Theme: “Evidence-based Practice in Health Science”

Malang, East Java - Indonesia
4th - 5th October 2017

1st HEALTH SCIENCE INTERNATIONAL CONFERENCE
# SCHEDULE – Day 1

**DATE:** OCTOBER 4, 2017  
**VENUE:** CONFERENCE HALL, SWISS-BELINN HOTEL, MALANG

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Assalamu’alaikum Wr Wb

Excellencies, Distinguished Delegates, Ladies and Gentlemen, Good morning. It gives me great pleasure to extend you all a very warm welcome on behalf of University of Muhammadiyah Malang and to say how grateful we are to our keynote speakers who have accepted our invitation to convene the 1st Health Science International Conference, here in Malang, Indonesia.

The University of Muhammadiyah Malang is a private university which was founded in 1964, and our research and education community is 25000 students and 3000 employees strong. It is an opportune time to renew contacts and discuss problems of mutual interest with colleagues from different healthcare professionals, academics, and researchers. It is a gratifying to note that the agenda of the Conference covers wide range of very interesting items relating to the field of Medical and Health Sciences.

I hope during this annual meeting, all participants will positively contribute and exchange information and also knowledge to other healthcare professionals in order to improve the quality of health care. I believe that this conference will have positive impact for delivering and formulating evidence-based practice in the field of health science in Indonesia. I wish all the delegations in blessing, healthy and full with happiness. I also hope that the 1st Health Science International Conference annual meeting will work smoothly and success. I look forward to a productive and thought-provoking meeting.

Wassalamu’alaikum Wr. Wb
Assalamu’alaikum Wr Wb

Good morning Distinguished Guests, Speakers, Colleagues, Ladies and Gentlemen,

On behalf of organizing committee, I welcome all of you to this special event to celebrating our scientific annual meeting of the first Health Science International Conference in Malang, East Java, Indonesia, from 4 to 5 October 2017.

Today’s conference on ‘Evidence-based Practice in Health Science’ paves the way to important future developments in the health care professionals. I am so pleased to see many colleagues, professors, students. To my knowledge, this is to be our Faculty first conference where you can meet colleagues from your own specialty area, but you can also meet with your colleagues from other health professionals. It also provides the premier interdisciplinary forum for medical, public health, psychology, pharmacy, nursing, physiotherapy, midwifery practitioners and educators to present and discuss the most recent innovations, trends, and concerns, practical challenges encountered and the solutions adopted in the field of Medical and Health Sciences. This is also an outstanding opportunity to share medical and health science research experiences with national and international experts and delegates.

Throughout this conference, I ask that you stay engaged and keep us proactive. We are looking forward for your valuable contributions to this conference. Please feel free to ask questions to committee members. We are here to serve you.

Thank you. Have a wonderful day.

Wassalamu’alaikum Wr. Wb
THE 1st HEALTH SCIENCE INTERNATIONAL CONFERENCE
“Evidence-based Practice in Health Science”
4th – 5th October, 2017

KEYNOTE SPEAKERS

Prof. dr. hab. N. med. Kinga Barowicz-Reutt
She is a Professor in Department of Pathophysiology, Lublin Medical University. She completed her professor degree in Department of Pathophysiology, Lublin medical university. Professor Kinga has academic awards and distinctions as Minister of Health and Social Care Award on Scientific Achievements. She also has Rector’s Science Award (Medical University of Lublin). Professor Kinga has 206 articles in refereed journals, 1024 citation index. She is Alternative Member of The European Medicine Agency (London), Member of Pharmacological Commission, Physiological Sciences Committee, Also Member Of Neurobiological Committee, Polish Academy Of Sciences.

Associate Professor Su-Ying Fang, PhD
Su-Ying Fang is an Associate Professor from Cheng Kung University. Her specialty is in women health, breast cancer, surgical nursing, treatment decision making, and body image. Su-Ying Fang educational background are Master of Science, Department of Nursing, National Taiwan University. Su-Ying Fang completed her PhD at Institute of Allied Health Sciences, National Cheng Kung University, Taiwan. Her publications about validation of the modified Chinese cancer survivor’s unmet needs (CaSUN – C) for women with breast cancer, difference in cancer patients analgetics adherence and their related outcomes of pain management cancer nursing, fear of recurrence as a predictor of care needs for long term breast cancer survivors, etc.

Professor Roland J. Pieters.
Roland Pieters studied organic chemistry at the University of Groningen, the Netherlands (MSc. 1990) where he worked with Prof. Ben Feringa (Nobel Prize chemistry 2017) and also as an exchange student at Trinity university in San Antonio (USA). He completed his Ph.D. at MIT with Prof. Julius Rebek Jr. in 1995 and was an NWO Talent post –doctoral at the ETH-Zurich with Prof. Francois Diederich. After another post doctoral Stay (University og Groningen) he joined Utrecht a fellowship from the Royal Netherlands Academy of Arts and Sciences and coordinated the EU project POLYCARB. He became an associate professor in 2005, obtained a VICI grant in 2008, and was promoted to full professor in 2010. His current research interests at the department of chemical Biology and Drug Discovery are directed towards glycodrugs, by studying the interference with protein-carbohydrate interactions using multivalent systems of varying architectures including those with rigid spacers, for targets such as viral and bacterial adhesion proteins and toxins, galectins and glycosidases. Furthermore his group uses glycol- and peptide-microarrays in chemical biology and drug discovery e.g. on O-GlcNAcylation.

Yoyok Beti Prasetyo, M.Kep., Sp.Kom
He is Dean Faculty of Health Science, University of Muhammadiyah Malang. He completed his master degree in University of Indonesia. His research are about activity of daily living in patient with decompensatio cordis grade III. Study on School Supplementary Food Supplementary Program (PMT-AS) in Pasuruan District, Prosperous School Factors with The School Well-Being Model Approach. Development of healthy school factors: the analysis of the relationship of school conditions, social relations, self-achievement to the health status of the school community.
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Medical University of Lublin-Poland

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Indah Dwi Pratiwi, MNg

Anggraini Dwi Kurnia, MNS

Risa Herlianita, MSN

Nur Aini, M.Kep

Ahmad Abdullah, M.Kes

Ali Multazam, M.Sc
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A Case Study of the Role of Media and Academic Journal in Providing the Evidence to Solve Child's Malnutrition in Indonesia

T. Tasnim

STIKES Mandala Waluya Kendari
*Correspondence: tasnim_ialf@yahoo.com

ABSTRACT

Background: Malnutrition in children under five is a serious public problem in Indonesia. Decision makers needed the evidences to overcome Indonesian children's malnutrition. Media and academic literatures could provide those. Objectives: This case study aimed to analyse the role between mass media and academic journal in providing the evidence to solve child's malnutrition in Indonesia. Methods: This case study selected 3 forms of media, including national newspapers, magazines and television. While, academic literatures were searched through Proquest database and Google scholar from 2006 until now. Screening articles was based on the inclusion criteria including the causes of malnutrition in children under five year of age in Indonesia. Results: This study was conducted in 2012-2014 that found that both academic literatures and media have suggested the basic causes of child malnutrition such as economic deprivation, low parental education, contradictory local traditional beliefs and long drought. The causes then influenced households in purchasing power for food, providing appropriate foods, housing condition, utilization of child health care, parental awareness and knowledge about child nutrition. Eventually, these led to high child morbidity, low birth weight and low child nutritional intake. However, the way of presenting the causes of malnutrition was different between academic journals and media. Academic journal presented the causes with use the statistical evidence, logical framework to analyse and good structures. While media presented the evidence with the simple way, without frameworks and insufficient evidence. The evidence was gotten from experts and policies' opinions and mother's expressions. However, media presented their cases from all representative regions of Indonesia, so media were viewed as an appropriate tool to push the issues into the policy agenda. Conclusion: all information about malnutrition causes is available in both mass media and academic journal, but their presentation is different. Those sources are important and complementary.

Keywords: Media; Academic Journal; Evidence; Child; Malnutrition
Analysis Of Environmental Factors Affecting The Disclosure Of Hiv / Aids Status

Aini Alifatin, SKp., M.Kep

Undergraduate Program of Nursing Faculty of Health Sciences Universitas Muhammadiyah Malang
* Correspondence: aalifatin@yahoo.co.id

ABSTRACT

Background: Disclosure about HIV / AIDS status is an important factor that supports the success of care and treatment for people living with HIV / AIDS to live longer. But there are many factors that hinder Disclosure in revealing HIV / AIDS status, which makes HIV / AIDS a silent killer that prevents anyone from finding out about their illness or taking medication. Self disclosure is influenced by the environment in which a person behaves, including: parenting, stigma (social culture), stereotype, socioeconomic, sex role, and education of a person (Albertia and Emmons, 2002 in Guinea 2007). Objectives: The study aims to analyze the environmental factors that influence Disclosure about HIV / AIDS status

Results: The results of the study establish three components in environmental factors that influence the Disclosure, including: Stigma (social culture) (X1) has the strongest partial correlation (39.69%) with p value: 0.001, followed by communication pattern (X2) With p value: 0.021, and temperament (X3) with p value: 0.050, these three components simultaneously have significant effect on Disclosure with p value: 0.002, The overall influence between independent variables (X1, X2, And X3) to the dependent variable (Y) is 46.7% (R Square), and the remaining 53.3% is influenced by other variables not examined in this study.

Conclusion: The study concludes that stigma has the greatest effect on transparency, so intensive counseling and cross-sectoral cooperation are needed as an effort to protect, prevent HIV / AIDS transmission and treatment

Keywords: HIV / AIDS, Disclosure, Stigma, Temperament, Communication pattern, dummy.
Analysis of Physiotherapy Comprehensive Care as an Integrated Care at The UMM Hospital

Sri Sunaringsih Ika Wardoyo¹ Rakhmad Rosadi²
¹,²Physiotherapy Study Program, Faculty of Health Science, University of Muhammadiyah Malang
¹Email: rakhmad21@gmail.com

ABSTRACT

People’s cost limitation in accessing health service, especially for degenerative diseases that need relatively long term health care has caused the increase of cases that need physiotherapy service. This research is aiming at identifying people’s diseases problems that need physiotherapy and assets needed in physiotherapy service, selecting problem issues by thorough analyzing the characteristics of physiotherapy problems, defining the need of physiotherapy service by using measured terminology including economic and social factors, formulating the design of physiotherapy service model (service inside and outside building). This research used observational method. As a results, it indicates that some health problems namely post stroke rehabilitation as well as palliative cases needs physiotherapy service. Moreover, physiotherapy service model can be developed through integrative system with post-discharge planning patient in UMM hospital.

Key words: physiotherapy, disease, economic, social factors
Application Of Innovative Learning Flipped Classroom On Improving Motivation Of Midwifery Students In The Antenatal Care

Kolifah a, Niken Grah Prihartanti b, Mudhawaro b

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ABSTRACT

Introduction: Weak learning process is one of the problems that in the world of education today. The quality of health personnel graduates is determined by the learner team in the education process, so it is necessary to improve the quality of teaching the midwifery diploma program. The purpose of this study is to improve the motivation of midwifery diploma program in the subject of antenatal care. Methods: This type of research is quantitative qualitative research with classroom action research design. The population is the second semester students of the Diploma Program of Midwifery. Instruments are motivation questionnaire, field observation, sheet covering lecturer activity, student activity and application of flipped classroom. The results of motivational questionnaires were tested by paired comparative of Wilcoxon test, hypothesis is accepted if p <0.05. Results: The results showed that there are significant differences between motivation before and after implementation of Flipped Classroom also showed a significant difference with p = .000. Conclusion: Implementation of Flipped Classroom increase attention and confidence of the students on the antenatal care this case it shows students' learning motivation also increases. Increased motivation is expected to improve the achievement of students.

Keyword: Flipped Classroom, Motivation, Midwifery diploma program
Association Between C677T Methylenetetrahydrofolate Reductase (MTHFR) Gene Polymorphism And Treatment Response In Schizophrenia Patients In Dr. Arif Zainudin Hospital Surakarta

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ABSTRACT

Background: Schizophrenia is one of the most common psychiatric disorders. Antipsychotics are widely used to treat schizophrenia. However, around 20% of people with schizophrenia fail to respond to antipsychotic treatment. Treatment response is influenced by genetic factors. Polymorphism of APOE, NOTCH4 and COMT gene has been reported to be associated with treatment resistance in schizophrenia. Other gene such as MTHFR gene is considered to be involved in the development and prognosis of schizophrenia. Currently, studies that investigate the association between MTHFR gene polymorphism and treatment response in schizophrenia is very rare, especially in Indonesia. Objective: To examine the association between C677T MTHFR gene polymorphism and therapeutic response in patients with schizophrenia in dr. Zainudin Arif hospital, Surakarta. Method: A total of 60 schizophrenia patients of whom 30 were resistant to treatment and 30 were responsive, took part in the study. Peripheral blood was drawn from the subjects for DNA extraction. MTHFR gene polymorphism was determined with ASO PCR method. Result: The distribution of MTHFR genotype in the subjects is 0% TT, 90% CT and 10% CC. Overall, the frequency of T allelic C677T MTHFR gene polymorphism is 54%. There is no significant difference between polymorphism status and treatment response (p = 0.085). Additional analysis revealed that relapse rate significantly influenced treatment response (p = 0.001). Conclusion: C667T MTHFR gene polymorphism is not associated with treatment response in schizophrenia.

