



Abstract Proceeding

**International Seminar of Occupational Health
and Medical Sciences
(I-SOCMED) 2017**

"Traveler & International Worker Disease Update"



**FACULTY OF MEDICINE
MUHAMMADIYAH UNIVERSITY OF SEMARANG**

Semarang, 19th August 2017



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International Seminar of Occupational Health and Medical Sciences (*I-SOCMED*) 2017 “Traveler and International Worker Disease Update”

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PREFACE

More than one third of the world's death can be attributed to a small number of risk factors. Understanding the role of these risk factors is a key to developing a clear and effective strategy for improving global health. Many diseases are caused by more than one risk factor, such as poor sanitation and hygiene related to environment that affecting human health. Another risk factor like International travel and tourism can affect to the human health. The increasing of global-travelling has led to more frequent illness and diseases during travel that may spread to susceptible contacts. Moreover, the other global risk for disease or illness is occupational risks. Occupational risks leads to death and disability-adjusted life years in the world. It contribute 1,1 % of death, and 1,5 % disability-adjusted life years lost worldwide. People face numerous hazards at work, which may result in injuries, cancer, hearing loss, and respiratory, musculoskeletal, cardiovascular, reproductive, neurological, skin, and mental disorders. It is important for doctors and health professionals to recognize occupational and work-related diseases among their patients to prevent them from being permanently disabled by the disease and to enable affected workers to exercise their rights to compensation.

From the illustration above, The Faculty of Medicine, Muhammadiyah University of Semarang (Unimus), takes the initiative to build an international network through International Seminar of Occupational Health and Medical Sciences (*I-SOCMED*) 2017. The aim of seminar is to create a sustainable platform to tackle current health issues in occupational health and worker disease. This Seminar provides an excellent opportunity to establish of an international network in medical and health sciences to promote collaborative research. The seminar's major objectives are to discuss the topics relevant for the actual progress and current situation in occupational health, travel medicine, public health, environmental health, epidemiology and medical science.

The Program and Organizing Committees are grateful to everyone whose hard work made this seminar possible. Most of all, we are grateful to all of the authors who submitted their papers to this seminar, and to reviewers for their dedication in reviewing of submissions.

Chairman of the Organizing Committee

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OCCUPATIONAL HEALTH



ANALYSIS OF RISK FACTORS INCREASE BLOOD PRESSURE IN THE TEXTILE INDUSTRY WORKERS

Sumardiyono*, Hartono**, Ari Probandari*, Prabang Setyono***

*Department of Public Health, Faculty of Medicine, Sebelas Maret University, Surakarta,
Indonesia

**Department of Physiology, Faculty of Medicine, Sebelas Maret University, Surakarta,
Indonesia

***Department of Biology, Faculty of Mathematics and Natural Sciences, Sebelas Maret
University, Surakarta, Indonesia

ABSTRACT

The risk factors for high blood pressure are industrial noise exposure, age, body mass index, and length of exposure to noise. Exposure to noise is often found in industrial workers. Therefore, workers are at increased risk for high blood pressure. The purpose of this study is to investigate the association of noise level, age, body mass index, and length of exposure to noise with blood pressure on textile industry workers. This study was observational research with cross sectional design. The population were textile industry workers in Surakarta. The sample selection used purposive random sampling. Inclusion criterias were women, length of working at least one year, less disciplined use ear protection equipment. The total samples were 245 peoples. Statistical analysis used bivariate correlations and multiple linear regression. There was an association between all variables with blood pressure. However, on multiple linear regression test, length of exposure to noise excluded. Variables that associated with systolic blood pressure were the noise level ($p=0.026$), age ($p=0.002$), body mass index ($p=0.000$). Variables that associated with diastolic blood pressure were the noise level ($p=0.011$), age ($p=0.15$), body mass index ($p=0.000$). The risk factors for high blood pressure among industrial worker are the noise level, age, and body mass index.

Keyword: blood pressure, textile industry workers

OCCUPATIONAL HEALTH ANALYSIS IN MAMBAK VILLAGE, PAKIS ADJI SUB DISTRICT, JEPARA REGENCY

Musdalifa Mafhatul*, Saekhol Bakri**, Arwinda Nugraheni**, Diah Rahayu
Wulandari**, Dea Amarilisa**, Aras Utami**

* Undergraduate Student of Medical Faculty, Diponegoro University

**Departement of Public Health Science, Medical Faculty, Diponegoro University

ABSTRACT

Occupational health problems are still high in Indonesia. Mambak village located in Jepara Regency is an industrial area, with most of its people working as factory workers. This study aims to see the condition of occupational health in the village of Mambak, Sub District Pakis Adji, Jepara Regency. This was a descriptive research with cross sectional study design. Data collection was obtained by survey to work places in Mambak village. Research sample was taken by total sampling method. The research questionnaire used a control sheet from Puskesmas Pakis Adji, Regency of Jepara. There were 48 workplaces located in Mambak village, 60.4% of the largest businesses are furniture. The results showed that 72,9% working place formed of non permanent building, 92,6% workplaces without sewage channel, 87,5% workplaces with noise hazards, 100% without noise control. About 45.83% had no first aid infrastructure, all workers did not use a complete Personal Protective Equipment (PPE), Ear cover, clothes, and shoes were not used. Occupational risk factors was 100%, work-related diseases was 68.75% due to eye irritation and wound. Handling first aid work accident by giving red medication and in rinse water were 50%. Occupational disease in Mambak Village is still high. Work environments are not appropriate and occupational risk factors are still high. Prevention and treatment of occupational health in Mambak village is not compatible.

Keywords: Occupational health, Occupational disease, work related disease, Personal Protective Equipment

THE RELATIONSHIP BETWEEN MENTAL WORKLOAD WITH WORK STRESS ON HOSPITAL NURSES

Mella Anyndya Hernata*, Merry Tiyas Anggraini**, M. Riza Setiawan**

* Undergraduate Student of Medical faculty, Muhammadiyah University of Semarang

** Departement of Community Medicine Muhammadiyah University of Semarang

ABSTRACT

During their work, nurses have a mental overload. A nurse should have good communication to care the patient who has differentiated behavior and health condition. A bad communication between nurse and patient result in work stress to the nurse that potential lead to human error. This study aims to know the correlation between mental workload and work stress on hospital nurses. This study was an analytical observational study with a cross sectional approach, data was obtained in October-November 2016. The instruments used NASA-TLX questionnaire to measure mental workload and HRV uBioClip v70 to measure stress. Data was analyzed by Fisher's-Exact correlation test both univariately and bivariately. A total sample of 32 nurses who worked in hospital of Muhammadiyah Gubug. Bivariate analysis showed that from 14 nurses who had under load-optimal load, 8 (57,1%) of them are suffered to work stress. Whereas from 14 nurses who had over load, all of them (100%) are suffered to job stress. Statistical analysis showed a correlation between mental workload and job stress in nurses at hospital of Muhammadiyah Gubug ($p=0,003$). The results proved that mental workload has a significant correlation with job stress.

