



# Book of Abstract

**Symposium of Public Health**

**“The Role of Occupational Medicine and Family Medicine in Primary Health Care in The Era of National Health Insurance”**

**Medical Faculty**

**University of Muhammadiyah Malang**

**26<sup>th</sup>-28<sup>th</sup> November, 2019**



# WELCOME MESSAGE

## FROM THE CHAIR OF ORGANIZING COMMITTEE

Honorable Ladies and Gentlemen, Rector University of Muhammadiyah Malang,  
Dean of Medical Faculty, Speakers, all Guests

Assalamu'alaikum Warahmatullah Wabarakatuh

On behalf of the all committee members, it is my great pleasure welcome you to, The Symposium of Public Health Sciences in the unity of The National Cooperation Board of Public Health, Preventive Medicine, Community Medicine Indonesian Medical Faculty and The National Congress of The Indonesian Physician of Community Medicine and Public Health Association, on 26<sup>th</sup> November – 28<sup>th</sup> November 2019 at Atria Hotel, Malang, East Java, Indonesia.

The aim of this symposium is to disseminate knowledge, share it to the public and develop ideas for policy makers, from various levels in addressing programs to global health issues.

As the General Chair of this conference, I would like to thank all speakers, all conference committee, all participants, Atria Hotel, our sponsorships, our donors and to everyone who had contributed in many ways to ensure the success of this conference and all of whom have worked tirelessly on this conference.

Finally, I would like to welcome you to Malang, please enjoy the conference and the city of Malang. I will be all over the conference and would like to personally meet and warmly welcome each and every one of you.

Wassalamu'alaikum Warahmatullah Wabarakatuh

**Dr. dr. Febri Endra Budi Setyawan, M. Kes**  
Chair of Organizing Committee



# WELCOME MESSAGE

FROM THE DEAN OF MEDICAL FACULTY  
UNIVERSITAS of MUHAMMADIYAH MALANG

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The Symposium of Public Health Sciences which is tangible support from the Medical Faculty, University of Muhammadiyah Malang to improve knowledge and skills on public health issues, gain networking with other health professionals and increase the number of scientific publications for students, lecturers and health professionals. We hope, that this symposium will be held every year.

With the theme of the Conference is *"The Role of Occupational Medicine and Family Medicine in Primary Health Care in The Era of National Health Insurance"*, we are hoping that the conference will gather the highest possible level of global health issues which can benefit not only Indonesia nations but also International area with regards to health policies and laws, global health finance and a political commitment to make health a priority.

With our sincere gratitude to the all-conference committee, we will do our best to make this conference a successful and fruitful one and lay the firm groundwork for future development of public health.

Wassalamu'alaikum Warahmatullah Wabarakatuh

**Dr. dr. Meddy Setiawan, Sp.PD., FINASIM**

Dean

Medical Faculty, University of Muhammadiyah Malang



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## **A CROSS SECTIONAL STUDY: RELATIONSHIP BETWEEN SALAT WITH QUALITY OF LIFE IN ELDERLY AT MEDAN DENAI SUB-DISTRICT**

**Elman Boy, Ghazkhan Shah Ghanar, Amalia Husna, Abdul Rozak Bastanta Meliala, Retno Sundari, Lidya Mardia Sari, Mela Fitri, Ainul Basyirah, Sri Kurnia Rizka Siambaton, Ilham Kurniawan Ritonga, Muhammad Ihcsan**

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### **ABSTRACT**

Globally the elderly population continues to increase and is accompanied by quality of life issues that are affected by physical, psychological, social and environmental health. Prayer is a movement that is planned, structured and contains elements of exercise and is believed to improve the quality of life. Research on the relationship of salat with quality of life especially in the elderly is found very limited. To see the relationship between the implementation of prayer to the quality of life of the elderly which consists of 4 domains according to WHO, namely physical, psychological, environmental and social health. This research uses cross-sectional analytic research with the ordinal-nominal correlative formula so that 51 samples are obtained but this study uses 55 samples. Measurement of quality of life using WHO questionnaire namely WHOQOL-BREF and processing data with chi-square test analysis. Results: Based on statistical tests conducted on the physical health domain p value 0.01, on the psychological health domain p value 0.01, on the social health domain p value 0.01, On the environmental health domain p value 0.01. The p value obtained for all domains is 0.01, which means <0.05. There is a relationship between prayer and the quality of life of the elderly.