Keywords: Treatment response, MTHFR, polymorphism, schizophrenia
Carbohydrate Based Drugs

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ABSTRACT

The world needs new drugs that are effective, affordable and have few side effects. Current drugs that fight bacterial infection are less and less active due to antimicrobial resistance, and drugs against a deadly and human infective flu strain should be made available before the next pandemic. The potential of the immune system should be harnessed in the creation of novel potent and safe vaccines. In many of these cases carbohydrates could play a major role. The reason is that carbohydrates are very important in proper biological functioning of organisms. Our cells are covered by carbohydrates and these are constantly communicating with others through carbohydrate recognition. Considering that carbohydrates are also the attachment points of pathogens, or often the recognition modalities of the immune system, far more advantage should be taken of carbohydrates. Fortunately we now know more and more about the biology and chemistry of the sugars, but as drugs they are underrepresented. This lecture will describe the potential and recent successes stories of cases where sugar-based drugs are becoming a reality. Increased potency through multivalency is an important aspect. Other aspects include the creation of glycomimetics, carbohydrate prodrugs, and methods to enhance the pharmacokinetics of these drugs.

Keywords: carbohydrate drugs; bacterial adhesion; multivalency; drug potential; antimicrobial resistance
Caring Experience Of Primary Family Caregiver In Elderly With Dementia At Indonesia Rural Area

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ABSTRACT

Background: Primary family caregiver (PFC) is the nearest person whose main function is the care of elderly dementia at home, before care elderly dementia they require essential preparation, the first is preparation of mentally and the second is preparation in environment. Not all family members willing to care for them, only PFC has a sincerity that is capable to take care of them. Aims: In fact the PFC is not only busy with taking care of elderly dementia alone, but they also have other roles and functions in their family. Some consequences of PFC became the spirit of researchers to explore caring experience of primary family caregiver in elderly with dementia at rural area in Indonesia Methods: The researchers used a qualitative design with interpretive phenomenological approach, the retrieval of data using in-depth interviews with semi-structured interview guide and field notes. Results: This research resulted in three themes (1) primary family caregiver’s barrier in taking care elder with dementia (2) intervention of PFC in taking care elder with dementia (3) Strenght of PFC in taking care elder with dementia. Conclusion: PFC in caring for elderly dementia at home the fact is not easy, the efforts taken by the PVC in order to recover dementia being pseudo hopes for PFC in the countryside because progress of disease that slowly got worse in addition plus the lack of exposure to health information. However, elderly dementia has ever had any meaning for the life of the PFC in rural area, this is the power of the PFC in addition as well as a form of devotion, and favors.

Keywords: caring experience, primary family caregiver, dementia
Chlorogenic Acid Attenuated Inflammatory Response in Kidney Disease with Ischemic Reperfusion Injury

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ABSTRACT

Background: Ischemia reperfusion injury (I/R) at kidney has known as the primary cause of AKI and the most seeing through it. Chlorogenic acid (chlorogenic acid/CGA) is one of the most common polyphenols in the human diet. Chlorogenic acid has an antioxidant effect, antiapoptosis, antiinflammation, antifibrosis. Objective: To investigate the anti-inflammatory effect of chlorogenic acid on the kidneys with I/R injury. Methods: Twenty male mice (3 months-old). The animals were divided into 4 groups, Ischemia reperfusion (IR, n = 5), I/R injury given CGA dose 3.5 mg/kg/BW (IRCGA1, n = 5), I/R injury given CGA dose of 7 mg/kg/BW (IRCGA2, n = 5), and I/R injury given CGA dose 14 mg/kg/BW (IRCGA3, n = 5). The CGA was given intraperitoneally injection for 3 days. At the end of the examination, serum creatinine and leukocytes levels were taken from retroorbital venous blood. The data were analyzed by one-way ANOVA and Kruskal-Wallis statistic test (p <0.05). Results and Conclusion: The IRCGA3 group showed an increase of creatinin serum and leukocytes level compared to the IR group (p <0.05). Chlorogenic acid is known antioxidant and anti-inflammatory can inhibit the inflammatory response.

Keywords: acute kidney injury, chlorogenic acid, inflammation, leukocyte
Civil Society Involvement in Sustainable Development Goals (SDGs) for Eliminating All Forms of Poverty Anywhere

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ABSTRACT

Background: Since Sustainable Development Goals (SDGs) 1 are launched globally in 2015, the United Nations encourages its member countries to conduct regular and inclusive reviews of progress towards achieving SDGs at the national and sub-national level that reported through the Voluntary National Review (VNR). VNR reporting on HLPF 2017 was conducted voluntarily by 44 member countries of the UN both developing and developed countries. The preparation of VNR aims at facilitating experience sharing, success, challenges and learning to accelerate the achievement of SDGs. VNR is also developed in the context of strengthening government policies and institutions in mobilizing support from various stakeholders and is expected to become a means of global partnership. HLPF 2017 entitled 'Ending Poverty and Increasing Prosperity for a Changing World' and will focus on seven SDGs discussions: Goal 1 (End all forms of poverty everywhere); Goal 2 (Eliminate hunger, achieve good food and nutrition, and promote sustainable agriculture); Goal 3 (Ensure a healthy life and improve the welfare of the entire population of all ages); Goal 5 (Achieve gender equality and empower women); Goal 9 (Build robust infrastructure, promote inclusive and sustainable industries, and encourage innovation); Goal 14 (Conserving and sustainable use of marine and ocean resources for sustainable development); And Goal 17 (Strengthen the means of implementing and revitalizing global partnerships for sustainable development), which will be reviewed annually.

Objectives: Considering the importance of this problem Maternal Research Team of Medicine and Health Sciences Faculty Universitas Muhammadiyah Yogyakarta (FKIK UMY) cooperate with Maternal and Child Health Movements (GKIA) are participate in providing input in this VNR. Especially for SDGs goal 2 (Eliminating hunger, achieving good food and nutrition, and improving sustainable agriculture) and SDGs goal 17 (Strengthening the means of implementing and revitalizing global partnerships for sustainable development). The method that used was online surveys through Google Forms with bit.ly/GKIA-SDGs links. Surveys were disseminated through a network of maternal and child health movements.

Result: The result of the surveys showed most of respondents (74.8%) have heard of SDGs. However, there are still 25.2% of respondents who never heard of SDGs. The largest sources of SDGs information were from Media (52.8%) and Organization Civil Society (48%). Most respondents (75.7%) answered correctly regarding the understanding of SDGs. The rest (24.3%) said they did not know. Almost all respondents stated that all parties need to be involved in SDGs. Most respondents
generally know but they were not involved in government program which related to the improvement of children's nutritional status, access to drinking water and sanitation, elimination of violence against children, elimination of violence against women, knowledge of sexual and reproductive health for adolescents. Others were involved and the smallest do not know about the programs. Most respondents (58.6%) say women and men have not equal opportunities in education and employment. **Conclusion:** The conclusion is remind each other in the term of the need to socialize SDGs more systematically and massively at various levels using various media. Some of the responses received also proposed ways of socialization that were considered effective.

**Keywords:** SDGs, poverty, socialize, voluntary national review
Clinical Skill Evaluation of Undergraduate Nursing Students Using *Objective Structured Clinical Examination (OSCE)*

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**ABSTRACT**

**Background:** Although Objective Structured Clinical Examination (OSCEs) become one type of clinical skill evaluation method conducted widely by health institutions (medical, nursing and pharmacy), the use of OSCE in Indonesia has not been applied thoroughly. 

**Aim:** To explore clinical evaluation result at the subject of emergency nursing among undergraduate nursing students using OSCEs. 

**Method:** This research method was a descriptive observational research with a cross-sectional approach. 

**Result:** The results of this research are 60% of respondents show adequate result for the final result both in cognitive and psychomotor aspects. 

**Conclusion:** Nursing lecturer would concern more on the student ability in critical thinking and in analyze procedural skills rational.

**Keywords:** Clinical skill, evaluation, OSCEs, undergraduate, nursing students
Completeness of MCCD and Accuracy of Underlying Cause of Death

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ABSTRACT

Medical certification of cause of death (MCCD) is being issued on every death occasion in every hospital of Indonesia. MCCD consists of two parts; part 1 would record with those conditions in the causal link that leading to death and part 2 would fill with other conditions that significant in contributing to death. Leading cause of death are defined as Underlying Cause of Death (UCoD). UCoD is located on the Ic section of particular MCCD that have been used by selected hospital for this research. On the other hand, The Indonesian Vital Registration (VR) system relies on information of UCoD. The quality of it may varies considering to a medically qualified doctor who record it. It can be used in a large number on the go improving the health of the local, regional and national population. Hence, due to a great numbers particular public health uses to UCoD statistic are put, gaining their accuracy is a vital way. In this paper, We focused examining the effect of completeness of MCCD to accuracy of UCoD by reggresion ordinal. We taken a total sample from inpatient of death data in January to April 2017, founded 106 MCCDs to analyse and only 58 ones that recorded with UCoD. The result suggest that there is a significant effect the completeness of MCCD to accuracy of UCoD. Moreover, We are finding : 15 UCoD were stated very accurate, 11 were stated quite accurate and 32 stated not accurate. We suggest, it needs a commitment from doctors and hospital should be monitoring the completeness of MCCDs and update certain skill to produce high quality of UCoD in order improving VR system.

Keywords: Completeness; MCCD; Accuracy; UCoD; Hospital
Drug Utilization Study of Statin in Hemorrhagic Stroke

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ABSTRACT

Background: Hemorrhagic stroke is a neurologic injury resulting in significant morbidity and mortality. Some studies noted an increased risk of hemorrhagic stroke in patients receiving statin. However, growing evidence have demonstrated the neuroprotective effects of statin in hemorrhagic stroke. Objectives: To determine the pattern of statins use in hemorrhagic stroke. Methods: Observational retrospective study by using Patient Medical Record period Januari 2015 – Desember 2016. Results and Conclusion: We obtained 15 patients (6.5%) given statins therapy from total 230 patients with hemorrhagic stroke. Statins used are atorvastatin were 13 patients (87%) and simvastatin were 2 patients (13%). The dosage of atorvastatin were 20 mg orally, once daily, and the dosage of simvastatin were 20 mg orally, once daily. All of patients were given statins showed improvement profile outcomes. Keywords: Statin, Hemorrhagic Stroke, Retrospective
Effect Of Extract Black Cumin (Nigella Sativa) On The Vaginal Cytology Of Ovariectomized White Mouse (Rattus Novergicus Strain Wistar)

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ABSTRACT

Hypoestrogen in menopausal women can decreased vascularization, decreased elasticity of vaginal wall, and depletion of epithel with shortening the vagina. Vaginal epithelial depletion also causes loss of glycogen, decreased lactic acid production that could rise the vaginal pH and facilitates the occurrence of infection, irritation and vaginal becomes dry, hot and itchy. The importance of the role of estrogen for women reproduction, encouraging researches to find the source of estrogen from the others. Black cumin (Nigella sativa) is a spice that can be used as a medicinal plant and food preservatives. From several studies, Nigella sativa shows the effect of estrogen. The study aimed to determine the effect of black cumin (Nigella sativa) against changes on vaginal cytology of the ovariectomized white mouse (Rattus novergicus wistar strain). This study was true experimental design with the post test only control group designed with 21 female mouse divided into seven groups : a control negative group, a control positive group, and 5 treatment groups of black cumin extract at a dose of 1.25, 2.5, 5, 10 and 20 mg/kg BW/day (group P1, 2, 3, 4, and 5). The results were highest maturation index in group P4 and P5, highest average number of parabasal cell in control positive group, intermediate cell in group P3 and superficial cell in group P5. One way ANOVA test result showed the significant differences in intermediate cells changes (p:0,001), superficial cells (p : 0,000) and not significant in parabasal cell (p:0120). By the Kruskal-Wallis, there was significant difference in vaginal maturation index (p: 0,22). In conclusion, extract of black cumin (Nigella sativa) had a significant effect on the vaginal cytology of ovariectomized white rats (Rattus norvegicus strain wistar).

Keywords: menopause, black cumin extract, vaginal cytology.
Effect of Lactic Acid Fermentation on Total Phenolic Content and Antioxidant Activity of Fig Fruit Juice (*Ficus carica*)

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ABSTRACT

**Background:** Fig (*Ficus carica*) is used for a disease therapy due to its relatively complete nutrition and active compounds as sugar, mineral, vitamin, organic acid and phenolic compounds. A high phenolic compound in fig is related closely to its fruit activity as an antioxidant. Yet, its phenolic compound is difficult to be absorbed by the human body, so a fermentation is required. **Objectives:** This research aims to determine the effect of lactic acid fermentation on total phenolic content and antioxidant activity of fig fruit juice. **Methods:** Fig fruit juice was fermented at 37°C for 24 hours using 4 types of starter bacteria as *Lactobacillus acidophilus*, *L. bulgaricus*, *L. casei* and *L. plantarum*. The total phenolic content testing was conducted using the spectrophotometry method using sulfanilic acid reagent. The antioxidant activity was tested using the spectrophotometry method using DPPH reagent. **Results:** The fermentation result of fig fruit juice using *Lactobacillus bulgaricus* demonstrates the highest increase of total phenolic content (TPC=0.45%) and the biggest antioxidant activity (IC50=76.55 ppm) compared to the unfermented ones (TPC=0.09%; IC50=76.7 ppm). The fermentation result of fig fruit juice using other bacteria also demonstrates the increase of total phenolic content with a smaller antioxidant activity compared to the unfermented ones, yet it is still included as a strong activity. **Conclusion:** Based on the results, it can be concluded that the lactic acid fermentation is able to increase the total phenolic content and preserve the antioxidant activity.