Key words: Mental workload, work stress, nurse

CORRELATION BIOMECHANICAL METHOD OF MANUAL MATERIAL HANDLING WITH LOW BACK PAIN

I Putu Sudayasa,* Muhammad Idris Ibnu I,** Mario Polo Widjaya***

*Department of Public Health Faculty of Medicine, University of Halu Oleo (UHO)

**Medical Education Study Program Faculty of Medicine, University of Halu Oleo

***Department of Traumatology and Emergency Faculty of Medicine UHO

ABSTRACT

Low back pain is feeling of pain in the lumbosacral and sacroiliac region, often spreading to the upper and lower limbs. Manual material handling (MMH) is still needed because it can be done in the limited space and dependent of physical activity. If MMH is not ergonomically used, it would cause tissue damage, due to excessive lifting load. The aimed of research is to determine the relationship of manual material handling with low back pain. The study design was observational analytic with cross sectional approach. Population were all of unloading workers in the Marine Nusantara Port, Kendari, as many as 268 people. The purposive sampling technique was used to recruit 120 respondents. Data was analyzed using Chi Square test, as well as alternative of Kolmogorov-Smirnov test. Results of study showed a correlation between manual material handling with the incidence of low back pain ($p= 0.003$). The other risk factor, such as age ($p= 0.537$), smoking ($p = 0.988$), exercise habits ($p= 0.854$), overweight ($p= 0.306$) did not significantly correlated with low back pain. It can be concluded that manual material handling is the determinant factor of low back pain, among Marine Nusantara Port, Kendari.

Key Words: manual material handling, biomechanical methodes, low back pain, unloading workers, physical activity, Nusantara Marine Port

THE INFLUENCE OF WORKING POSITION, WORKING PERIOD, AND DURATION OF WORK IN LOW BACK PAIN INCIDENCE AMONG PACKING WORKERS OF PT PHAPROS Tbk.

M. Riza Setiawan*, Merry Tiyas Anggraini*, Millati Rahmatika**

*Lecturer at Medical Faculty, Muhammadiyah University of Semarang

**Undergraduate Student of Medical Faculty, Muhammadiyah University of Semarang

ABSTRACT

Low Back Pain (LBP) is a phenomenon that is often complained of the elderly, but it was likely experienced by the young. This phenomenon is common in every job, especially the industrial workers are still using manpower in terms of handling the material. The transfer of material manually that is not done ergonomically will cause accidents. Position work that is continuous static result in health problems such as LBP which is interfering work productivity. The purpose of this study is to identify the influence between working positions, working period, and duration of work in low back pain incidence among packing workers of PT PHAPROS Tbk, Semarang. This study was an observational study with cross sectional design. The statistical analysis used Chi square test and Spearman correlation which includes univariate and bivariate analysis. The number of samples with random sampling techniques were 100 packing workers PT. Phapros Tbk Semarang in August-October, 2016. Most of workers complained of moderate pain (42%). The results of the bivariate analysis showed that the position of the work-related complaints LBP ($p = 0.000$). There was a significant correlation between working period with complaints of LBP ($p = 0.000$), and there was a significant correlation between the duration of work with complaints of LBP ($p = 0.000$). The results indicate that the significant correlation between the working position, working period, and duration of work with the complaint LBP. Working position is the most influence variable on the incidence of LBP. The importance of maintaining the position of the work, as well as effectively manage their work time so as to minimize the occurrence of LBP pain.

Keywords: working position, working period, duration of work, Low Back Pain

ASSOCIATION BETWEEN WORKING EXPERIENCE AND DYSLIPIDEMIA AMONG INDONESIAN SEAFARER

Ardhea Jaludamascena*, Dwi Retnoningrum**

*Lecturer at Medical Faculty, Muhammadiyah University of Semarang

** Departement of Clinical Pathology, Medical Faculty, Diponegoro University

ABSTRACT

Seafarers were exposed to many occupational hazards, such as accidents, infectious diseases, work-related stress, environmental stress and chronic diseases. Longer working experience means more exposed to these occupational hazards. Morbidity and mortality rate from chronic diseases tend to increase among seafarers. Dyslipidemia is one of independent risk factor of cardiovascular disease among seafarer. The aim of this study is to determine association between working experience and dyslipidemia among Indonesian seafarer. A cross sectional study was conducted on 157 Indonesia male seafarers who came to certified health care for their annual health examination from the beginning of January 2017 until the June 2017. The health examination data encompassed seafarer's age, height, weight, body mass index and lipid profile were collected. Seafarers were divided into two groups based on their work experience in sea each groups, then, categorized into with and without dyslipidemia subgroup. Dyslipidemia was defined as having two or more serum lipid profile abnormalities. The prevalence of dyslipidemia was 29.9%. Statistic analysis shown that longer working experience (more than 10 years) had more risk to have dyslipidemia about 3.5 times (95% CI = 1.66-7.59). There was association between working experience and dyslipidemia.

