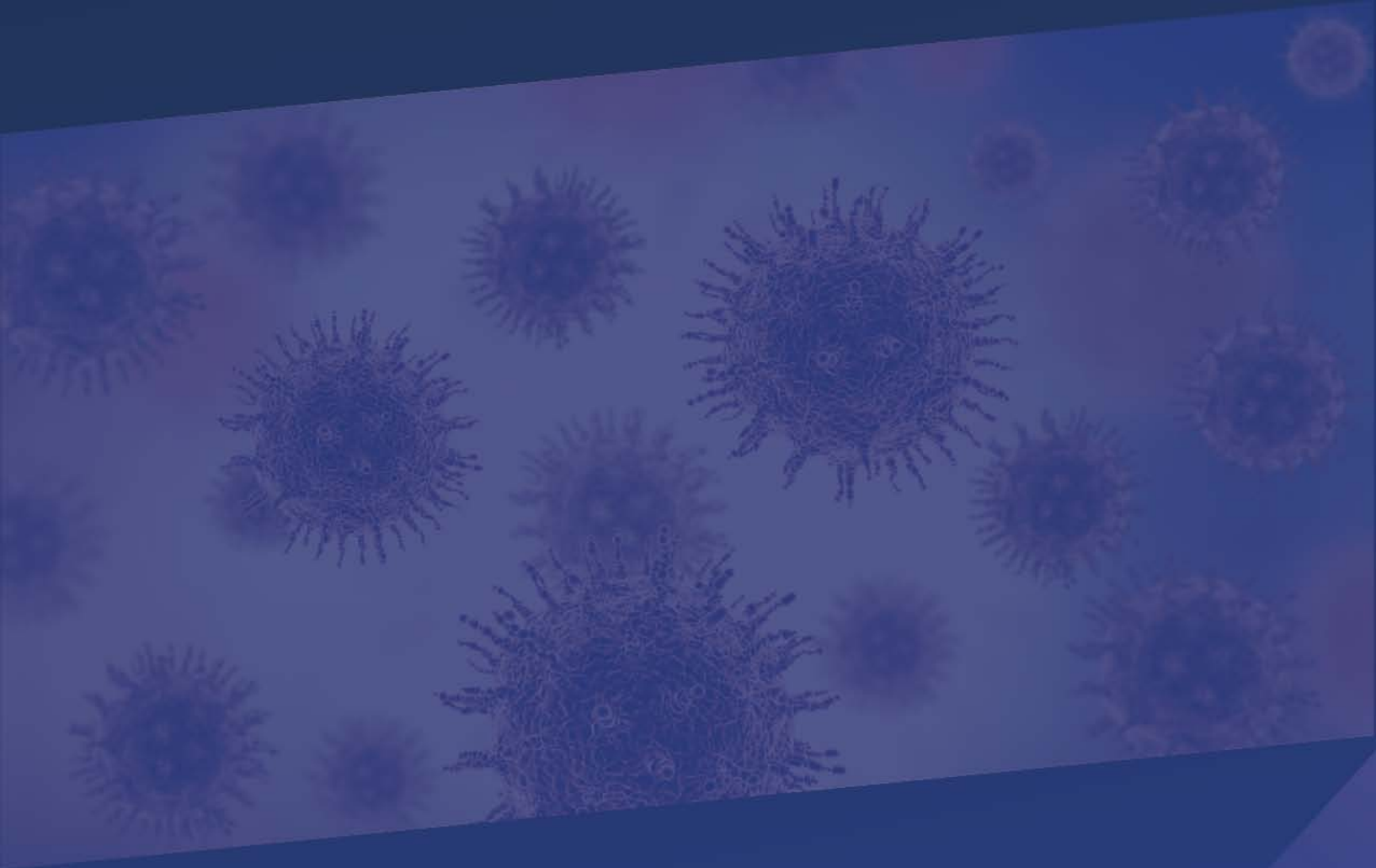
Background: Oblique projection of cervical spine radiography is used to support diagnosis in radiculopathy cases. Oblique projection can be performed with two techniques: anteroposterior oblique and posteroanterior oblique. Radiosensitive organs around the exposure area are less exposed on posteroanterior oblique projection than on anteroposterior oblique projection, but the image quality is potentially reduced due to longer object to image receptor distance (OID). This study aims to compare the anatomic information on anteroposterior oblique and posteroanterior oblique projections cervical spine radiographic images.

Methods: This is an experimental research. Radiographic images were made with anthropomorphic radiographic phantom (human bones covered by resin based structure). Phantom was positioned 45° anteroposterior oblique and 45° posteroanterior oblique. The exposure factor were 80 kV, 16 mAs, and a 180 cm SID using Computed Radiography. The image informations (intervertebral foramens, vertebral bodies, intervertebral disc spaces, posterior arches, and pedicles) were assessed by two experts. The assessment criteria were: 1 (visible), 2 (detail), 3 (clear sharp detail), adopted from “The European Guidelines on Quality Criteria for Radiographic Images”. Data were analyzed using the Mann Withney Test.

Results: The agreement level between two experts was high (K=0.78). There were no significant differences in the visualization of intervertebral foramens (p value > 0.05), vertebral bodies (p value > 0.05), intervertebral disc spaces (p value > 0.05), and there were significant differences in the posterior arches (p value < 0.05) and pedicles (p value < 0.05). Both projections provided “clear sharp detail” visualization of Intervertebral foramens (100%) and vertebral bodies (100%); “detail” on intervertebral disc spaces. Posterior arches were visualized “clear sharp detail” on posterior oblique projection (100%) and “detail” (100%) on anterioposterior oblique projection. Pedicles were visualized “clear sharp detail” (100%) on anteroposterior oblique projection and “detail” (100%) on posterior oblique projection.

Recomendations: Cervical oblique radiographic examination should be optimized by using posteroanterior oblique projection.

Keywords: cervical spine, radiography, oblique projection, anatomical image information



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