Keywords: antioxidant, fig, total phenolic content
Effects Of Spiritual Care Cupping Reduce Pain In Patients With Knee Joint Pain In Puskesmas Sekapuk, Gresik

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ABSTRACT

Backgrounds: Joint pain is a disorder that can lead to disability and decreased performance. Spiritual cupping care is a combination of prayer and cupping that can increase endorphins and reduce pain in patients with knee joint pain. Purpose: The aim of the study was to explain the effect of spiritual cupping care therapy on the reduction of knee joint pain. Methods: This research is an experimental research with non randomized control group pretest posttest design method. The number of samples of 7 respondents selected based on sample criteria. Dependent variables in the study were endorphins and pain scale; the independent variable is spiritual cupping care. Instruments in this study were the observation sheet (numerical rating scale and endorphin hormone examination with elisa) and SOP spiritual cupping care. Data analysis was done descriptively and test of Wilcoxon, MannWhitney, and Kruskal Wallis. Results: Based on the signed wilcoxon test rank test in the treatment group obtained (pain scale: p = 0.016; endorphin: p = 0.018), spiritual cupping care caused changes in pain scale and endorphin levels. The Kruskal Wallis test was performed to determine the spiritual effect of cupping care on the scale of pain and endorphins compared with prayer group and deep breathing groups. The results obtained in this test are p = 0.001 (p <0.050), meaning that spiritual cupping care provides a decreasing effect of pain scale and increased endorphins. Conclusion and recommendation: Spiritual cupping care intervention can reduce the scale of pain and increase endorphins. Further research needs to be done by involving religious leaders and relaxation experts in prayer group and deep breathing groups that are expected to help respondents to obtain optimal results.

Keywords: Spiritual Cupping Care, pain scale, praying, deep breath relaxation technique, endorphins
Empowering Youth through HIV/AIDS Program in Jakarta, Indonesia

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ABSTRACT

Background: HIV/AIDS problem remains a concern in the Sustainability Development Goals program with the highest in young children. The cause of HIV/AIDS on youth because the lack of information and understanding about gender and reproductive health. Objectives: This study aims to analyze the implementation of programs related to HIV/AIDS among adolescents in Jakarta, Indonesia. The method is used mixed methods research with an explanatory design. The sample consisted of 155 respondents and 6 informants. This study uses Structural Equation Modelling (SEM) to analyze the data and to give information about which variable that can influence. This study took place in Jakarta Timur and Jakarta Pusat, the ethical approval come from the local major. Results: The results of a bivariate analysis are 83% of respondents have a fairly good knowledge about HIV/AIDS, but it is not in line with the attitude (54%) and action (60%) were performed. Mostly they know from electronic media and the internet. The multivariate analysis by SEM using 8.71 Lisrel obtained that we do not know that the knowledge, attitudes, and actions are simultaneously may affect each other. This is indicated by the value multiplir 0.11 (action with knowledge, gof 95%), 6.94 (action with attitude, gof 95%), while the value of adjusted $R^2 = 0.71$ (errorvar value = 0.0010) indicates that knowledge has a great influence on the actions and attitudes of respondents to the prevention of HIV/AIDS. Conclusion: All programs that are already running well, just based on the results of research programs and activities undertaken is not yet complete and comprehensive information on the young target. This can be achieved by a process of empowerment by using activities more applicable and in accordance with the interests of teenagers. The study recommends the monitoring of adolescents, especially youth so that we can stop cases of HIV/AIDS on the younger generation.

Keywords: HIV/AIDS; Programs; Evaluation: Youth
Experience of Vertigo’s Patients: a Case Study at Janti Public Health centre in Malang

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ABSTRACT

Objectives: to explore the experiences experienced, felt, and thought by vertigo sufferers in dealing with their health status before, during and after vertigo attacks. To identify what changes occur to the bio-psycho-socio-spiritual Vertigo sufferers in living their daily lives with their vulnerable conditions of recurrence. Method: This research used qualitative design with case study approach. Data collection with in depth-interview to 7 participants who had experienced vertigo more than one year in Janti Health Center Malang. Participants were selected by Purposive Sampling technique. Data analysis using Colaizzi method. Results: identified six themes of this study: (1) Vertigo Arrived Suddenly, (2) Physical and Psychological Stressor Cause Recurrence, (3) Physical Discomforts the Impact of Vertigo, (4) Vertigo sufferers at risk of physical injury, (5) Striving to Reduce Vertigo, (6) Require support from family’s and nearby person. Conclusion: Vertigo causes makes the patient's condition becomes very unstable and greatly affect the daily living.

Keywords: Vertigo’s experience, case study
Factors Affecting Self-Efficacy on Tuberculosis Patients in Tikung Public Health Center Lamongan

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ABSTRACT

Background: Tuberculosis was a contagious infectious disease caused by Mycobacterium tuberculosis. Patients who are diagnosed Pulmonary Tuberculosis will arose fear in him. In the form of fear of medication, death, drug side effects, transmit disease to others, job loss, rejection, low self-esteem, always isolate themselves because of embarrassment to the state of his illness and discriminated so that the quality of life of patients will decrease. It was important for tuberculosis patients to have confidence to heal or self efficacy.

Objectives: The purpose of this study was to analyze the factors that affect self efficacy in Tuberculosis patients at Tikung Health Center, Lamongan District.

Results: The most patients had positive self efficacy. Based on the statistical test shows that the mastery ecperiences, vicarious experience, social persuasion, and physiological conditions affect the efficacy of tuberculosis patients at Tikung Lamongan Public Health Center.

Conclusion: The role of nurses was very important in optimizing the factors that affect the beliefs of people suffering from tuberculosis at Tikung Health Center, Lamongan regency, for example by providing consultation related to the illness, so as to increase his conviction to be able to recover and live normally in the community.

Keywords: Efficacy, Patient, Tuberculosis.
Factors Affecting Women’s Motivation To Perform A Cervical Cancer Screening Test

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ABSTRACT

Background: A disease that attracts world’s attention and results the high mortality rate is cervical cancer. Lack of motivation is also caused by the ability of health workers to deliver and provide information early prevention of cervical cancer is not evenly distributed and properly socialized in addition to the social and economic factors, people with low socioeconomic, lazy to conduct investigation into the health service. Objectives: The purpose of this research was to determine factors affecting women’s motivation to perform a cervical cancer screening test. This research was conducted using cross sectional. Collection of data on cross-sectional design using a questionnaire. Results: The most dominant factor affecting motivation was financial factor. Conclusion: It is recommended to increase women’s motivation to perform a cervical cancer screening by developing a program and strategy suitable to women’s capacities and needs.

Keywords: Motivation, women, cervical cancer screening
FACTORS INHIBITING THE DIETARY COMPLIANCE OF THE PATIENTS WITH DIABETES MELLITUS AT PURWOKERTO UTARA PUBLIC HEALTH CENTER

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ABSTRACT

Background: The blood glucose level of patients with Diabetes Mellitus is influenced by their dietary compliance. The dietary compliance of patients with Diabetes Mellitus is influenced by various inhibiting factors, including income, environment, and information from the health professionals. Objective: The purpose of the research is to figure out the factors inhibiting the dietary compliance of patients with Diabetes Mellitus at Purwokerto Utara Public Health Center. Method: This research uses a correlation analytical design with a cross sectional approach. 87 samples are collected using a simple random sampling method. The research instruments are questionnaires of Barriers to Diet Self Care Scale as well as those for income, environment, and information from the health professionals. Result: A bivariate analysis is conducted using Spearman correlation test. The research results show there is no significant relationship between income and the dietary compliance barriers (p=0.145). However, there is a significant relationship between environment and the dietary compliance barriers (p=0.000; r=0.534) as well as between information from the health professionals and the dietary compliance barriers (p=0.000; r=0.427). Conclusion: The higher the inhibition of environment and information from the health professionals, the higher the dietary compliance barriers of patients with Diabetes Mellitus.

Keywords: Diabetes Mellitus, income, environment, information from the health professionals; and dietary compliance barriers.
Identification The Sources of Academic Stress and Coping Strategies In New Nursing Students

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ABSTRACT

Background: Differences between the education system of senior high school and college can cause stress on students, especially for new students. This problem requires students looking for ways to address these issues by using a coping mechanism. Objectives: This study aims to determine the source of the cause of academic stress in nursing freshman and how coping mechanism or coping strategies used by them. The study was a descriptive analytic design. The samples were 110 nursing freshman taken by simple random sampling technique. The research instrument used Coping Strategies Inventory (CSI). The data were analyzed by statistic descriptif and with Mann Whitney test. Results: The results showed 56 (51%) of students experiencing low academic stress and high stress on 54 students (49%). The highest cause of stress was academic factors and the lowest was environmental factors. The majority of the coping mechanism at the level of moderately adequate. Coping strategies that have used are problem solving and problem focused engagement. Conclusion: Based on the findings, the recommendations such as teach stress management, counseling, socialization of how learning programs that will be undertaken by the new nursing students for college later and reduce the academic burden on first semester because for this semester students is still in the adaptation stage.

Keywords: academic stress, coping mechanism, coping strategies, nursing students.
In Silico Study of Toxicity on Class of Antibiotic Agents Using Toxtree Software and Its Interaction with Its Receptors Using Molecular Virtual Docker Software

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ABSTRACT

Antibiotics is a drug used to treat infections caused by bacteria that are often used in the practice of pharmacy. In addition to the therapeutic effect of antibiotics also have side effects. The most common side effects of diarrhea, but it also can cause serious effects if there are toxicophore groups in the antibiotic drug. So the purpose of this study was to determine the drug class of antibiotics that are carcinogenic and mutagenic along with the group predicted to cause potential carcinogenic and mutagenic characteristics are based Toxtree, then know interaction group of carcinogenic and mutagenic antibiotics with receptor based MVD. The method used in silico that is antibiotic drug toxicity predicted with Toxtree and their interaction with the receptor is predicted with MVD. the result form this study that is from 131 antibiotic drug tested, there were 65 drug detected has a cluster of potentially carcinogenic and mutagenic. Then analysis related to the type of group causes carcinogenic and mutagenic showed that there were 10 toxicophor group with genotoxic mechanism and 4 toxicophor group with non-genotoxic mechanism. After testing the docking of 65 drugs there were 36 drug with their toxicophore group including farmacophore group that bind to amino acid receptors that kind of bond hydrogen bonds. Conclusions of this study are 36 antibiotics potentially carcinogenic and mutagenic characteristics on the human body.

Keywords: antibiotic, carcinogenicity, mutagenicity, toxtree, Molegro Virtual Docker
In Vitro Anti Cancer Activity of Active Substances from Mangosteen pericarp (Garcinia mangostana Linn) against T47 D Cell Lines

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ABSTRACT

Garcinia mangostana Linn (Guttiferae) or commonly know as mangosteen has been reported scientifically as anticancer. In developing a pericarp of G.mangostana as anticancer phytopharmaceutical product, bioassay guided fractionation approach was chosen to get active substances to be used as raw material breast-cancer drugs. The aim of this study is to get the anticancer substances from the pericarp of G.mangostana an active against breast cancer cells T47D. Separation of active substances was carried out by column chromatography techniques. Based on the principle of bioassay guided fractionation, then a cytotoxicity assay of ethanolic extract and fractions were performed against T47D human breast cancer cell lines. Cytotoxicity assay of the extract, fraction 2, subfraction 2.2, subfraction 2.2.4, and subfraction 2.2.4.4 provided IC\(_{50}\) values respectively 8.96 µg/mL; 1.80 µg/mL; 1.76 µg/mL; 1.12 µg/mL; and 6.93 µg/mL.

Keywords: Garcinia mangostana Linn, bioassay guided fractionation, active substance breast cancer.
In Vivo Antiplasmodial Activity of (E) – 1 – (4 – aminophenyll) – 3 – (2,3 – dimethoxyphenyl) prop – 2 – en – one Compound in Swiss Mice

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ABSTRACT

Background : Malaria is an infectious disease caused by plasmodium sp. Resistance to antimalarial drug urges the finding of new antimalarial agents. One of the potential agents is a chalcone derivate namely (E) - 1 - (4 - aminophenyll) - 3 - (2,3 - dimethoxyphenyl) prop - 2 - en - 1 - one. Objective : This study aimed to test the effect of (E) - 1 - (4 - aminophenyll) - 3 - (2,3 - dimethoxyphenyl) prop - 2 - en - 1 - one on plasmodium sp infection in vivo by measuring the median effective dose (ED 50). Methods : Swiss mice were divided into 6 groups consisting of control group and treatment groups receiving various doses of tested compound (10 mg, 20 mg, 40 mg, 80 mg and 160 mg / BW / day respectively). Tested compound were given for 7 consecutive days. Malaria model was made by infecting mice with 1000.000 P. berghei on day 4. Parasitemia were measured on day 5 after infection. ED 50 was counted with probit analysis. Result : Probit analysis showed that the ED 50 value for (E) - 1 - (4 - aminophenyll) - 3 - (2,3 - dimethoxyphenyl) prop - 2 - en - 1 - one was 17,36 mg / BW. Conclusion : (E) - 1 - (4 - aminophenyll) - 3 - (2,3 - dimethoxyphenyl) prop - 2 - en - 1 - one has a very good anti-plasmodial property.