Keyword : seafarer, dyslipidemia, lipid profile, occupational health

SMOKE EXPOSURE AND OCCUPATIONAL RELATED WITH LUNG FUNCTIONAL CAPACITY IN COASTAL COMMUNITIES

I Putu Sudayasa,*Indra Dika Pratama,**Amiruddin Eso ,***

* Department of Public Health,Medical Faculty, University of Halu Oleo

** Medical Education Study Program,Medical Faculty, University of Halu Oleo

*** Department of Physiology, Medical Faculty,University of Halu Oleo

ABSTRACT

Fish curing industry is generally an informal industry that is managed by the community. Regulations on health and safety protection of the workforce and the surrounding communities have received less attention. This study aims to determine the association of smoke exposure and occupation with pulmonary function capacity in coastal communities Lalonggasumeeto village. This research was an analytic observational with cross sectional study. The sample size were 118 samples with consecutive sampling techniques. Data analysis was performed using chi-square test. This study found that respondents with exposure to smoke less than and until 8 hours/day was (52.5%) and respondents with exposure to smoke more than 8 hours/day was (47.5%). Respondents work as fish fumigation as much as 50%. Respondents with normal pulmonary function capacity was (46.6%) and respondents with abnormal pulmonary function capacity found (53.4%). The analytic results showed, that were smoke exposure and occupation (p-value = 0.000), associated with lung functional capacity. These result conclude that there were association of smoke exposure and occupation with pulmonary function capacity in coastal communities. Suggested, the workers should using personal protective equipment when performing fish fumigation and home ventilations were not adjacent to the fumigation place.

Keywords: lung capacity, pulmonary function, smoke exposure, coastal communities, occupation



PUBLIC HEALTH



SPATIAL ANALYSIS AND ENVIRONMENTAL FACTORS ASSOCIATED AGAINST CASE OF DENGUE HEMORRHAGIC FEVER (DHF) IN LIMBOTO DISTRICT, GORONTALO

Ririn Pakaya

Department of Public Health, Gorontalo University

ABSTRACT

Dengue Hemorrhagic Fever (DHF) was a disease caused by dengue virus. DHF transmitted by mosquito bites from *Aedes* genus, mainly *Aedes aegypti* and *Aedes albopictus*. DHF was emerging over the year and attacking all of age groups. It was related to the environmental condition and community behavior. Until now, the Incidence Rate (IR) of DHF from 1968 was increased. Mortality caused by DHF was categorized as high if CFR more than 2%. Therefore, there were 5 provinces that categorized on high CFR in 2014 such as Bengkulu, Bangka Belitung Archipelago, South Borneo, Gorontalo and Maluku. Gorontalo Province consisted of 5 regencies and Gorontalo Regencies increased dengue cases significantly, especially Limboto District i.e., 35 cases in 2012, 49 cases in 2013, 34 cases in 2014, and 40 cases by 2015 by 8 endemic counties. Objective of this study was to understand spatial distribution of DHF cases and analysis environment factor against cases of DHF in Limboto District. The method of study was observational used cross sectional study design supported by Geographic Information System (GIS) for spatial information. Main result by Poisson's regression test showed that the environmental variables for instance precipitation, temperature, humidity, and wind speed with DHF occurrence. Correlation analysis of environmental variables to DHF cases showed that only the humidity in the previous two months (lag2) ($P = 0.01$) had a significant but negative correlation with DHF cases.

Keyword: DHF cases, Precipitation, Temperature, Humidity, Wind Speed

STRATEGY ANALYSIS OF MUHAMMADIYAH GAMPING HOSPITAL FACING NATIONAL HEALTH INSURANCE

Ario Tejosukmono

Master of Hospital Management Postgraduate Program,
University of Muhammadiyah Yogyakarta

ABSTRACT

National Social Security System, Act Number 40 Year 2004 mandated that National Social Security System as National Health Insurance starting January 1, 2014. As a private hospital that follow the program, Muhammadiyah Gamping Hospital has to prepare strategies for it. This study aims to analyze the strategy of Muhammadiyah Gamping Hospital facing National Health Insurance. The analysis used a quantitative of Strength, Weakness, Opportunities, Threats (SWOT) analysis to determine the actual position of the hospital so it can choose the right strategies. Data collection using in-depth interview method, questioner, and document review. The sample of the research are 4 people who are the directors of Muhammadiyah Gamping Hospital. Quantitative SWOT analysis puts the hospital in quadrant III, which means that the hospital is in a position of having many weaknesses but has many opportunities, then they have to make a strategy changes. In this research there are many strategies that can be done. Some strategies are making Clinical Pathway, recalculate unit cost and utilization Hospital Information Technology and bridging with BPJS system. This study show that Muhammadiyah Gamping Hospital has to make a strategy changes according to the position of hospital in quadrant III.

Keywords: SWOT analysis; Hospital strategy; National Social Security.

ANALYSIS OF THE NATURE OF WORKS TO NEAR MISS EVENT AT CARING UNIT OF CIMACAN GENERAL HOSPITAL

Mugi Restiana Utami

Departement of Hospital Management,
University of Muhammadiyah Yogyakarta

ABSTRACT

Patient safety is an injury prevention system for patients by reducing the risk of adverse events associated with exposure to the diagnostic environment or medical treatment conditions. One of the factors that contribute to the patient's safety incident is the nature of work. The aim of this study is to analyze the nature of works on near miss event (NME) at Cimacan General Hospital. This research was a descriptive quantitative research using secondary data from incident report and related document. There were 7 reports of NME in caring unit at Cimacan general hospital. Data analysis used descriptive analysis. Result of descriptive analysis, 5 respondents (71,83%) was non complex treatment, 2 respondents (28,73%) was complex treatment. Six respondents (85,7%) did not comply on procedures, 1 respondent (14,3%) adhered to procedures. Seven respondents (100%) were present at the time of near miss. Analysis of the nature of work on NME is an uncomplicated treatment, non-compliance with procedure, and present at the time of NME.

Keywords: nature of work, near miss event, patient safety

EFFECTIVENESS OF HEALTH EDUCATION ABOUT COMMUNITY – LED TOTAL SANITATION (CLTS) ON BEHAVIOR HAND WASHING WITH SOAP (HWWS)

Susana Nurtanti

Nursing Academy of Giri Satria Husada Wonogiri

ABSTRACT

Hand washing is the most important basic technique in the prevention and transmission of infections, 80% of common infectious diseases and 45% of serious infectious diseases. The habit of washing hands with soap was part of a healthy lifestyle that was one of the three pillars of health development, namely healthy living behavior, the creation of a healthy environment, and the provision of quality health services and affordable by all levels of society. The students surveys result of HWWS behavior in Gumiwang Lor village people proved that from total 525 families, 489 (93%) of them did not wash hands with soap. Many efforts had been done to increase the community awareness and behavior of community-led total sanitation (CLTS). This research was conducted to analyze the effectiveness of health education application on community-led total sanitation (CLTS) behavior of hand washing with soap (HWWS) on health cadres in Gumiwang Lor Village. The method was one group research with pre test- post test design. The sample of research was total sampling. The sample was health cadres in Gumiwang Lor Village which there were 23 people. The research instrument used questionnaire. Data was analyzed by *t- test*. The *p-value of T paired* was 0.000. The *t-test* showed there was a difference of HWWS behavior before and after the application of health education about CLTS. There was an increasing behavior in hand washing with soap (HWWS) after receiving health education on community-led total sanitation (CLTS).