**Keywords:** Prayer, Quality of Life, WHOQOL-BREF, Elderly



## ANALYSING FACTORS AFFECTING CONTROL ADHERENCE IN DIABETES MELLITUS TYPE II PATIENT

**Gita Sekar Prihanti, Donnaryza Arcintya Ayunata, Edo Fajrin Rahadi, Jauharotul Jannah, Muhammad Tholhah 'Azam, Rafika Kartika Putri, Tutut Widya Nur Anggraini, Ulfia Safitri**

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### **ABSTRACT**

Diabetes mellitus is a disease that requires long-term medication and good control adherence for the treatment to succeed. Medication non adherence might disturb the continuation of the therapy given by the healthcare system. Furthermore, medication adherence is the biggest challenge for diabetes patients to keep their blood sugar level under control. Understanding factors affecting medication adherence in type 2 diabetes mellitus patients. This study was an observational analytic research with cross-sectional design on the area Public Health Center (Puskesmas) X, Y City. Sample was selected using purposive sampling, resulted in 375 type 2 diabetes mellitus. Sample answered 15 item questionnaire about medication adherence in diabetes mellitus and independent variables. Data was analyzed using chi-square test and logistic regression test. Multivariate analysis resulted in five independent variable that affected control adherence diabetes type 2 significantly, they were education level ( $p=0,004$ ), complication ( $p=0,000$ ), motivation ( $p=0,000$ ), perception ( $p=0,000$  OR 3,515(CI95%2.026-6.098)), knowledge ( $p=0,000$  OR 1,914 (CI95%1.177-3.114)), family support ( $p=0,000$  OR 4,574(CI95%2.886-7.249)) with R Square 24,8%. Intervention strategy for the factors was necessary. It can be done by improving health care for DM patients, such as counseling and education to patients and their families, homevisit and reminder, HbA1c level measurement, and encouraging all DM patients to join Management of Chronic Disease (Prolanis) program.

**Keywords:** Control Adherence, Type 2 Diabetes Mellitus, Education Level, Complication, Motivation, Perception, Knowledge, Family Support



## **ANALYSIS OF MEDIA MESSAGES ON TOBACCO CONTROL POLICY ADVOCACY IN INDONESIA 2010-2015 IN THE CONTEXT OF BIOETHICS**

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### **ABSTRACT**

More than 64 million of Indonesian population are active smokers and 70% of them are poor. Almost a third of households in the lower middle group were smokers. Teens with parents who smoke have three times higher propensity to initiate smoking behavior. The poor are the people who are vulnerable to poverty, hunger and disease, on the other hand is the largest market turnover of tobacco products. Deaths in Indonesia as a result of tobacco related illness reached 190 260 inhabitants in 2010 (1). Media advocacy is one of the ways currently being used even by the tobacco industry to interfere with public opinion about tobacco and its products, so that there is a media war to fight for influence between the tobacco industry with public anti-tobacco activists. The present study uses qualitative research design consisted of the analysis of the frame (framing analysis) to the preaching of policies for tobacco control in the newspaper Kompas and Bisnis Indonesia as well as content analysis descriptive (descriptive content analysis) on the coverage of the news pros and cons of the policy on tobacco control during the years 2010 to 2015. The message framing the policy debate controlling advertising in a newspaper article as a media pro KOMPAS-control policies are cigarette advertising to reduce the risk of an increase in the number of new smokers. On the side of the counter-policies, Bisnis Indonesia articles framing the effort to control cigarette advertising messages will only narrow the space for the tobacco industry and reduce state revenue. Morality is lifted KOMPAS.

**Keywords:** Bioethics, Coverage, Framing, Controversy, Media



## **ANALYSIS SITUATION OF ENVIRONMENTAL SANITATION HYGIENE AT NURIS ISLAMIC BOARDING SCHOOL IN AN EFFORT TO FORM A INDEPENDENT HEALTHY CADRE**