Keywords : anti-plasmodium; ED50;
Indicaxanthin, Miraxanthin-V, and Hexahydrocurcumin as Potential Erythropoietin Agonist In Silico to Treat Anemia in Chronic Kidney Disease

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ABSTRACT

Background: Anemia is the most frequent complication of Chronic Kidney Disease (CKD) which is mainly caused by erythropoietin (Epo) deficiency. Epo agonist is the drug choice for anemia in CKD but some patients have antibody against Epo agonist. Indonesia has 9,600 species of medicinal plants that have therapeutic effects. Objective: This study aimed to identify Indonesian medicinal plants that have an agonist activity to Epo receptor in silico. Method: This was a bioinformatics study using all Indonesian phytochemicals which were registered in HerbalDB and had the 3-D in PubChem. The Epo-EpoR complexes were used as standard ligand and receptor with the Protein Data Bank code 1CN4. Because Epo and EpoR sizes were bigger than 1,500 Da, the molecules were truncated validated 3 times using AutodockVina 1.1.2. and all phytochemicals were molecularly docked using the same method. Docking results were visualized using PyMOL 1.7.4. Results: Truncated Epo interacted with EpoR in 9 different binding sites with average of binding affinity ranging from -2.6 to -5.5 kcal/mol. Indicaxanthin, Miraxanthin-V, and Hexahydrocurcumin had lower binding affinity than standard in each binding sites. Similar binding sites to EpoR were founded in Indicaxanthin (Leu³³, Glu³⁴, Glu⁶⁰, Asp⁶¹, Thr⁸⁷, Ala⁸⁸, Thr⁹⁰, Ser⁹², Phe⁹³, Asn¹¹⁶, Glu¹¹⁷, Ser¹⁵², His¹⁵³, Glu¹⁷⁶, Glu²⁰², Pro²⁰³, Ser²⁰⁴, and Phe²⁰⁵ residues). Meanwhile, Miraxanthin-V and Hexahydrocurcumin bound to EpoR with 12 and 11 residues in binding sites respectively. All phytochemicals had similar conformation with truncated Epo. Conclusion: Indicaxanthin, Miraxanthin-V, and Hexahydrocurcumin were potential as Epo agonist in silico to treat anemia in CKD.

Keywords: Agonist Erythropoietin, Anemia, CKD, phytochemicals, molecular docking
Job Satisfaction and Nursing Performance through Career Development (Cross Sectional Study in Buleleng Hospital)

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ABSTRACT

Background: Nursing performance becomes the essence in the success of nursing service at hospital, one way how to reach are enhancement of job satisfaction from nursing career development. Objective: The research is to analyze know the influence of career development to job satisfaction and nursing performance in Buleleng hospital, Indonesia. Results: The research were indicated career development has positive and significant effect on job satisfaction. It showed from the first hypothesis was p value of X (career development) = 0,000 < 0,05 with CR = 3,390. The second hypothesis informed p value of Y1 (job satisfaction) = 0,003 < 0,05 with CR = 2,998 which mean job satisfaction (Y1) has positive and significant effect to nursing performance. It represent career development indirectly has influence to nursing performance from job satisfaction. Conclusion: The good of career development has effect towards job satisfaction and indirectly enhancement to nursing performance.

Keywords: Career Development, Job Satisfaction, Nursing Performance, Hospital
Neurosteroids and Their Neuroprotective Actions

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ABSTRACT

Background: From biochemical point of view neurosteroids are steroid hormone derivatives that devoid hormonal action but affect neuronal excitability through ionotropic receptors. Neurosteroids are further subdivided into natural (produced in the brain) and synthetic. Nevertheless, some authors subdivide also natural neurosteroids into hormonal and regular (non-hormonal) ones, for example two hormone metabolites (allopregnanolone and tetrahydrodeoxycorticosterone) that devoid of hormonal activity. Hormonal neurosteroids may present neuroprotective effects realized in both genomic and non-genomic mechanisms. In details, they involve regulation of the pro- and anti-apoptotic factors expression, intracellular signaling pathways, neurotransmission, oxidative, and inflammatory processes. Since regular neurosteroids show no affinity for steroid receptors, they may act only in a non-genomic mode. Conclusion: Many efforts have been done to show efficacy of neurosteroids in the treatment of the central and peripheral nervous system injury, ischemia, neurodegenerative diseases, or seizures. However, knowledge about neuroactive steroids remains incomplete and still requires confirmation in clinical conditions.

Keywords: neurosteroids, neurodegeneration, neuroprotection
Nursing Students Competencies in Evidence Based Practice

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ABSTRACT

Introduction: The world of nursing is growing and nurses are requiring being proficiencies and establishing their professional responsibility in health care services, especially in giving their best intervention for the wellness of their patients. Therefore, the nursing students are requiring earlier becoming competence in application of Evidence based practice learning during the education period.

Objective: This study aims to determine the competencies in term of knowledges, attitudes dan skills in Evidence based practice among nursing students in STIKES Suaka Insan Banjarmasin.

Method: Quantitative descriptive research design with survey approach complementary by focus group discussion method, using total population sampling technique as much as 53 of the eighth semester nursing students STIKES Suaka Insan Banjarmasin. Data collections were used EBP-COQ questionnaire, univariate data analysis using frequency distribution, mean, and standard deviation.

Result: The competencies in Evidence based practice among nursing students in STIKES Suaka Insan Banjarmasin are mostly in moderate high category about 35 respondents (66,03%), mean score 83 and SD 8,80 with the following: Knowledge of EBP among nursing students are in the most high score is in category of moderate high about 44 respondents (83,01%), mean score 21,54 and SD 2.15; Skill of EBP the most higher score is in category of moderate high about 41 respondents (77,35%), mean 20,22 an SD 3,46; and Attitude towards EBP the most higher score is in high category about 27 respondents (50,94%), mean 41,22 and SD 4,83.

Conclusion: The competencies in Evidence based practice among nursing students in STIKES Suaka Insan Banjarmasin with highest component is the attitude, follow with knowledge and the lowest component is skill of EBP. Therefore, a lot of program requiring need to developing and establishing nursing student capability in EBP during their education time.

Keywords: Evidence Based Practice, Nursing Student, Competence
Optimization Formulation of Antioxidant Cream Vitamin E (α-Tocopherol Acetate) with Vco (Virgin Coconut Oil)

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ABSTRACT

Background: Vitamin E is an antioxidant that can be formulated in a cream. VCO can be used as the oil phase in cream and can also function as an antioxidant, moisturizer and emollient. Objective: The purpose of this study is to determine the effect of concentration level VCO in formula 1 (3%), formula 2 (6%), formula 3 (9%), and formula 4 (12%) antioxidant vitamin E vanishing cream base for physical characteristics (organoleptic, homogeneity, viscosity, dispersion power, and size distribution of globule), the chemical characteristics (pH), and the stability test (freeze thaw), and determining levels of VCO which can give optimum results of characteristics. Result: The organoleptic test for all cream have a soft texture, smell like VCO and white-colored. Results of the homogeneity test cream show a homogeneous composition and is not visible to the graininess. From the freeze thaw stability test results no visible any phase separation, but the pH of cream after freeze thaw stability test has decreased compared to the pH of the initial cream. The results showed that the pH value range between (6.553-7.146), the viscosity (12.000-26.000 cPs), and globule size distribution (0.2733-0.3220 mm), the results are analyzed using One-Way Anova showed significant differences. For the measurement of pH after freeze thaw stability test ranges (5.604-6.428) and the dispersion power (0.0792-0.1243 g/cm) no showed significant difference. Conclusion: Variation VCO in the formula 1, 2, 3, and 4 affect on the physical characteristics, chemical, stability test and VCO with concentration 12% give the best formula for optimal results.

Keyword: Vitamin E, Virgin Coconut Oil, crea
Patient Satisfaction On Health Service Center In Urban And Rural Area Kutai Kartanegara Regency East Kalimantan

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ABSTRACT

Background: Aspects satisfaction is mainly depends on expectations. Patient satisfaction with health services describe the level where the needs of patients in line with expectations and provide a standard of service that is acceptable. The main factor of satisfaction is the quality of health care provided by hospital care, processes of care, and outcomes of care.

Objective: The aim of this research is to know the patient’s level of satisfaction in health service center in urban and rural area Kutai Kartanegara Regency East Kalimantan.

Methods: This pilot pathfinder survey was conducted on 23-25 February 2017 in Kutai Kartanegara Regency, 95 respondents in urban area and 97 respondents in rural area. All respondents were given Health Care Satisfaction questionnaire which was measured using 5 dimensions (assurance, empathy, responsiveness, physical appearance, medical services). It contains 22 questions with 5 alternative answers. The entire primary data collected was processed using SPSS 22.0 software.

Result: This survey shows the level of satisfaction of health service is higher in men than in women. Sample with age of 45 years and above are the most satisfied. This result showed that person's education level affects satisfaction. The result also presented that daily income affects the satisfaction of respondents. Based on survey health service, satisfaction level are most numerous in urban area for each dimension. In urban area, respondents were satisfied at most the dimension of empathy and medical services (95,8%), when in rural area, respondents were satisfied at most on the dimension of responsiveness (89,9%).

Conclusion: There is a difference in the satisfaction level between urban and rural areas which showed in 5 dimensions. This result would be a reference to improve the quality of service in Kutai Kartanegara regency.

Keywords: patient satisfaction, health service, urban, rural
Peer Teaching with Root Cause Analysis Method in Increasing Obedience Reporting of Patient Safety Incident (Pre experiment Design in Mataram Hospital)

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ABSTRACT

Background: Reporting of Patient safety incident is very important for nurses in hospitals. In fact, many of them do not report it because fear of blame and lack of knowledge. Especially, when the team performing RCA (Root Cause Analysis) as a method to trace the cause of the adverse event. The RCA (Root Cause Analysis) method in its application has an impact on improving knowledge about incidents, learned in identifying problems, and forming on achievement targets and improved peer communication skills. RCA mechanism is not widely known by the nurse. Peer teaching method is considered effective as a learning method with themselves. Objectives: This study aims to determine the effect of Peer Teaching with RCA methods on obedience of patient safety incident reporting by nurses, including compliance, identification and internalization categories. Method: This study design is pre experiment with three times measurement. It is a Pre intervention, Post Intervention I and II. The study was conducted in Mataram hospital with 51 samples of Diploma and Professional nurses, at least one year of working period. Sampling technique is Purposive sampling. The data analysis used is Wilcoxon Test. Results: In all obedience indicators, there were differences in pre intervention score with post intervention I in the compliance category (p 0.000), identification category (p 0.004), internalization category (p 0.028) and the compliance category (p 0.000) in post intervention II. Conclusions: There are differences in compliance scores (compliance, identification and internalization categories) on the reporting the patient's safety incident prior to after given peer teaching on post intervention I and compliance indicator on post intervention II. So it is important to keep peer teaching be improve nurse obedience in the identification and internalization categories.

Keywords: Obedience; Patient safety incidents reporting; Peer Teaching; RCA methods.
Influence of Muscle Quadriceps Femoris Strength with Postural Balance Level in Elderly

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ABSTRACT

This study aims to determine the relationship between quadriceps femoris muscle strength with postural level of balance in the elderly. The researchers used a manual muscle testing (MMT) tool for the quadriceps femoris muscle strength component, and on the postural equilibrium component using a tinetti balance test. Subjects studied were elderly aged 60 and above members of the Association of Elderly Mawar Indah Banaran Pabelan and PWRI Wedha Tama Kartasura branch who entered the criteria of inclusion and did not enter exclusion criteria. The research used cross sectional approach which is done by observation to the sample. The data were collected using total sampling technique from population of 60 people, and considering inclusion and exclusion criteria so that 39 samples were obtained. The test used is nonparametric correlations spearman’s rho with equivalence degree 0.05. The test results showed a value of 0.00 where this value <0.05, so it can be said the test results are significant. This means that from this study proved a strong relationship between quadriceps femoris muscle strength with postural level of balance in the elderly.
Prevention of Antibiotic Resistance Microflora Spreading by Analyzing Surgical Infections' Microbiological Profile

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ABSTRACT

Background: Antibiotic resistance can be found among the top five most problematic issues that the international medical community pays a special attention to. The strategy of combating antibiotic resistance includes the rationalization of the antibiotic therapy, based on the regional specificity of the microbiological spectrum of diseases. Objectives: to investigate the microbiological profile of main groups of soft tissue surgical infections and acute surgical abdominal diseases in the Department of Surgery and develop further regional recommendations for the antimicrobial therapy. The methodology: retrospective analysis (2012-2013 years) of operated patients’ bacteriological cultures in the Surgical Department of Lviv Communal City Clinical Emergency Hospital (Ukraine). The microflora of 646 samples (primary and secondary) was analyzed. 416 primary samples (2015 year) were studied separately to identify the resistance of the main pathogens. The analysis was carried out with the usage of the WHONET 5 database (standardized microbiological laboratory software). Results: aerobic microorganisms were identified in 551 (85.3%) samples; in 95 (14.7%) the growth wasn’t noticed. In total, 12 microorganisms were detected: Gram-negative (58.3%) and Gram-positive (41.7%) bacteria. All results were sorted into the main surgical nosological groups: superficial infections of the skin and subcutaneous tissue (66%), necrotic infections of soft tissues and deep phlegmons (8.5%), acute surgical abdominal diseases (25.5%). S. aureus was the dominant pathogen in superficial infections of the skin and subcutaneous tissue (243 samples; 63.9%), necrotic infections and deep phlegmons (26 samples; 53.1%), and E. coli was in acute surgical abdominal diseases (49 samples; 33.3%). Antibiotic susceptibility of the main pathogens was proved: S. aureus – to amikacin, gentamicin, vancomycin, and imipenem (100%); E. coli – to amikacin, gentamicin, imipenem, ciprofloxacin (100%). Particular attention was paid to antibiotic resistance of the clinical isolates of the dominant pathogen: generally, 37.3% strains of S. aureus were methicillin-resistant (MRSA), including multidrug-resistant strains. Conclusion: The data of the microbiological profile is the objective basis for the regional clinical antibiotic therapy recommendations in the Department of Surgery. Antimicrobial resistance research and surveillance may be effective to prevent the spread of antibiotic resistance microflora.