Keywords: Health Education, Community-Led Total Sanitation (CLTS), Handwashing With Soap (HWWS).

CLEAN AND HEALTHY LIFE BEHAVIOR (PHBS) IN NGADIROJO, WONOGIRI REGENCY

Nita Yunianti Ratnasari

Nursing Academy of Giri Satria Husada Wonogiri

ABSTRACT

Clean and Healthy Life Behavior (PHBS) was related to the improvement of individuals, families, society and health environment. Based on the data from the Ministry of Health in 2016, Indonesian households that practiced the PHBS only reached 55.6% and in Central Java reached 75,1 %. The data in Ngadirojo sub-district in 2016 founded that the total number of houses was 14,287 houses, which had been inspected for 2,244 houses, this data was used as a reference for this research. There are still some villages in Ngadirojo sub-district that have health problems related to PHBS. This study was conducted to know the description of clean and healthy life behavior of the society in the work area of Puskesmas Ngadirojo (KerjoLor and Ngadirojo Kidul Village) Wonogiri Regency, and it was descriptive quantitative research. All the population was heads of household (KK) which were in two research villages of the total 4,556 families. The sample collection used *total sampling method*, where the number of samples reached 1,129 KK in Ngadirojo Kidul and 1,365 KK in Kerjo Lor. The result achievement of PHBS was obtained by KerjoLor village (76,42%) and NgadirojoKidul village (82,75%). From these two villages, there were three PHBS indicators with the lowest value, there were non-smoking (41%), Heath Insurance membership (JPK) (46%), and Family planning program (KB) (52%). The highest PHBS indicators were clean water (99.5%) and healthy latrines (98.5%). PHBS achievement in KerjoLor village (76.42%) was still below than the national target, activating health cadres, providing continuous and comprehensive health education to the society and assisting the development of PHBS

Keywords: PHBS, Society, Families, PHBS Indicators.

FAMILY'S ROLE AND LEARNING ACHIEVEMENT OF ELEMENTARY SCHOOL'S AGE CHILDREN

Mita Apriyanti*, Anika Candrasari*

*Departement of Public Health Science, University of Muhammadiyah Surakarta

ABSTRACT

The academic demands for students are getting higher. In addition, home is the first growth's place besides the school. Families with affection, parenting pattern creates an environment that suitable for brain development, in which the family has a great influence on the learning process of children. Family members, especially mother, plays a big role in children's growth. The research's aim was to analyze the correlation between mother's perception about family's role and learning achievement of the children. It was analytical observational study with cross sectional approach and purposive sampling technique. Sample used 70 mothers and children who had met the criteria for restriction. Questionnaires and academic values were used as a measuring tool. Data analysis used Spearman correlation statistical test SPSS 18.0 for windows. From the data, it showed that there was no correlation between mother's perception and learning achievement of elementary school's age children with $p > 0,05$. The conclusion of this study was the learning achievement of the children was not only determined by the mother's perception factor but also determined by many factors. Parent's education, occupation, family's income and facilities at home affected the learning achievements of children.

Keyword: mother's perception, family's role, learning achievement, children, elementary school

STANDARDIZATION OF THE STOCK OF DRUGS AND EMERGENCY MEDICAL EQUIPMENTS IN THE CARE UNIT OF MUHAMMADIYAH GAMPING HOSPITAL

Irham Purnomo*, Firman Pribadi*, Irma Risdiana**

*Lecturer in Master Program of Hospital Management,
University of Muhammadiyah Yogyakarta

**Pharmacist in Muhammadiyah Gamping Hospital

ABSTRACT

Drug and medical equipment management in hospitals is one important aspect in management, in which management inefficiency in Drug and medical equipment would have negative impact, either medically or economically. The stock of drugs and emergency medical equipments was available in the treatment room of PKU Muhammadiyah Gamping Hospital, but there was no standardization of the type and amount of the drug and emergency medical equipment stocks. This study was qualitative study with an *action research* design. The efforts to develop standardization were done through observation method, in-depth interviews, focus group discussions, Delphi test and small group discussions. A number of action plans have been developed to standardize the stock of drugs and emergency medical equipments. The list of drugs and emergency medical equipments that have been made was proposed to the experts through Delphi test. After that, the result from Delphi test was reported to the Pharmacy and Therapeutics Committee (PTC) to be assessed. PTC assessment results included the approval of the 14 drug items 18 emergency medical equipment items to be stocked in the treatment room which would then be submitted to the Hospital Director for an approval and then passed as a decree. After the implementation has been fully carried out, then the evaluation was carried out using a standard checklist and the value obtained was 80%.

Keywords: emergency drug, emergency medical equipment, Delphi test.

DOCTOR BEHAVIOR IN FILLING THE MEDICAL RESUME SHEET IN BAGAS WARAS HOSPITAL, KLATEN

Anggit Budiarto,* Mahendro Prasetyo Kusumo,**Winy Setyo Nugroho**

*Bagas Waras Hospital, Klaten

**University of Muhammadiyah Yogyakarta

ABSTRACT

The hospital as one of the health service facilities is part of the health resources that are needed in supporting the implementation of health efforts. The writing of patient diagnosis is the responsibility of the treating physician and should not be represented. Based on the initial survey of Bagas Waras Hospital Klaten, found that resume forms was incomplete. The purpose of this research is to know the doctor's behavior on the filling of the in-patient resume sheet data at Bagas Waras Hospital, Klaten. This research is a qualitative research with case study approach. Respondents in this study were Specialist Doctor, Medical Record Officer and Hospital Director. Data was obtained from interviews, FGDs, observations and documentation and collected and grouped based on existing indicators, as well as based on existing facts and also on critical thoughts to obtain a weighted result. Based on the results of the doctor's observation through the medical resume sheet for 3 consecutive months which has been submitted to the medical record, it appears that medical resume filled by the doctor after the patient finished treatment is still low, from 217 files, which is incomplete as much as 125 with a percentage of 41%. This is due to lack of cooperation between doctors and nurses in filling medical resume. In addition, the incomplete medical resume is due to the non-operation of the Standard Operational Procedure (SOP) which regulates the filling of medical resumes, the absence of regulations, sanctions for doctors who do not fill the medical resume so doctors lazily fill medical resume. The doctor's behavior in completing the medical resume sheet is still low.