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### **ABSTRACT**

Islamic boarding school is a gathering place for students from various regions. This place is known to have many health problems, ranging from personal hygiene to environmental cleanliness. Cleanliness of the surrounding environment and in the rooms is determined by the daily habits of the students. Lack of concern in maintaining environmental cleanliness can risk the emergence of diseases, including scabies (scabies). This study aims to determine the knowledge, attitudes and behavior of santri in the pondok area related to the incidence of scabies as a basic analysis of health cadre training. This is a type of quantitative descriptive study by collecting structured interview data with a questionnaire. The sample of this study was the high school students / MA Featured Nuris who were members of the PMR extracurricular. The study was conducted in October-November 2019 at SMA / MA Unggulan Nuris Jember. The results of this study indicate that most PMR members have good knowledge regarding personal and environmental hygiene. Also most of their attitudes tend to agree on personal and environmental hygiene activities. However, in the results of their daily behavior / habits, there are a number of things that need attention. Most students always hang clothes in the room. Most of the students do not dry their towels in the hot sun. Most santri borrow each other's clothes and veil / sarong. And most of them sometimes wear the same clothes for more than one day. Therefore these habits need to be changed. Behavior can be changed by the example of fellow students who are appointed as health cadres so that students know, want and be able to live clean and healthy. Furthermore, training was conducted for PMR members who later became health cadres in efforts to control environmental cleanliness and reduce the number of scabies in Islamic boarding schools. Despite having quite a good knowledge and attitude, a number of santri behaviors still have the potential to increase the incidence of scabies or other skin diseases. It is hoped that there will be regular monitoring of environmental cleanliness and santri behavior after training and the formation of health cadres.

**Keywords:** Environmental Sanitation, Santri, Personal Hygiene, Scabies, Pesantren



## **ANALYSIS THE VALUE OF PROGRESS TESTS ON THE AVERAGE VALUE OF KNOWLEDGE IN MEDICAL STUDENTS**

**Anung Putri Illahika, Gita Sekar Prihanti, Risma Karlina Prabawati, Dian Yuliartha Lestari, Dwi Nurwulan Pravitarsari**

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### **ABSTRACT**

A key concept in this patient/problem-oriented curriculum is a constructivistic curriculum approach. Assessment methods were chosen to reflect these educational principles. One of these methods, progress testing with multiple choice questions, will be described and discussed. Student assessment is an inseparable part of the education field. based on its function the assessment is divided into 2 namely formative and summative assessment. This study uses `Cross-Sectional design. Sampling uses total sampling of 724 students. The evaluation that will be carried out is the Spearmen correlation test is performed to determine whether there is a relationship between the results of progress test with the average value of knowledge. The correlation between progress test and value of knowledge obtained  $\text{sig} = 0,000$  and the correlation value is 0.167 which is still in a very weak range with a positive correlation. The results`of the research indicate higher value of progress test so higher the value of knowledge.

**Keywords:** Progress Test, Student Assessment, Value of Knowledge



## ATTITUDE AND ACTIVITIES OF THE USE OF ANTIBIOTICS TOWARDS GIANYAR ACUTE INFECTION DISEASE IN MOMS WHO HAVE TODDLERS IN THE WORKING AREA OF TEGALLALANG I GIANYAR DISEASE

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### ABSTRACT

Acute respiratory tract infections (ARI) is one of the infectious diseases that is a public health problem. Based on Riskesdas data (2013), the highest prevalence of ARI in the age group 1 to 4 years is 25.8%. In 2016, ARI was ranked in the top 3 in the 10 most diseases in the UPT Health Unit Tegallalang I Gianyar. According to the CDC guidelines, antibiotic treatment in ARI is only given in 20% of cases, but the Ministry of Health data in 2011 shows that 60% of ARI sufferers consume antibiotics incorrectly. Irrational treatment is influenced by people's knowledge and behavior about antibiotics. This study used a descriptive research design with a cross sectional approach involving 46 consecutive respondents who were mothers of children under five in the working area of the Tegallalang I Public Health Unit, Gianyar. Sampling was conducted at posyandu-posyandu in the working area of the Tegallalang I Health Center with convenient sampling techniques. How to collect data in this study using a questionnaire. In this study, the average age of 46 samples was  $29.30 \pm 5.48$  years. More mothers have a low education level of 27 (58.7%) and the employment status of mothers is more unemployed 31 (67.4%). The percentage of maternal knowledge on the use of antibiotics is low at 84.8%, the percentage of firm attitude has a negative attitude of 65.2% and the percentage of actions classified as having bad actions is 63%. The high proportion of mothers with low knowledge, negative attitudes and bad actions about antibiotics indicates the need for increased health promotion efforts to improve the knowledge, attitudes and behavior of mothers in the use of antibiotics in the work area of the Tegallalang I Health Center, Gianyar.

**Keywords:** Knowledge, Attitude, Actions, Antibiotics, Mother of Children Under Five, Puskesmas



## **CASE REPORT: 51-YEAR-OLD MAN WITH DIABETIC FOOT WITH SUSPECTED OSTEOMYELITIS**

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### **ABSTRACT**

Diabetic foot disease is a major problem in the world and is the most important cause of foot amputation in diabetes. Readmission rates reach half of the number of patients undergoing amputation. Diabetic foot also has a high level of morbidity and mortality. A 51-year-old man with diabetic foot. Patients were given antibiotic therapy for 7 days before debridement, regular wound care every day, planned debridement, and good blood sugar control before surgery. Patients performed minor amputations on the right digital pedis III at the time of debridement due to suspicion of osteomyelitis. Diabetic foot management with effective debridement methods, minor amputations in tissue suspected as osteomyelitis, use of empirical and definitive antibiotics and periodic wound care help reduce the risk of major amputations.