Keywords: microbiological profile; clinical isolates; antibiotics resistance; antibiotics; clinical recommendations
Propolis *Trigona Sp.* Mouthwash Efective in Lowering Anaerobic Gram-Negative Bacteria Colonies

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ABSTRACT

**Background:** Periodontal disease is an infectious disease that attacks gingiva and other dental supporting tissue which caused by microbial bacteria in subgingival plaque. The majority bacteria are an anaerobic gram-negative. Propolis is one of natural products as an antimicrobial mouthwash. One type of bee that able to produce propolis in large quantities is *Trigona sp.* which is common in South Sulawesi. **Objective:** The aim of this research is to know the effectiveness of propolis *Trigona sp.* as a mouthwash against some colonies of anaerobic gram-negative bacteria. **Method:** The type of this research is using pretest-posttest with control group design. A sample size of 28 people was selected with the research criteria who visited the Periodontology Department of Dental Hospital of Hasanuddin University. The treatment group rinse using extract propolis 5% and 10% and aquades as a control. Negative anaerobic bacterial carried out from sulcus gingival fluid, then cultivated in medium MacConkey using spread method. The decrease in the number of negative anaerobic bacterial colonies was calculated manually. Statistical analyzes used were T paired, and Anova test (p<0,05). **Result:** Paired T-test results showed that there was a difference of the number of anaerobic gram-negative bacteria colonies between before and after 14 days of treatment in the propolis group of 5% and 10% concentration (p = 0,000), when in the control group (aquades) there is no difference (p = 0.057). Anova test results showed that there was a decrease in the number of anaerobic gram-negative bacteria colonies between 5%, 10% propolis and control group (p = 0.000). **Conclusion:** Extract propolis *Trigona sp.* 5% and 10% which is contained in mouthwash is effective in lowering the number of anaerobic gram-negative bacteria colonies. The use of mouthwash with extractives of propolis may be recommended as an alternative therapy for periodontal disease.

Keywords: *propolis trigona sp.; mouthwash; anaerobic gram-negative bacteria;*
Relationship Between Cauvage Syndrome and Health of The First Trimester Primigravida Wife in Puskesmas Singosari

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ABSTRACT

Background: In last decade, interest in fatherhood has increased. It is known that pregnancy can have a profound physical, psychological, and social impact on the expectant father. The Cauvage Syndrome refers to physical symptoms of varying intensity and severity experienced by the expectant father. Many husbands who experience physical symptoms during pregnancy of their partner. This situation sometimes referred as Cauvade Syndrome (Fathering). The modern type of Cauvage Syndrome refers to pregnancy-like symptoms which are observed amongst the partners of pregnant women. Anxiety of the husband when facing a primigravida wife in the first trimester with emesis gravidarum varies greatly from mild anxiety to panic. The purpose of this study was to determine the relationship between Cauvage Syndrome of the husband and the incident of emesis gravidarum in the primigravida wife in the first trimester.

Methods: This study used a correlational design analytic research with cross sectional approach. The sampling technique was using a quota sampling with the number of respondents as many as 24 people in Puskesmas Singosari in January 2016. Data collection of Cauvage Syndrome by measuring the anxiety level of husbands was using DASS questionnaires, while emesis gravidarum used a questionnaire based on the frequency of occurrence. Data was analyzed using the Spearman Rank analysis (significant level of α = 0.05, p-value < α) using a significant level.

Results: Based on cross-tabulation between the occurrence of emesis gravidarum with husband anxiety level indicates the incidence of emesis gravidarum in moderate and severe level as many as 10 people (41.7%) and the most dominant anxiety level of the husband that was moderate anxiety levels as many as 7 people (29.2%). Result of Spearman Rank test concluded that ρ value = 0.03 > α = 0.05 (5%).

Conclusion: The results of the analysis obtained H₀ rejected and H₁ accepted. There is a relationship between the incidence of emesis gravidarum in the first trimester primigravida women with husband anxiety level with the results of Spearman Rank ρ = 0.03 > α = 0.05 (5%). Husband anxiety when facing his wife with emesis gravidarum vary from no anxiety to panic, in this study the response of husband anxiety when facing his wife with emesis gravidarum is in the moderate level.

Keywords: Cauvage Syndrome, husband anxiety levels, the incidence of emesis gravidarum
Relationship Between Knowledge, the Clean and Healthy Behaviour and Quality of Children in 08 Rawa Buaya Elementary School

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ABSTRACT

Quality of life is as one an indicator to profile development of the country and as mentioned in sustainability development goals that committed will be achieved in 2019. Quality of children is definitely related to encourage the good habit that can continue sly practice in future life. It can be obtained with improvement in knowledge and the clean and healthy behavior. The objective of this study is to evaluate the relationship between knowledge, the clean and healthy behavior and quality of children in 08 Rawa Buaya Elementary School. This Elementary School is one of public school that located near to flood area mostly defined with poverty environment and lack of hygiene. The study population included 127 people from fourth and fifth grade in that elementary school assumed as the age when the children can answer the questions regarding their life. The data was obtained from face to face interview using structured questionnaire. Data that collected was categorized and analyzed using chi square. The result of this study is there are significant relationship between knowledge and quality of children (P<0.05) and significant relationship between the clean & healthy behavior and quality of life (P<0.05). This study showed that the importance of being informed how to live in healthy way and practice it in a real life since the beginning of age. It is a lifelong process that can be learnt and make it as a lifestyle and proved as the factors improving the quality of the children. Thus, the encouragement from the parents and teacher are necessary to keep reminding the children to stay clean and healthy.

Keywords: quality of life; clean and healthy behaviour; elementary school, PHBS, Children
Risk-Adjusted Analysis of Relevant Outcome Drivers to Patients with Diabetes

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ABSTRACT

Clients with diabetes are particularly at high risk of traffic accidents that might be caused by the acute complications such as, hypoglycemia and hyperglycemia as well as chronic complications such as, micro-vascular diseases, macro-vascular diseases and neuropathy. This study aimed to get an in-depth understanding about the experience of diabetic clients during driving car or riding motorcycle at Depok city. Six participants were recruited using a purposive sampling method. A Colaizzi content analysis was employed. Seven Themes emerged depicted the meaning of experiences of driving among DM clients. The seven themes were interdependence. This study concluded that diabetes clients who actively drive had high risk of having road accident. This study suggested the necessity of regulation and education for clients with diabetes who actively drive.

Keyword: diabetes client, driving, accident risk, theme, regulation and education
Role of Community Nurses in Improving Carer’s Ability in Caring Children with ARFID (Avoidant Restrictive Food Intake Disorder)

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ABSTRACT

Community nurses have a vital role in improving the caregiver's ability to care for children with ARFID (Avoidant Restrictive Food Intake Disorder). Maternal and family beliefs about the potential risks and seriousness of their child who suffers from ARFID will result in their confidence. This study aims to illustrate the role of nurses in improving caregiver skills in caring for children with ARFID based on Johnson's Behavioral System Model (JBSM), Health Believe Model (HBM), and Parents-Child Interaction Model (PCIM). This research is a literature research of electronic databases using keywords of "community nurse", "carer", "ability", "Avoidant Restrictive Food Intake Disorder", "caring", and "role". The article used in this review is primary research article with no limiting method of research. The results of the data analysis obtained seven themes which were mutually open, related and connected to each other. They were (1) Attachment-affiliative, (2) dependency, (3) ingestive, (4) eliminative, (5) sexual, (6) achievement, and (7) aggressive / protective relationships. The development of caregiver skills in caring for children with ARFID will be very useful in preventing childhood malnutrition. Caregivers in this case the mother or caregiver can develop constructive behavior in accompanying children with eating disorder.

Keywords: Role, community, nurse, carer, ability, caring, Avoidant Restrictive Food Intake Disorder
**Selected Benefits of Pentoxifylline in Acute Ischemic Stroke Management: Risk Factors Consideration**

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**ABSTRACT**

**Background:** The role of pentoxifylline in acute ischemic stroke lacks objective markers of its efficacy. In this study, we used blood viscosity as a specific marker to evaluate the efficacy of pentoxifylline.

**Objectives:** This quasi-experimental study aimed to analyze pentoxifylline as an antihemorrhheologic agent in acute ischemic stroke patients with certain risk factors, including age, smoking, hypertension, dyslipidemia, diabetes mellitus, and ischemic heart disease.

**Results:** There were 22 acute ischemic stroke patients with blood hyperviscosity within 72 hours of onset who received pentoxifylline 1.200 mg/day for five days and continued with oral dose 400 mg twice daily for the next twenty-three days. All subjects received the standard treatment for acute ischemic stroke. The risk factors of stroke were recorded including smoking, hypertension, dyslipidemia, diabetes mellitus, and ischemic heart disease. The median of baseline blood viscosity was 6.46 poise (5.20-9.73). The blood viscosity at the seventh and thirtieth day tended to decrease. The mean decrement blood viscosity level was statistically significant in smoking (p=0.009) and dyslipidemic (p=0.006) subjects. Clinical outcomes were assessed using the National Institutes of Health Stroke Scale (NIHSS), modified Rankin scale (mRS), and Barthel Index (BI). All subjects had good functional outcome and statistically significant for those who had diabetes mellitus and heart disease.

**Conclusion:** Pentoxifylline is beneficial for acute ischemic stroke patients with risk factors of smoking, dyslipidemia, diabetes mellitus, and heart disease.

Keywords: Blood hyperviscosity; ischemic stroke; risk factor; pentoxifylline
Situational Influences Related to Diabetes Self-Management in Malang, Indonesia

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ABSTRACT

Background: Diabetes self management is needed to prevent the complication of diabetes mellitus. Objective: The aim of this study is to identify the relationship between situational influences and diabetes self-management among adults with type 2 diabetes mellitus in Malang City, East Java, Indonesia. Methods: A cross sectional design was applied in this study. The participant of 127 adults with type 2 diabetes mellitus, aged from 20-59 years were recruited. Participants were selected by multi-stage random sampling in Public Health Centers of Malang City. Instruments included personal factors (education), situational questionnaire and the Summary of Diabetes Self-Care Activities (SDSCA). Pearson product moment correlation were used for analyzing data. Results: The results showed that situational influences (r=-.248, p<.05) were significantly associated with diabetes self-management. However, education (r=.044, p>.05) were not significantly associated with diabetes self-management. Conclusion: Situational influences could be important in improving effective strategies to support sustainable diabetes self management.

Keywords: Situational influences, diabetes self management, adult, Indonesia
Snake and Ladder Play Therapy (Terapi Bermain Ular Tangga) to Lower Bullying at Teenagers In Semarang

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ABSTRACT

Introduction: Nowadays the phenomenon of bullying ironically occurs among teens and it can affect the psychological condition of the teenagers who are bullied especially during the transition period. Teens tend to break the bonds of parents and turn to peers for socializing. Those teenagers are required to conform with peers that have different characters, so there is a likely that such teens are influenced by more aggressive peers and engage in aggressive behavior as a way to gain recognition from their peers or even become victims of aggressive behavior and bullying peers because they cannot adjust well in the group which ultimately affect the physiological functions, even not unlikely that bullying can cause mental disorders later in life, both perpetrators and victims.

Method: This is quasy experiment with pre-posttest group design by giving a specific treatment in a group of subjects that were observed before and after the intervention. There were 32 sample respondents by treatment. The independent variable in this study is the game Snakes and Ladders, while Dependent Variables in this study is Bullying Behavior. This research used Wilcoxon test as statistical test to identify a decrease in bullying behavior before and after therapy of play snakes and ladders.

Result and analysis: By bivariate test using Wilcoxon ranks test, the results showed that the significant value of 0.00 is smaller than α (0.05). Therefore, it can be stated that there are differences between before and after the intervention or treatment.

Conclusion: Snake and ladder play therapy significantly can reduce bullying behavior at teenagers.