Keywords: Medical Resum, Behavior Physician

EVALUATION OF HYPERTENSIVE CRISIS CLINICAL PATHWAY IMPLEMENTATION IN MUHAMMADIYAH BANTUL HOSPITAL

Indriana Sari,* Sri Sundari*

*Master Program of Hospital Management, University of Muhammadiyah Yogyakarta

ABSTRACT

Intense competition among hospitals make improvements in the service quality. Clinical pathway is instrument to improve service quality. Hypertension is the third risk factor of death in the world and the leading in Yogyakarta. This study is to evaluate the implementation of hypertensive crisis CP in Muhammadiyah Bantul hospital. This study used mix research method with case study design. Quantitative was descriptive from CP documentation in medical record with total sampling and checklist ICPAT. Qualitative data from interviews and observations with purposive sampling. Content and quality of ICPAT dimension 1 (format) and dimension 6 (organizational roles) were good, dimension 4 (implementation) were poor and dimension 5 (maintenance) were moderate. Content of dimension 2 (documentation) was poor and quality was moderate. Content of dimension 3 (development) was moderate and quality was good. Compliance CP entered into the medical record is 28.57% and completeness of CP is 0%. CP implementation constraints were lack of time and consciousness filling CP, therapies didn't match with CP and application of evaluation results wasn't optimal. Compliance of implementation hypertensive crisis CP was poor. It necessary to be disseminated, training, regular evaluation and improvement facilitators of CP.

Keywords : evaluation, implementation, hypertensive crisis, clinical pathway

EXCLUSIVE BREAST-FEEDING BEHAVIOR ASSOCIATED WITH LACTATION MANAGEMENT DURING LABOR

Hema Dewi Anggraheny

Lecturer of Medical Faculty , Muhammadiyah University of Semarang

ABSTRACT

One of the factor that may be related to maternal behavior in exclusive breastfeeding is how lactation management during labor. The purpose of this study is to determine the relationship of lactation management during labor with exclusive breastfeeding behavior. The cross sectional study was conducted in Dukuturi Village, Tegal Regency, applying interview technique for data collection in October 2016. As many as 83 were recruited based on inclusion and exclusion criteria. Lactation management was measured using a questionnaire that had previously been tested for validity and reliability. Statistical test used chi square to explain the relationship of independent variable to dependent variable. The age average of respondent was 29 years old. Majority of respondent (74,7%) did not give exclusive breastfeeding. The chi square test showed that there is no significant correlation between rooming in, skin to skin contact ≥ 1 hour after delivery, explanation of breastfeeding process and techniques, the practice of breastfeeding techniques, early breastfeeding initiation, and infant and mother not separated more than 2 hours after delivery and exclusive breastfeeding. There may be other factors affecting exclusive breastfeeding behaviors, including maternal knowledge, family support, environmental influences, and so on. The average of delivery service provider is currently implementing good lactation management.

Keyword : lactation management, exclusive breast-feeding

IMPORTANT AND SUBJECTIVE NORM ADORTS GAY IN SEMARANG CITY

Nurina Dyah Larasaty,* Yanuarita Tursinawati,**

*Lecturer of Public Health Faculty, Muhammadiyah University of Semarang

**Lecturer of Medical Faculty, Muhammadiyah University of Semarang

ABSTRACT

Adolescents with a gay sexual orientation need to receive a great attention in cases of HIV / AIDS transmission. It is due to the sexual behavior in this class included in the category of risk behavior, one of which is through the anal sex. Anal intercourse is very risky in HIV transmission because the penis can scratch and tear the rectal mucous membranes, so that HIV can more smoothly enter the bloodstream. The purpose of this study is to explore the information about important and subjective norms of gay adolescents in Semarang City. This research used qualitative approach. Data collection was done through in-depth interviews with informants as well as field observations. The results of this study found that the important norm prevailing in the family associated with acceptance of sexual orientation of family members as gay according to most informants stated the rejection. However, a small percentage of informants thought the rejection of the family would turn into acceptance over time. In contrast to the subjective norms prevailing in the community, all informants argue that the community still strongly rejects the existence of this gay group. This is contrary to the norms of religion and social norms prevailing in Indonesian society.

Keywords: Important Norm, Subjective Norm, Gay

QUALITY MANAGEMENT OF HYPERTENSION TREATMENT IN POLICLINIC OF TLOGOSARI KULON PUSKESMAS

Siti Amaliah*, Harits**

*Departement of Public Health, Faculty of Medicine, Muhammadiyah University of Semarang

** Studenty of Faculty of Medicine, Muhammadiyah University of Semarang

ABSTRACT

Public Health Center is a First Level Health Facility that is responsible for carrying out health development in its working area, performing Health Effort (UKM) and individual Health Effort (UKP). Quality of health services is health services in accordance with professional standards with the utilization of natural resources, efficient, effective, within the limits, the ability of the government and the community and held safely in accordance with the code of ethics and satisfy customers in accordance with the level of satisfaction of the average population. Each Public Health Center will strive to position itself as best as possible in the eyes of customers to be trusted to meet the needs in the health field. Hypertension is a condition in which systolic blood pressure ≥ 140 mmHg and / or diastolic blood pressure ≥ 90 mmHg. Hypertension is one of the major causes of mortality and morbidity in Indonesia, and is often referred to as a "silent killer". Unconsciously sufferers experience complications in vital organs such as heart, brain or kidney. The aim is to know the compliance level of Tlogosari Kulon Public Health Center's doctor to Standard Operating Procedures (SOP) of hypertension handling in outpatient unit and patient satisfaction. This research was descriptive survey, method approach using cross sectional, the sample were two doctors at Tlogosari Kulon Public Health Center and twenty-three patients who had been suffere with hypertension in the Outpatient Public Service Unit of Tlogosari Kulon Public Health Center. The priority of Quality Problem of Hypertension Handling in Outpatient Services Using Matrix Problem Priority Method, is the lack of compliance doctors perform blood pressure checks. The analysis of problems used Paired Comparison Method. The alternative problem solving was 1)Procurement of two units tensimeter and make still pictures of blood pressure examination; 2)Using the tensimeter interchangeably and make poster of blood pressure examination; 3)Borrowing tensimeters from other poly and make flipchart of blood pressure checks. Then, the problem-solving decisions was procurement of two units tensimeter and make still pictures of blood pressure examination. The doctor's compliance of SOP, need to be supported by tensimeter.

Keyword : Quality of Service, Hypertension, Outpatient

THE QUALITY CONTROL OF INA-CBG'S CODING AS A CAUSE OF NEGATIVE CLAIM AT BAGAS WARAS KLATEN HOSPITAL

Veronica Retno Setyaningsih*, Mahendro Prasetyo Kusumo**, Arlina Dewi**

* Bagas Waras Hospital, Klaten, Jawa Tengah,

**University of Muhammadiyah Yogyakarta.

ABSTRACT

The pattern of payment that is applied by *Jaminan Kesehatan Nasional (JKN)* in advanced health facilities (hospitals) is a prospective payment pattern. Prospective Payment pattern known as casemix is a grouping diagnoses and procedures with reference to clinical characteristics which is similar and resource used or maintenance cost is similar. The grouping is done by software groupers. Bagas Waras hospital in making diagnosis grouping sometimes experiences the negative difference (loss) between the real cost of hospital fees in accordance with the Indonesia Case Based Group (INA CBGs) cost package approved by **Badan Penyelenggara Jaminan Sosial (BPJS)**. This study is to determine the cause of the change file BPJS claims that the negative consequences of coding problems after quality control of INA-CBGs coding in Bagas Waras hospital Klaten. This study was a qualitative research design action (Action Research). This study used a model of action research (Action Research) of S Kemmis and R McTaggart which is designed through two cycles of the procedure: (1) planning, (2) action (3) observation, (4) reflection in each cycle. The research instrument used a questionnaire. Analysis of the data used qualitative analysis and quantitative analysis. The results showed that the frequency of claims BPJS start of the cycle I, II and III, there was a decreasing in the proportion of the, it is due to an error coding, Length Of Stay (LOS) extends, the cost of medical action that is excessive, and Excess Cost investigations. In improving the ability of diagnosis coding, Bagas Waras hospital continuously strives to improve their ability to apply the Hospital Information System (SIRS). The cause of negative claim in a file BPJS after INA-CBGs control coding in Bagas Waras hospital is the employees do not understand the overall coding system, and do not run the monitoring and evaluation system of coding.

Keyword : INA-CBG, coding, negative claim



MEDICAL SCIENCE



REPRODUCTIVE PARAMETERS OF MALE ALBINO RATS AFTER INDUCTION IN SLEEP DEPRIVATION MODELS

Fitranto Arjadi*, Ika Murti Harini**, Nur Signa Aini Gumilas**

*Anatomy Departement, Medical Faculty, Jenderal Soedirman University

** Histology Departement, Medical Faculty, Jenderal Soedirman University

ABSTRACT

Paradoxical sleep deprivation (PSD) and total sleep deprivation (TSD) cause disrupt of male infertility but sleep recovery (SR) can improve male reproduction function that connected with occupational works health. The aim of this study is to determine the difference of reproduction parameters in male albinorats after exposed by various sleep deprivation models. This research was experimental post-test only with control group design. Rats were divided into 5 groups (6 animals each group) : negative control, PSD (II), TSD (III), PSD with SR, TSD with SR. The study results showed that average of spermatogenic group IV (8.35 ± 0.06) and V (8.27 ± 0.27) had higher scores. group IV had the highest number of Leydig cell ($5,91 \pm 1,43$), group I had the highest rates ($40,02 \pm 2,04$) number of Sertoli cell and there were no significant difference average of epithelial diameter ($p=0,598$) and height ($p=0,895$). There were significant difference of spermatogenic score post-SR, number of Sertoli and Leydig cells, but no significant difference of epithelial diameter and height of seminiferous tubule after exposed by various sleep deprivation stress model. Sleep recovery in occupational work can repair the histological parameter of reproduction.

Key word : male albino rats, reproduction parameters, sleep deprivation models

EFFECT OF ETHANOL EXTRACT OF SNAKE FRUIT'S PEEL ON URIC ACID SERUM AND CRP

Fajar Wahyu Pribadi*, Setiawati*, Viva Ratih Bening Ati*, Catharina Widiartini**,
Hilmi Puguh Panuntun***

*Departement of Pharmacology and Therapy, Faculty of Medicine, Jenderal Soedirman University

**Departement of Anatomy, Faculty of Medicine, Jenderal Soedirman University

***Faculty of Medicine, Jenderal Soedirman University

ABSTRACT

Unhealthy diet that consisted of high purine, derived from protein, had caused an increasing hyperuricemia-related disease in community. Anti-oxidant activity of snake fruit's peel had anti-hyperuricemia effect due to the flavonoid content. This study aimed to investigate the effect of ethanol extract of snake fruit's peel in reducing uric acid serum & *C-Reactive Protein* (CRP) level and to find out the most effective dosage of the activity. The rats were grouped into 6 groups (negative control, positive control, Allopurinol, dosage I (105 mg/kgbw extract), dosage II (210 mg/kgbw) and dosage III (420 mg/kgbw). All, except negative control groups were fed by standard diet pellet mixed with 20 mg/day goat brain for 15 days. Serum uric acid and CRP level of all groups was measured on day 0,9 and 16. The result showed that the uric acid serum level of extract groups was lower than control groups and there was CRP reduction in extract groups. The most effective dosage for reducing serum uric acid level was 420 mg/kgbw.