Keyword: snakes and ladders play, therapy, bullying
Steam and Water Distillation of *Piper Betle*, *Ocimumbasilicum*, *Cymbopogonwinterianus*, and *Citrus hystrix* Leaves for Activity Testing of Insect Repellent Against Mosquito

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**ABSTRACT**

**Background**: *Piper betle*, *Ocimumbasilicum*, *Cymbopogonwinterianus*, and *Citrus hystrix* leaves contain essential oils suspected of having mosquito repellent activity, which can be used as a synthetic repellent alternative such as DEET. Objective: To obtain insect natural repellent to mosquitoes from essential oils. **Method**: Steam and water distillate to obtain essential oil, GC-MS to know its chemical content. The insect repellent volatile oil activity test in various combinations of concentrations against *Aedesaegypti* mosquitoes used the subject of mice for 6 hours. **Results**: Steam and water distillates yielded oils with 0.56% v/b (*Piper betle*), 0.33% v / b (*Ocimumbasilicum*), 1.7025% (*Cymbopogonwinterianus*) and 0.693% (*Citrus hystrix*). The yield of GC-MS *Piper betle* leaf oil contains Chavicol acetate compounds (19.284%) and Trans-isoeugenol (18.485%), *Ocimumbasilicum* leaf oil contains z-citral compounds (54.201%), *Cymbopogonwinterianus* leaf oil contain citronellal oil (35.843%), and *Citrus hystrix* leaf oil contain Citronellal (66,550%). The results of the activity test showed that the combination of *Piper betle* and *Ocimumbasilicum* leaves oils had insect repellent activity which was not different with DEET 13%, except for the lower concentration of 50:50. While the combination of *Cymbopogonwinterianus* and *Citrus hystrix* leaves oils showed that there was a difference of protection between treatment groups, and there was a difference of protection at test time interval because p value <0.05. **Conclusion**: *Piper betle* and *Ocimumbasilicum* leaves oils or combination of both and *Cymbopogonwinterianus* and *Citrus hystrix* leaves oils or combination of both potentially as an alternative insect natural repellent to mosquitoes.

**Keywords**: *Piper betle*, *Ocimumbasilicum*, *Cymbopogonwinterianus*, and *Citrus hystrix* leaves, Steam and water distillate, insect repellent, mosquitoes
Strengthening Biostatistical Skills of Medical Doctors and Health Professional through A Hands-on Approach

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ABSTRACT

In the area of evidence based medicine (EBM), biostatistics and epidemiology are considered as the main elements aiding the health professional to design a research study, understand the literature, and make decisions about patient care. Although research in medicine are increasing in number, many educators in medical and health sciences (MHS) faculty do not completely understand the process of statistical investigations and planning statistical inquiry in medical and health related decisions. Thus justifies the ongoing integration of biostatistical training into medical institution educational settings. Furthermore, planners and policy-makers in the MHS education institutions need to apply research-based information to maintain and improve quality of teaching-learning processes. Toward meeting the above objectives, a series of biostatistics workshop in clinical research was designed at Faculty of Medicine University of Muhammadiyah Malang (FM UMM) in Indonesia. The workshop was developed and implemented to provide medical doctors and health professional with opportunities to get their hands on statistical investigations. Eighteen until twenty-five medical doctors and health professionals from FM UMM, other universities and hospital, participated in this intervention, which consisted of four day workshop. We assessed the impact of this intervention through pre and post-workshop evaluations. Significant result were obtained that showed the benefits of a biostatistics workshop in clinical research that can help medical doctors and health professionals to develop a conceptual understanding of statistical ideas and their applications to investigate problems of medical and health research (p = 0.0000). The results indicate that workshop approach can facilitate developing statistical knowledge and skills to solve medical and health research problems. Incorporating biostatistics into ebm practice and curriculum would pave new ways into research fields. MHS faculty should include more effective biostatistics training in their faculty development programs and curricula to successfully prepare educators and students for this important lifelong learning skill.

Keyword: Biostatistics; Evidence Based Medicine; Medical Doctors; Health Professional; Research.
Students’ Approaches to Learning (SAL) in a Curriculum Problem-Based Learning and Non-Problem-Based Learning

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ABSTRACT

Background: Problem-based learning is learning where the results of the work process to understand and solve a problem. Study on approach to learning student / students’ approaches to learning (SAL) and problem-based learning (PBL) has been observed internationally. However, there is no published research on the differences students’ approaches to learning curriculum anatar PBL and non-PBL in Indonesia. Therefore, it is important to know the nursing students ‘approach to learning / students’ approaches to learning (SAL) within the context of problem based learning (PBL) and Non-Problem-based learning (Non-PBL). Objectives: The purpose of this research is 1). To describe the socio-demographic characteristics (sex, age, and origin) of nursing students; 2). To identify approach to learning of nursing students in PBL and non-PBL curriculum; 3). To compare the approach to student learning (students’ approaches to learning) between PBL and non-PBL curriculum. Results: Majority of respondents were female, 18 years old, came from Java and adopted a deep approach to learning both in PBL and Non-PBL groups. Different test results that do not found any significant difference in students’ approach to learning in PBL groups and Non-PBL (p-value> 0.05). Conclusion:

Keywords: Approach to learning, nursing, student, problem-based learning, curriculum, non problem-based learning
Support System on Successfull Exclusive Breastfeeding on Primipara Based On Theory of Maternal Role Attainment Ramona T Mercer

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ABSTRACT

Exclusive breastfeeding is the most important food for the health of the baby since birth. WHO has recommended Exclusive breastfeeding to infants from birth to 6 months of age. Breastfeeding is essential for optimal growth of both physical and mental and infant intelligence. One of the most common problems is the failure of mothers to exclusively breastfeeding, where there is often other feeding early in infants aged 0-6 months. This study aims to find out Support system for the Success of Exclusive Breastfeeding on Primipara Postpartum Mother.

The type of this research is descriptive correlational with cross sectional approach. This research has been conducted in February-June 2017 in Village Pojok Kediri with Purposive Sampling method, the number of respondents 30 people. Analysis of data by using Chi Square Test, with the result of research showed no influenced between Support system with the success of Exclusive breastfeeding. Suggestions from this research are for the success of exclusive breastfeeding needs cooperation between nurses, families and communities in enhancing adaptation of primiparous mother role, including adjustment with partner and build positive interaction with infant.

Keywords: Support system, Exclusive Breastfeeding
Supports Treatment Compliance by Sharing Happiness and
Being Friends: A Case Study in The SahabatAnakKanker
Malang Community, Indonesia
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ABSTRACT

Treatment compliance of Acute Lymphoblastic Leukemia (ALL) important to improve
morbidity and one of keys to successful treatment in children with ALL. SahabatAnakKanker
Malang is a non-state community of self help group cancer engaged to build positive
perceptions of patients and families about the fight against cancer in Indonesia. By
elaborating Friedmans role theory as a theoretical framework, this research is aimed to
explore the role concept self help group cancer childhood to support compliance care of
parent in ALL children. Moreover, this study also contribute to introducing self help group
cancer role framework to the community and health workers as an alternative compliance
improvement programs based on community and give alternative program for other cancer
communities in Indonesia in determining support programs for ALL. This study was
conducted by case study in qualitative design with 25 participants from volunteers, health
workers and the community. Data conducted in Komunitas SahabatAnakKanker Malang,
Malang City of East Java and Surroundings Area by participatory observation, in-depth
interview and focus group discussion. Data were analyzed with data reduction, display,
conclusion, verification and assisted by opencode software 4.0. This research found that this
community offered a major program to share happiness with cancer children and being
friends for them, motivators as well as facilitators for medication compliance, develop fun
hospital atmosphere for children and gain networking to support patients and parents.
Although they faces difficulties when interacting with health worker technically in the
treatment room, the activities undertaken by this community get wide positive responses as
an alternative program and complete maintenance activities that can not be fully done by the
hospital

Keywords: Treatment Compliance, Self Help Group, Cancer, Acute Lymphoblastic Leukemia, Non-State Community
Tayammum Pack reduce Number of Bacterial Colonies  
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ABSTRACT

Patients hospitalized could experience spiritual distress for praying because of ablutions obstacle. One of holistic care is fullfill of spirtual needed patients. One of alternative to ablutions is tayammum pack (dust made of pure clay). Unfortunately, there are many differences perception that dust as ablutions for patients. The aim of this study to understand the effect of tayammum pack used on skin hygiene. Study design used one-group pre-experimental pre-post test design. Sixteen patients participated on this study. Paired t-test analyzed showed t = 2,340 with significance level 0,034 (p <0,05). There was significant effect that used from tayammum pack on skin hygiene. Average number of bacterial colonies (colony forming units 218.44) on the skin after application packtayammum.

Key word: spiritual distress, tayammum pack, skin hygiene and bacterial colonies.
Team Assignment Method in Improving Nurse Performance in Hospital

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ABSTRACT

Background: Nurse performance is part of a component that contributes to improving hospital service quality. Problems in hospitals are still many hospitals that have problems of nurse performance, especially in RS Cirebon Indonesia. One solution is the application of team assignment methods in nursing care. The purpose of this paper is to analyze the influence of team assignment method in improving nurse's performance in hospital through cross sectional research design. Result: there is overall influence of team assignment on nursing performance p = 0.000, while elements in team assignment also have influence, among others; planning p = 0.001, organizing p = 0.067, briefing p = 0.000, and supervision p = 0.000. Conclusions: The performance of hospital nurses can be improved through the application of team assignment methods in nursing care.

Keywords: Team Assignment Method, Nurse Performance, Planning, Organizing, Direction And Supervision
The Barriers and Strategies of Communication among Student Nurses during Cross-Cultural Nursing Care Practice

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ABSTRACT

Background: Communication is a very essential aspect of cross-culture care nursing practice. Nurses will meet some obstacles in the situations where they do not communicate as their patients’ language, and it will lead to the poor quality of nursing care. Objective: The purpose of the study is to explore the student nurses’ experiences in communication during the cross-culture care nursing practice in a general hospital. The design is qualitative descriptive exploratory study. Semi structured interviews and open questioner were conducted with eight students nurses from Indonesia and Thailand who participated in the cross-culture nursing practice program. The data were analyzed thematically. Result: There are three themes that emerge as the findings of the study, these are: the barriers of communication, the strategies of communication and factors affecting communication. Conclusion: Students nurses have made creative strategies to communicate with the patients who have different background of culture. It is important for every school of nursing to ensure that the prospective of nurses has been completed with sufficient knowledge and skill of cross-culture communication. It is in order to give high quality of nursing care for the patients from the different cultural and guarantee the readiness of nurses in facing the challenge of ASEAN Community.

Keywords: Student nurses, communication, cross-cultural nursing care
The Correlation Between Brand Awareness and Brand Equity of Outpatient in RSIA Nun Surabaya

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ABSTRACT

Background: The effort to build awareness in the minds of consumers of a particular brand is an important part that needs to create the uniqueness of the brand. Objectives: This study aims to analyse the correlation between Brand Awareness and Brand Equity of outpatient in RSIA Nun Surabaya. Results: The results of this study shown that there are correlation between Brand Awareness and Brand Equity of outpatient in RSIA Nun Surabaya (p = 0.000). Conclusion: Brand Awareness correlated with Brand Equity of outpatient in RSIA Nun Surabaya.

Keywords: Brand Awareness, Brand Equity, Hospital
Effectifity of 6 Weeks Progressive Plyometrics Training on Badminton Player’s Agility

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ABSTRACT

Background: badminton is one of favorite sports by the community. Improved performance is influenced by technical play and physical abilities of athletes. One of the important skills in badminton is agility. agility can be achieved by improving balance and strength of lower limb. plyometric exercise can increase power of lower extremity. A gradual, progressive, and measurable exercise improves athlete performance and reduces risk of injury. Objectives: Purpose of this study are to observe 6 weeks progressive plyometric training on improving ability of agility in badminton players. Method: This research is Quasi-eksperimental study, pre and post test with control group design. 32 badminton players as respondents, sixteen players done progressive plyometrics training, and others as a control group. Training was conducted for 6 weeks, three times a week. Agility performance was measured by Illinois Agility Test. Results: Plyometric group shows agility improvement 1.17 faster than control group, with an average 1.35 second significant improvement after 6 weeks training. Conclusion: 6 Weeks Progressive Plyometric Training improves overall agility in badminton players and could become training design to improve skills.

Keywords: Progressive, Plyometrics, Training, Agility
The Effect of Acrylamide on Robusta Coffee Toward Blood Pressure, Urine Production and Renal Histopathological Change on White Male Rats

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ABSTRACT

Background: Coffee is one of the popular drinks whole the world. Coffee’s contents are grouped into antioxidant (caffeine) and carcinogenic (acrylamide) agents. The mechanisms both of antioxidant and carcinogenic are contradicted in resulting the depiction of blood pressure, urine production and renal histopathology either protecting or damaging. Objective: To know the steeping effect of Robusta coffee (Coffea canephora var. Robusta) towards blood pressure, urine production and renal histopathology change on white male rats. Method: True Experimental, Post Test Only Control Group Design. Steeping Coffee with certain doses 0,36ml/day; 0,72ml/day; 1,44ml/day and 2,16ml/day were given orally for 28 days. The data analyzed by One Way ANOVA, Tukey, correlation, and regression. Result: The Steeping of Robusta coffee was able to causing an alterations of renal histopathology which characterized by tubular tyroidisasi (p=0,002) with optimal doses was 1,14 ml. The correlation values (0,774) showing strong correlation, whereas regression test influenced in the amount of 57,6%. Steeping coffee could increase blood pressure and urine output significantly (p=0,000) with optimal dose was 2,16ml/day. Each correlation value was 0819 and 0859 that showed a significant correlation, each regression test showed the influence of 67% and 92.1%. Conclusion: The Steeping of Robusta coffee increased the alterations of renal histopathology were characterized by tubular tyroidisasi, could increase blood pressure and urine output in white male rats.

Keywords: acrylamide, robusta coffee, urine production, blood pressure, renal histopathological
The Effect of Exercise Therapy on Pain Intensity in Mothers After Sectio Caesarea

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ABSTRACT

Sectiocaesarea is the last option for saving the lives of mother and foetus if vaginal delivery faces obstacles. Sectiocaesarea action may result in complications of pain that is felt due to tissue damage. Post-caesarian section pain is acute in nature and requires immediate treatment as it may cause restriction in the everyday activities and disturb the recovery process. This research was intended to find out the effect of exercise therapy on pain intensity in mothers after sectiocaesarea. Exercise therapy is done once every two hours with eight counts and five to ten repetitions for four days when undergoing hospital treatment. This research used quasi-experiment method with pre- and post-test control group design. The samples of this research were divided into two, one of which was a treatment group with exercise therapy treatment that consisted of 25 samples, and another one was a control group with early mobilization that consisted of 25 samples. The pain intensity was measured using VAS (Visual Analog Scale). According to the results of the test of pain intensity in two groups of mothers after sectiocaesarea, there was a difference with a value \( p = 0.009 \) \( (p < 0.05) \). It was concluded that exercise therapy can reduce the pain intensity in mothers after sectiocaesarea. It is suggested that future researchers include examination of abdominal and back strength, which serves as the main exercise for exercise therapy.

Keywords: post-caesarean section, exercise therapy, pain intensity
The Effect of Ginger (*Zingiber Officinale Roscoe*) Extract to The Number of Neutrophil Cell in Incision Wound of White Rats (*Rattus Norvegicus*)

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ABSTRACT

**Background**: Wounds is a discontinuities of tissue. Incision wounds is a wound that made by clean pieces use sharp tools. Wound healing process through three phases, inflammation, proliferation, and maturation. Inflammation phase marked by the activity of neutrophils cells. Nowadays, demand of herbal plants increase, it were used as an alternative therapy. One of the herbal plants in Indonesian is ginger (*Zingiber officinale roscoe*). This plant contain oleoresin, gingerol&shogaol that have a role as antiinflammation. **Objective**: The study purpose was to analysis the effect of ginger (*Zingiber officinale roscoe*) extract to the number of neutrophil cell in incision wound of white rats (*Rattus norvegicus*). The method was randomized posted-only control group design. There were 30 male rats (*Rattus norvegicus*) grouped on control and treatment group. Control group divided into three groups (KK1, KK5, KK10) and also treatment group divided into three groups (KP1, KP5, KP10). Control group just given CMC 1% peroral without ginger (*Zingiber officinale roscoe*) extract, the treatment group given ginger (*Zingiber officinale roscoe*) extract 1 g/kg body weight. The data was analyzed by Kruskall Wallis test and then continued to Mann-Whitney U test. **Result**: Based on Kruskall Wallis test, obtained result that there was a significant difference with p value = 0.000 between control and treatment group. **Conclusion**: The conclusion of this study was giving ginger (*Zingiber officinale roscoe*) extract can reduce the number of neutrophils cell in incision wound of white rats (*Rattus norvegicus*).

**Keywords**: Ginger (*Zingiber officinale roscoe*) extract, neutrophil cell, incision wound
The Effect of Black Cummin Extract (*Nigella sativa Linn*) in Spatial Memory Performance on Menopausal Model of Rat

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ABSTRACT

**Background**: The loss of the ability for learning and memory is a prominent feature of dementia, which affects millions of menopausal women all over the world. *Nigella sativa*, is a herbal medicine known to have estrogenic, antioxidant and neuroprotective effects thought to improve memory function in dementia. **Objective**: This present study investigated the effect of *Nigella sativa* extract (NS) administration on the spatial memory performance (SMP) of menopausal model of rat. **Methods**: Experimental with post test only control group design. Bilateral ovariectomy (OVX) was performed in all rats. Two weeks post OVX, the rat has a hypoestrogen condition. There were 6 experimental groups namely OVX group as control and 5 groups of OVX rats treated with NS (OVX +NS) with each dose of 1.25; 2.5; 5; 10 and 20 mg/kgBB. NS were administered after 2 weeks post OVX by intragastric gavage daily for 4 weeks. After NS administered, SMP was evaluated of each rat for 6 consecutive days using Water Morris Maze (WMZ). The time latency to reach the hidden platform was recorded. **Result**: On the sixth day of practice, the mean of time latency to reach the hidden platform by OVX+NS group with dose 1.25; 2.5 and 5 mg/kgBB were shorter than control group but not significant (P>0.05), while OVX+NS group in dose 10 and 20mg/kg were longer than control group (P>0.05). **Conclusion**: NS extract could not increased the SMP of OVX rats. Probably because NS is more effective to use since pre-menopause

Key word: *Nigella sativa* extract; menopausal model of rat; spatial memory performance
The Effect of Healthy Breakfast on Learning Concentration of Smp Muhammadiyah 06 Dau Malang Students

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ABSTRACT

Healthy breakfast is a complete morning menu consists of first food, side dish, vegetables and fruits and also drinks. Healthy breakfast provides students cognitive performance and gives energy for brain while learning process like learning concentration. Learning focus is an attention centred process and an effort of exploration and knowledge transfer from learning sources. This study aimed to determine the effect of healthy breakfast on junior high school students learning concentration. This study used a pre-experimental One-group pre-post test design. This study conducted on 21 and 22 September 2016 at SMP Muhammadiyah 06 Dau Malang. The number of samples in this study was 21 students taken with purposive sampling. The research instrument is a concentration test Army Alpha. Paired t test is used to analyse the data. Based on the Paired t test using SPSS program, the value is t = -2.251 with a significance level of 0.036 (p<0.05), the Sig. (2-tailed)< significance level (α) and can be concluded that H1 is accepted, which means that there is the effect of healthy breakfast on students learning concentration and the differences between the average score of focus level before and after consuming healthy breakfast are 0.71. The results showed a significant effect of consuming healthy breakfast on learning strength. The mean score on the degree of focus is increased compared to the mean score before consuming a healthymeal.

Keywords: Healthy Breakfast, Learning Concentration, Junior High School Students
The Effect of Massage Intervention Towards Body Weight Enhancement in Baby 0-12 Months

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ABSTRACT

Background: Massage had widely known as a solution to facilitate baby growth and development which impact on optimizing blood flow, normalizing heart rate, maintaining digestion, and improving immunity. Massage intervention will preserve the adequate nutrition by increasing the absorption of macronutrient and micronutrient by stabilizing basal metabolism and induce the insulin and adrenalin secretion and prevent the cortisol secretion. The comprehensive massage which facilitated by the mother will contribute to avoid undernutrition and support the normal development during the first year of baby’s life. Baby massage intervention will enhance the bonding and emotional support between babies and mother.

Purpose: The purpose of the study had identified the effect of massage intervention towards baby weight enhancement in the first year of baby’s life.

Methods: A quasi-experimental study with total sampling method had conducted from January to February 2014 at the sub-district area in Malang regency named Ngantang. A total of 83 babies demographic data had assessed by completing body weight measurement before and after the massage intervention. The moderate and light pressure massage had applied during 15 minutes baby massage intervention once a week in one month. Descriptive statistics and independent T-test had used for analyzing the data.

Outcomes: The results had provided the basic data related to baby weight enhancement before and after baby massage intervention. The weight enhancement result had surpassed the minimum standard of weight gain in one month. This result had shown that baby massage intervention supported the weight gain enhancement in baby 0-12 months old. Thus, this result had supported the evidence-based practice in assisting the baby mothers to provide baby massage regularly during the first year of baby’s life.

Keywords: massage intervention, baby weight enhancement.
Effectiveness of Baby Spa on Baby Quality Improvement Under 1 Year

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ABSTRACT

Sleep is one of stimulation for brain growth. Approximately 75% of growth hormone is removed when the baby is asleep. High levels of the growth hormone. This god has the task of stimulating bone and tissue growth, and regulates the body's metabolism, including the baby's brain. Sleep has a role in increasing the baby's immune to infection. If the sleep is disturbed, the levels of white blood cells in the body will decrease and result in the effectiveness of the immune system is also decreased, so the baby easily sick and growth was disrupted. The aim of this research is to know the differen
cence of infant SPA to improve the quality of baby sleep, where there are 2 experimental groups given different spa time interval, the first group is given for 1 week once for 10 samples and the second group is given in the span of 3 days once for 2 week on 10 samples. This research uses research method with quasi experiment approach and pre post test group design design. Baby sleep quality was measured using a BISQ (Brief Infant Sleep Questionnaire) questionnaire. According to the result of sleep quality leve
l at two, there is difference with value p = 0.002 (p = <0.05). It was concluded that Infant Spa with intensity 3 times a day can improve sleep quality in children with severe sleep disorder.

Keywords: Baby SPA, Baby Sleep Quality, Sleep Disorders
ABSTRACT

Background: Joint pain is common among elders in the community and it is a major cause of disability. Joint pain can have multiple causes, as a reflective of the diverse joint diseases, which result from inflammation, cartilage degeneration, crystal deposition, infection, and trauma. Some of alternative pain management are applying red ginger compress and warm compresses therapy. The mechanism in reducing pain, both of these therapies are through cutaneous stimulation. This study aim was to determine the differences in the effectiveness of red ginger compress and warm compress therapy to reduce joint pain among elders. Method: This study used Quasy-experimental with two group pre-posttest design. The 20 elders with joint pain that fits the inclusion criteria from a Public Health Center in Malang was used as sample population. The simple random sampling was used to divide sample into 2 groups, intervention groups/red ginger compress therapy group (n= 10) and control group/warm compress group (n= 10). Data were analyzed using independent t-test. Result: The results showed that the two group indicate there were a decline of pain scale beforeand after intervention which red ginger compress can occupied declination of pain scale from average 6.5 to 2.5. of Independent t-test between red ginger compress and warm compresses sig value 0.037 (p <0.05), indicate that there were a statistically significant different in effectivereducing joint pain scale in elders. Discuss: Red ginger had active ingredients such as gingerol, shogaol, and zingerone which has heat effect, anti-inflammatory and analgesic which can decrease joint pain more quickly than warm compress. Elderly were advised to use red ginger compress as an alternative management to reduce joint pain.

Keyword: red ginger compress, warm compress, joint pain
Effectiveness of Simulation and Demonstration Methods in Handover Implementation in Hospital (A Pre-Experiment Design in Pontianak Hospital)

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ABSTRACT

Background: Problems occurring during implementation of handover is a common issue found in hospitals. One of the impacts of problems related to handover is patient safety and the quality of nursing care. Therefore, providing education and training through methodical approaches for nurses is well worth considering. The Purpose of this paper is to explain the effectiveness of simulation and demonstration methods in training of effective SBAR communication on the implementation of handover in hospitals. Accordingly, a research with a Pre-Experimental design within Pre-Post Test design was conducted at hospitals in Pontianak. Result: there is a difference in average value of handover implementation after and before training with simulation method, with attitude value 0,049 (P <0,05), psychomotor 0,032 (P <0,05). While in demonstration method with P <0,05 at knowledge as a sub-variable (P = 0,030) and psychomotor (P = 0,002) the mean of rank is 19,18. Conclusion: when applied in effective SBAR communication training in handover implementation, demonstration method is more effective than simulation method. Additionally, a training with those both methods will be more effective if accompanied by supervision and motivation.

Key words: demonstration, handover, SBAR, simulation
The Effectiveness of Supportive Therapy on The Family’s Burden and Stress in Caring Patient with Mental Disorder

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ABSTRACT

Background: Severe mental disorder has an impact on the family, the environment, the community, even the government, and the most feel is the family, because the family is the person who lives together with the patients. The main problem in the family is the burden and stress in caring them. Objectives: The purpose of this study is to see the effectiveness of supportive therapy on the family’s burden and stress for caring the patient with mental disorder at home. The research design used was quasy-experiment pre-post test with control group. The sample in this study is family who caring the patient with mental disorders at home, that according to the inclusion criteria, with a sample size was 24 respondents. Results: The results showed that supportive therapy effective to reduce the burden and stress felt in the family, with p-value=0.000. Conclusion: Every family who caring the patient with mental disorder must feel the burden and stress, so it is need to cooperate with the others to reduce it, such as all the family members, the environment, Puskesmas, and the Government.

Keywords: Effectiveness, Supportive therapy, Burden, Stress, Family, and Mental disorders
The Effects of Binder on the Physical Characteristic of Squeezed Rhizome of Kaempferia Galanga L Lozenges

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ABSTRACT

**Background:** Thelozenge is one of the drugs to overcome a sore throat. This contained an active ingredient can be either a synthetic or herbal materials. aempferiagalanga L is a plant medicinal that able to use as a cough and sore throat reliever. So, its potential to be made be lozenges. Lozenges are compressed tablets and to formulate it must be using the binders. **Objectives:** This study was to investigate the effect of the binder to the physical characteristic of squeezing rhizome of Kaempferiagalanga lozenges using mannitolbase. The binder used were gelatin, Hydroxypropylmethylcellulose (HPMC)1290 cps and Polyvinylpyrrolidone (PVP) K30 at 1%, 2%, and 3% concentrations. **Methods:** The squeezed rhizome of Kaempheriagalanga L was dried using mannitol. The lozenges were prepared by a wet granulation method and compressed by using a hydraulic press at 2-ton pressures. Lozenges had been evaluated, including hardness, fragility, and dissolves time of lozenges. **Conclusion:** Lozenges used the Gelatine and PVP K30 at a concentration of 2% and 3%, both was well within the range. While the lozenges used the HPMC 1290 cps provides good results at a concentration of 3%. All parameters are dependent on the type, quality and concentration of a binder. Keywords: Kaempferia galanga; Gelatin; HPMC 1920 3 cps; PVP K-30; wet granulation; lozenges
The Negative Behaviour Effects of Playing Gadget of Elementary School Children in Urban and Rural Environment

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ABSTRACT

Background: The existence of gadget is like the two sides of a coin. On one side, it brings benefits to our life, but on the other side, it facilitates negative behaviour impacts to its users, and the patterns for rural children may be different than those of urban. Objective: This study aimed to investigate the negative behaviour effect of playing gadget of elementary school children in urban and rural areas of Malang, Indonesia. Method: Information regarding characteristic of playing gadget and behaviour were collected via a self-administered questionnaire from January to June, 2017. This study included 355 subjects of urban and rural elementary school children aged 7-11 y.o in Malang, East Java, Indonesia. Result: A total of 100% of subjects reported to be using gadgets, the mean (±SD) of age start using gadget was 2.63±0.548 y.o Overall, 3.4% subjects had started using gadget in less than 2 y.o, 29.9% subjects had started using gadget in 2 until 5 y.o, and 66.8% were more than 5 y.o. In addition, 13.5% of the subjects reported >2 hours/day of total gadgets usage duration, exceeding the international recommendation of <2 hours/day of screen time. The statistically data (logistic multinomial regression) show that earlier age using gadget especially watching movies had negative impact in behaviour (p < 0.000) than playing games. Conclusion: This suggests that, the trend of earlier using gadget which may contribute to negative behaviour, is found to be prevalent in urban (26.3%) than rural areas (13.6%). Both residence and age start using gadget statistically significant affect the child's negative behaviour (p 0.040; p<0.000).