Keyword : snake fruit's peel, uric acid serum, C-Reactive Protein (CRP)

LABORATORY FINDING AND CLINICAL MANIFESTATION AFFECTING THE LENGTH OF STAY OF HOSPITALIZATION ON CHILDREN WITH DENGUE HEMORRHAGIC FEVER

Yanuarita Tursinawati*, Galuh Ramaningrum**, Indah Aprilia D.M***

*Lecturer at Medical Faculty, Muhammadiyah University of Semarang

**Lecturer of Pediatrics at Medical Faculty, Muhammadiyah University of Semarang

***Undergraduate Student of Medical Faculty, Muhammadiyah University of Semarang

ABSTRACT

Dengue Hemorrhagic Fever (DHF) was a disease caused by dengue virus infection with high morbidity. Most DHF patients required hospitalization care. The length of stay of hospitalization increased the cost and became burden of the patient's family. Length of stay (LOS) was an indicator to assess the quality of health services. The purpose of this research was to analyze the factors related the LOS of pediatric patients with DHF in Tugurejo hospital, Semarang. This was an observational study with cross sectional analytic. Total sample was 137 children with DHF who was hospitalized in Tugurejo hospital, Semarang during the period of September 1st 2015- August 31st 2016. The sample data was obtained from medical records that used purposive-sampling techniques. Data analysis used chi-square test with < 0.05 significance level and 95% confidence intervals. The analysis showed that platelet counts ($p = 0.000$), hematocrit ($p = 0.000$), hemoglobin ($p = 0.000$), complications ($p = 0.000$), the degree of fever ($p = 0.027$) and duration of fever before hospitalization ($p = 0.000$) significantly related to LOS of pediatric patients with DHF and there was no significant related of leukocyte count ($p = 0.374$) to LOS of pediatric patients with DHF. Prolonged LOS was associated with laboratory finding and clinical manifestation. By knowing these factors, practitioner could provide a more effective and efficient treatment to patients with DHF to shorten the LOS.

Keyword : laboratory finding, clinical manifestation, length of stay, Dengue Hemorrhagic Fever

THE USE OF VIDEO AS A SUTURING SKILLS LEARNING RESOURCES IN MEDICAL EDUCATION: A LITERATURE REVIEW

Mega Pandu Arfiyanti

Lecturer at Medical Faculty, Muhammadiyah University of Semarang

ABSTRACT

Using video in learning showed effective results in practicing clinical skills. Video can also be used to teach the clinical practice and physical examination skills. This literature review paper describes the effectiveness of the use of video as a suturing skills learning resources. We search the journal as a review of the literature through Google Scholar and ScienceDirect by using the term or key word search as follows "video", "learning resources", "suturing" and "medical education" which, combined with the words "AND" and "OR". We also restrict the search to journals that published for ten years, between 2005 and 2015. Video as a learning resource should be introduced in the beginning of the lecture. Video is an effective learning resources to teach clinical skills but has several limitations, namely lack of interaction between students and students and lecturers as well as the lack of provision of feedback to students. The use of video in education pre-clinical medical students is an effective way to teach students the skills procedure that save time, space and resources used.

Keywords : video, learning resources, suturing skill, medical education

EFFECTIVITY IN VITRO OF *AVERRHOA BILIMBI L* ETHANOLIC EXTRACT AGAINST *ESCHERICHIA COLI* AND *STAPHYLOCOCCUS AUREUS* GROWTH

Erwin Kukuh W.*, Ransidelenta V. Elmarda*, Maya Dian Rakhmawatie**

* Undergraduate Student of Medical Faculty, Muhammadiyah University of Semarang

** Pharmacology Department, Medical Faculty, Muhammadiyah University of Semarang

ABSTRACT

Averrhoa bilimbi L, or in Indonesian named belimbing wuluh has been widely used by the community as a complement to cuisine. From many studies, fruit or leaves of *Averrhoa bilimbi L* declared to have antibacterial activity. The activity is caused by the antibacterial content in *Averrhoa bilimbi L*, such as flavonoids, saponins, and tannins. This research is conducted to test the effectiveness of ethanolic extract of *Averrhoa bilimbi L* as antibacterial. The bacteria used to tested are Gram + *Staphylococcus aureus* and Gram- *Escherichia coli*, both of which are pathogenic bacteria in humans. This research was a pure experimental design with posttest only control group design. *Averrhoa bilimbi L* was extracted using maceration method with 96% ethanol solvent. The thick extract of the *Averrhoa bilimbi L* was diluted using 2% DMSO solvent to concentration range 0,19%; 0,39%; 0,78%; 1,0%; 1,56%; and 3,12% (v/v). Extracts with various concentrations were then tested to *S. aureus* and *E. coli* bacteria, and each concentration was repeated four times. MIC and MBC test were conducted by dilution method using Mueller Hinton Broth and Mueller Hinton Agar. MIC values were minimal concentration of no bacterial test growth, as measured by observing the difference of absorbance before and after incubation of treatment solution using spectrophotometer λ 625 nm. The MBC values are minimal concentration there is no bacterial colony growth after treatment. The statistical test showed that there was significant difference of absorbance value at each concentration of *Averrhoa bilimbi L* ethanolic extract test on both bacteria. Based on ANOVA analysis, p value was 0,001. In linear regression analysis, the relationship between extract concentration and the absorbance of *S. aureus* bacteria, is generated with regression value $y = 0,081x - 0,181$ and $R^2 = 0,93$ (p value 0,001). For the relationship between extract concentration and the log colony number of *S. aureus*, obtained regression value $y = 2,250x - 1,521$ and $R^2 = 0,72$ (p value 0,001). In statistic test of *E. coli*, there was significant difference from six *Averrhoa bilimbi L* ethanolic concentration groups. Based on test Kruskal-Wallis analysis, p value was 0,003. In linear regression analysis, the relationship between extract concentration and the absorbance of *E. coli* bacteria, is generated with regression value $y = 0,089x - 0,212$ and $R^2 = 0,89$ (p value 0,001). For the relationship between extract concentration and the log colony number of *E. coli*, obtained regression value $y = 0,526x + 6,998$ value $R^2 = 0,79$ (p value 0,001). Ethanolic extract of *Averrhoa bilimbi L* fruit was effective against *S. aureus* and *E. coli* with MIC and MBC concentration of 1.56% (v/v). Increased concentration of *Averrhoa bilimbi L* ethanolic extract will increase the inhibition growth of *S. aureus* and *E. coli* bacteria

Keywords : *Averrhoa bilimbi L*, belimbing wuluh, antibacterial, *S. aureus*, *E. coli*.

RADIOFREQUENCY TURBINATE REDUCTION IMPROVES QUALITY OF LIFE TURBINATE HYPERTROPHY PATIENT

Arum Kartikadewi* Wahyu Budi Martono **Ratri Cahyaningtyas ***

* Anatomy Departement of Medical Faculty, Muhammadiyah University of Semarang

** ENT Departement of Medical Faculty, Muhammadiyah University of Semarang

*** Undergraduate Student of Medical Faculty, Muhammadiyah University of Semarang

ABSTRACT

Turbinate Hypertrophy decreases quality of life due to nasal obstructions symptom. Radiofrequency turbinate reduction is minimal invasive surgical that expected to maintain nasal function. The surgical procedure compromises the improvement of patients' quality of life. There is no current consensus the difference quality of life before and after the procedure. Cross-sectional design was done in 31 turbinate hypertrophy patients with radiofrequency turbinate reduction. Before and after the procedure, patient's quality of life was assessed using a sinonasal outcome test-22 (SNOT-22) questionnaire parameters. Questionnaire SNOT-22 scores before and after the procedure was analyzed by t-dependent test. Patients characteristic was 20-39 years old age, employed, has past allergic rhinitis. Mean of SNOT-22 total score before procedure was $60.35 \pm 7,264$ and the mean postoperative total score was $10.19 \pm 3,103$. There were significant differences between quality of life before and after radiofrequency turbinate reduction ($p < 0.0001$). The better improvement symptom are nasal-throat symptom (4-79%), head, ear and face symptom (2,6-6,4%), diminish sleep disturbance (58,6-71,6%), disturbance activity reduce 57,4-72,8%, and psychological stress reduce 2-25,8%. Radiofrequency turbinate reduction improve the quality of life turbinate hypertrophy patients

Keywords : Turbinate hypertrophy, Turbinate reduction radiofrequency, SNOT-22

THE EFFECT OF PURPLE EGGPLANT EXTRACT (SOLANUM MELONGENA L) ON THE MOTILITY OF SPERMATOZOA

Aisyah Lahdji,* Andra Novitasari*

* Lecturer of Medical Faculty, Muhammadiyah University of Semarang

ABSTRACT

Purple eggplant (*Solanum melongena* L.) has been proven contain alkaloid solasodin compounds that have antifertility properties, but so far scientific studies on the effects of purple eggplant on sperm motility have not been done. The aims of the study is to determine the effect of purple eggplant extract on spermatozoa motility of male rats Wistar strain. This research was an experimental research with post test only control group design. Extraction of purple eggplant used maseration method with 96% ethanol solvent. A total of 28 mice were divided into 4 groups: a control group that was given distilled water, the treatment I, II, and III were given extracts of eggplant with a dose of 175.62; 351.24; And 526.86 mg / 200 g body weight for 3 days. The motility of spermatozoa was analyzed by taking sperm samples from the cauda epididymis on day 7. Based on ANOVA test results showed that the mean spermatozoa motility between treatments there was a significant difference ($p=0,000$). Control group with treatment group (I and II) did not differ significantly ($p> 0.05$). The mean spermatozoa motility decreased significantly in treatment III (46,43 + 23,56) compared to control, treatment I, and treatment II.

Keyword : purple eggplant; motility; spermatozoa

A STUDY OF INSOMNIA AT PRECLINICAL AND CLINICAL STUDENTS, FACULTY OF MEDICINE

Pramudita Probosiwi,* Rihadini,** Kanti Ratnaningrum**

*Undergraduate Student of Medical Faculty , Muhammadiyah University of Semarang

**Lecturer at Medical Faculty , Muhammadiyah University of Semarang

ABSTRACT

Insomnia is one of sleep disorder. Prevalence of insomnia in health students group is higher than non-health students group. This study aims to compare of insomnia level at preclinical and clinical students faculty of medicine. A cross sectional study was conducted on medical students, Faculty of Medicine, University of Muhammadiyah Semarang (Unimus). Determination of sample using Slovin formula with simple random sampling technique. students did not have problems such as had stopped in the previous semester, college not because of his wishes, was not being sad condition, and not smoking were included in study. Insomnia level was measured using Insomnia Severity Index (ISI questionnaire) and analyzed using chi-square test. Among 86 samples divided into 2 groups (preclinical and clinical stage), there is a significant difference insomnia level ($p = 0.006$) at preclinical and clinical students. Insomnia level of clinical students is higher than preclinical students in Faculty of Medicine.

Keywords : insomnia, preclinical student, clinical student

LOW LEVEL OF HIGH DENSITY LIPOPROTEIN INCREASES THE INCIDENCE OF CARDIAC ARRHYTHMIA PATIENTS AT TUGUREJO HOSPITAL, SEMARANG

Rahmadhona KS,* Yanuarita Tursinawati,** Zulfachmi Wahab,**

*Undergraduate Student of Medical Faculty , Muhammadiyah University of Semarang

**Lecturer at Medical Faculty , Muhammadiyah University of Semarang

ABSTRACT

Cardiac Arrhythmia is one of cardiovascular disease which can lead to sudden death. In this decade has been known that lipid profile such as total cholesterol, triglycerida, LDL, and HDL have a correlation with dyslipidemia which is a major contributor to the development of atherosclerosis and coronary disease, which play role in the etiology of cardiac arrhythm. This study is to analyze the correlation of lipid profile and incidence of cardiac arrhythm. This research used observational analysis with cross sectional design. The population were cardiac arrhythmia patients at RSUD Tugurejo Semarang who hospitalized from 1st January 2012 until 31st December 2014. The minimum sample size in this study were 65 persons taken using simple random sampling technique. Analysis of statistical used Chi Square and Logistic Regression test with CI = 90% , and p value < 0.1. There were 35 (52.2%) men, 21 (31.3%) were 56 – 65 age years old, and 35 (52.2%) had impuls formation type of arrhythm from 67 samples. There was no significant correlation between total cholesterol level (p=0,278), triglycerid level (p=0,250), and LDL level (p=0,585) with cardiac arrhythm, but HDL level (p=0,025) showed significant correlation with cardiac arrhythm. From multivariate analysis showed that HDL level gave the biggest influence at cardiac arrhythm with p value = 0.024. HDL level has significant correlation with cardiac arrhythm. HDL is the most influential lipid for cardiac arrhythm incidence.

Keyword : Cardiac arrhythmia, total cholesterol level, LDL, triglycerid, HDL.



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Jl. Wonodri Sendang Raya 2A, Semarang Phone : +6224 8415764

Fax : +6224 8317791 Email : isocmed@unimus.ac.id Web : isocmed.unimus.ac.id

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