Keywords: urban; rural; behaviour; gadget; elementary school.
The Influence of Knowledge Levels Correlation Toward Self-Medication of Paracetamol drug

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ABSTRACT

Background: Our society use self-medication as majority effort to overcome health issued. Based on Social Economic National Survey (2011), Statistic Center Agency recorded that 66% of the ill person in Indonesia using self-medication, this number a lot higher compared than the percentage society which taking outpatient medical (44%).

Metodology: This research using analytical observation method with cross-sectional study approach, to determine the effect and knowledge level correlation toward self-medication behavior of Paracetamol medicine. Results: There is an influence of knowledge on self medication behavior shown by r value counted outnumber than r table such as 0,301 > 0,213, also the significantly value 0,006, R square 0,130, regression equality Y= 1.289X-1.815, 70% having better knowledge and 53% with positive action.

Conclusion: The presence an influence of knowledge level correlation toward self-medication of Paracetamol drug onto Medical student, University of Muhammadiyah Malang.

Keywords: Knowledge, paracetamol, self-medication
The Influence of Peer Counselor Training on Knowledge, Attitudes and Skills of Central Committee of Student Health Information and Reproductive Health Consultation (PIK-KRM)

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ABSTRACT

Background: Nowadays, the goal of The Millennium Development Goals (MDGs) to improve maternal health is one of the priorities of many countries. The Indonesian Government, by the National Family Planning Board (BKKBN), has followed up by monitoring and evaluating programs which is realized by providing technical guidance resilience in young people through Generation Planning program and developing Pusat Infomasi dan Konsultasi Remaja dan/atau Mahasiswa (PIK KRR/M). The government hopes through PIK programs the teens / college students can help to cope with their peers complex problems. The solutions to improve the role of peer counselors are increasing the capacity of knowledge, attitudes, and skills through the training of peer counselors.

Objective: To determine the effects of peer counselor training on knowledge, attitudes, and skills of PIK-KRM board in Faculty of Health, University of Muhammadiyah Malang.

Methods: The study was a Quasi - experiment with methods of pre-test and post-test nonequivalent control group. Participants of this study are the board of PIK KRR/M amount 80 students as sampling The sampling technique saturated Retrieval of data using questionnaires and observation checklist BKKBN guidelines already tested the validity and reliability. Statistical test will be used to determine the measurement of knowledge, attitudes and skills between before and after treatment was with paired t - test. While the statistical test used to see the difference scores of knowledge, attitude and skills in the treatment group and the control group is using independent sample t - test. Meanwhile, to determine the effect of training on the knowledge, attitudes and skills students PIK KRR/M board is to use a simple linear regression.

Results: Based on the regression results of the effect of peer counselor training showed a significance value of 0.000 ( P <0.05 ) , so it can be concluded that the provision of training peer counselors have a significant influence ( significant ) to the knowledge, attitudes and skills (post-test) board students PIK KRR/M. Results of independent t test showed a significance value of P < 0.05 means that there is a difference Ho rejected scores of knowledge, attitude and skills of PIK KRR/M board at the time of post-test, between control and treatment groups.

Conclusion: Training peer counselors can improve knowledge, attitudes and skills of PIK KRR/M board in order to do the peer counseling about TRIAD KRR (Sexuality, HIV/AIDS, and Drugs).

Keywords: peer counselors, knowledge, attitudes, skills, training, PIK-KRM board, reproductive health students
The Influence of The Role of Decision-making The Head Room Against The Compliance Of Nurses in The Implementation of Hand Hygienein The Hospital (Cross Sectional Design in Pontianak Hospital)

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ABSTRACT

Background: One of the goals of patient safety is to lower the risk of infection with hand hygiene. The Act of hand hygiene is a simple but effective to measure in protecting patients from the incidence of infection. The facts there are still have nurses who are not obedient in the performance of hand hygiene. The role performed by the head room is expected to motivate and improve compliance hand hygiene in the implementing by the nurse so the quality and the indicators of the quality of the hospital can be increased. The purpose of this paper is to explain the influence of the Role of decision-making the head room against the Compliance of nurses in the implementation hand hygiene. Research used descriptive analytic with Cross Sectional Design approach carried out in the hospital Pontianak. Sample 146 Diploma and profession students, at least one-year working period. The data analysis used chi-square. The results showed that there was a meaningful relationship between the role of the decision-making of the head room against the compliance of nurses in the implementation hand hygiene (p=0.001), with a value of entrepreneur roles is 0.001 (P < 0.05), negotiators roles0.001 (P < 0.05), resource allocator roles 0.009 (P < 0.05), and disturbance handler roles is 0.001 (P < 0.05). Conclusion: the role of decision-making of the head room is one of the factors that influence compliance hand hygiene in the nurses’ implementation, with the role of head room made nurses increase the compliance. Thus the indicator to the quality of patient safety in the hospital can be achieved.

Keywords: Hand hygiene, Nurses Compliance, The Role of decision-making.
The Relationship Between Retinopathy Based on Direct Ophthalmoscope Examination with Cognitive Impairment in Hypertensive Patients

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ABSTRACT

Background: Hypertension is a chronic disease which is characterised by increased systolic blood pressure ≥ 130 mmHg and diastolic blood pressure ≥ 90 mmHg. Uncontrolled blood pressure could later result to the narrowing of the arteriole wall, which can interfere any organ vascularization. One of the complications of hypertension is retinopathy, which could affect cognitive function. The only blood vessel that we can observe directly from direct ophthalmoscope examination is the branches of artery or vein centralis retina.

Objectives: This study assesses the correlation between retinopathy and cognitive impairment in hypertensive patients.

Method: This was an assosiative study with a cross sectional design which involved subjects who had minimum experience of 5 years chronic hypertension. They were between ≥ 18 years old and ≤ 65 years old, who came to the renal hypertension or neurology clinic at Cipto Mangunkusumo hospital in the period of September - November 2016. The subjects must not have had any history of diabetes melitus, stroke, intracranial infection or tumor, head injury, parkinson, epilepsy and depresion. We used the MoCA-INA, TMT A&B and the Grooved pegboard for cognitive function testing. Retinopathy was assessed by using Heine mini 3000 ophthalmoscope.

Result: A total of 47 subjects met the inclusion study consist of 27 (57.4%) woman and 20 (42.6%) man, and the median age was 57 years. The proportion of cognitive impairment were 45 (95.7%) subjects, predominantly woman 26 (55%). Memory was the most affected domain of cognitive impairment, with 44 (95.7%) subjects affected. Many subjects had mild retinopathy which were characterized by arteriole-venule narrowing and arteriole-venule nicking. Statistical analysis using the Fisher test did not show any significant correlation between retinopathy and cognitive impairment in hypertension patients (p= 1,000).

Conclusion: There were no significant correlation between retinopathy with cognitive impairment in hypertensive patients.

Keywords: Hypertension, retinopathy, cognitive impairment
The Relationship of Family Food Security with The Nutritional Status of Toddlers After The Eruption of Mount Bromo in Malang Regency

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ABSTRACT

Background: The eastern part of Malang Regency is a supporting area of agriculture, among others in District Poncokusumo, Pakis, Jabung, and Tumpang. During Mount Bromo issued volcanic ash in December 2015 - February 2016, Tumpang and Poncokusumo areas feel the impact of volcanic ash. This reduces food availability, food access, and food consumption, thus disrupting food security over long periods of time. In emergency situations due to natural disasters of volcanic eruptions and conditions of food security disturbances, the most vulnerable groups have nutritional problems and health problems are under five years old (toddlers). The purpose of this study was to determine the relationship of family food security with the nutritional status of toddlers after the eruption of Mount Bromo in Malang regency.

Objectives: This research uses observational design with cross-sectional approach. The sample used was 96 families with toddlers. Sampling technique using quota sampling. Instruments for measuring family food security using modified questionnaires from the USDA. While the data of nutritional status of toddlers obtained through “KartuMenujuSehat” (KMS).

Results: More than half of respondents (76%) have high family food security and more than half of respondents (87.5%) have good nutritional status. Spearman correlation test results obtained p-value of 0.04 <(α 0.05).

Conclusion: There is a relationship of family food safety with nutritional status of toddlers with the correlation coefficient (r) = 1.000 means have strong relationship strength.

Keywords: food security, nutritional status, toddlers
The Role of Probiotics in Inflammatory Responses in Critically Ill - Burn Patients (A Randomized Clinical Trial)

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ABSTRACT

Severe burn patients are one subset of critically patients in which the burn injury increases the risk of infection, systemic inflammatory response and sepsis. Impairment of intestinal barrier function and increased translocation of bacteria to the systemic blood flow contribute to the emergence of sepsis in burn patients. Oral probiotic administration has been advocated for treatment dan prevention of diverse range of infection disease by modulating the host immune reponse. Twenty three burn patients with burns involving more than 15% total body surface area (TBSA) were randomized in a prospective, double-blind, non-placebo clinical trial assigned to receive mono and multistrain probiotics (Lactobaccilus and Bifidobacteria) once daily for consecutive fourteen days. Laboratory measurements of Leucocyte and Neutrophil were done on days 4 dan 19. Clinical outcomes including incidence of diarrhea, infection, and mortality were also recorded. There was no incidence of diarrhea and incidence of sepsis and also mortality were similiar between two groups during this study. Multistrain probiotics reduced significant level both of leucocytes and neutrophil during this study (P < 0,05) with significant differences between two groups only in neutrophil level. Administration of monostrain and multistrain probiotics to burn patients caused better clinical outcomes and reduced level of inflammatory parameters (leucocyte and neutrophil). It might be considered as an adjunctive therapy in the treatment of burn patients to treat infection.

Keywords : Probiotics ; Burn patients ; Leucocyte ; Neutrophil
Type 2 Diabetes Mellitus Risk Factor Prediction Score Related to Blood Glucose Level in Trimester 2 and 3 of Pregnancy

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ABSTRACT

Background: Based on data from IDF (2016) every 6 seconds every person dies due to DM. Of the seven pregnancies, one is affected by gestational diabetes. And predicted by 2040, 1 in 10 adults suffer DM (642 million). Based on the very poor data, it is very urgent to do prevention as early as possible, even before the baby is born during pregnancy. Objectives: To identify and analyze the value of DM type II risk factors and blood sugar levels in pregnant women of trimesters 2 and 3. This study involved 30 participants of pregnant women of trimester 2 and 3 who were given questionnaires of DM type II risk factors and measured Fasting Blood Glucose (FBG). Results: Results obtained with α 0.01 is 0.00 with r = 0.880 which means there is a significant relationship between DM type II risk factor and the level of Fasting Blood Glucose (FBG) which strong relationship. Conclusion: Expected follow-up of cohort studies, for pregnant women who have high risk factors and high blood sugar levels associated with the incidence of DM in pregnant women.

Keywords: risk factor, blood glucose, Type 2 DM, pregnant women
Use Of Simple Foot Elevator (SFE) Tools In Convenience Of Footwear Diabetes

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ABSTRACT

Background: Increasing the number of patients with DM, complications are also increasing, one of them is ulceration of the lower leg, with or without infection and cause damage to the underlying tissue, hereinafter referred to as diabetic foot (KD) or diabetic foot wound. In the world, the number of diabetic foot patients is expected to continue to rise. Objective: This study is to analyze the comfort of patients and nurses when performed wound care with a simple foot elevator (SFE) tool. This type of research is quasi experimental Pre and Post Test Without Control Design by creating a prototype called SFE. It was then tested on 30 DM patients with diabetic ulcer complications in the lower extremity and 12 nurses. The variables of this study were to measure the comfort of patients and nurses when using SFE through a questionnaire. Data processing research with Mann Withney test with significance level (α = 0,05) or CI = 95%. Results: Mann Whitney Test Result research on the use of SFE in diabetic foot wound patients that nurse comfort value in performing diabetic ulcer treatment p = 0.001, patient comfort p = 0.001 (p <α = 0.005). Conclusion: The use of SFE aids in the treatment of diabetic foot wounds can provide the comfort of nurses and patients. So it can be recommended as one alternative tool that can be used in wound care.

Keyword: Diabetic foot wounds, SFE, Comfort