**Keywords:** Diabetic Foot, Osteomyelitis, Debridement, Amputation.



## **COMMUNITY EMPOWERMENT REGARDING THE ONE JUMANTIK ONE HOUSE PROGRAM IN KELURAHAN KARANG BESUKI, MALANG CITY**

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### **ABSTRACT**

Currently, in the 2016 Healthy Indonesia program, the strategy used is to strengthen health services through a family approach. According to the 2016 Ministry of Health technical guidelines, the Jumantik one house movement is the role and empowerment of the community by involving each family in the inspection, monitoring and eradication of mosquito larvae to control infectious diseases, especially Dengue Fever through civilizing the eradication of 3M PLUS Mosquito Nest (PSN). This activity aims to increase community participation to conduct a one jumantik one house program. The method provided is to conduct 1) Ovitrap training and Focus group discussion (FGD), 2) Providing health promotion and training of one jumantik house, 3) Best RT Contest. The result of this activity was an increase in community knowledge about the one-jumantik one program and the formation of the jumantik team. Furthermore, for the sustainability of the program, it is hoped that it can continue to be improved by collaborating with Mulyorejo Puskesmas staff who monitor activities routinely through posyandu.

**Keywords:** Jumantik, Dengue Fever, Prevention





# **COMPARISON OF THE EFFECTIVENESS OF BLOOD PRESSURE REDUCTION BETWEEN THE COMBINATION OF ANTI HYPERTENSION PATH OF ANGIOTENSIN RECEPTOR BLOCKER - BETA BLOCKER AND BETA BLOCKER - CALSIUM CHANNEL BLOCKER IN PATIENTS HYPERTENSIVE HEART DISEASE IN DRUG DRUGS**

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## **ABSTRACT**

Hypertension is a disease that causes a high mortality rate in the world, death related to heart disease by 45% and stroke by 51%. Increased blood pressure can increase the risk of damage to these organs depending on the patient's high blood pressure and how long the high blood pressure is uncontrolled and untreated and causes hypertensive heart disease (Muhadi 2016, p. 54). The results of research by Yuli Ernawati in 2016 showed 8 combination patterns used by patients, namely beta blockers with ACE-Inhibitors, Angiotensin Receptor Blockers (ARB) with hydrochlorothiazid, Angiotensin Receptor Blockers with Calcium Channel Blockers (CCB), Angiotensin Receptor Blockers with Beta Blockers, ACE-Inhibitors with hydrochlorothiazid diuretics, ACE-Inhibitors with furosemide, ACE-Inhibitors with Angiotensin Receptor Blockers, ACE-Inhibitors with Calcium Channel Blockers. The purpose of this study is to compare the effectiveness of reducing blood pressure between antihypertensive drug combinations between the Angiotensin Receptor Blocker - Beta Blocker and Beta Blocker - Calcium Channel Blocker in hypertensive heart disease patients. This type of research is observational analytic research with cross sectional design. The study was conducted at the Heart Poly Regional General Hospital (RSUD) Dr. Dradjat Prawiranegara Serang Regency. The sample size in this study were 35 people with a total sampling technique. In the results of this study found more Hypertensive Heart Disease patients aged over 65 years (34.3%) and more in the female sex (62.9%). More hypertensive heart disease patients use a combination of drugs Angiotensin Receptor Blocker and Beta Blocker (54.3%). In Hypertensive Heart disease patients more did not experience a decrease in blood pressure (54.3%). In the chi square test p value = 0.0830 (CI = 0.304-4404 and OR = 1,157) means that it can be concluded that there is no difference in blood pressure reduction between the combination of antihypertensive drugs in the Angiotensin Receptor Blocker - Beta Blocker and Beta Blocker - Calcium Channel Blocker group in patients with hypertensive heart disease.

**Keywords:** Hypertensive Heart Disease, Antihypertension, BB-CCB-ARB



## **CORRELATION BETWEEN PROGRESS TEST WITH GRADE PERFORMANCE AVERAGE (GPA) OF MUHAMMADIYAH MEDICAL FACULTY'S STUDENT AT 2018**

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### **ABSTRACT**

The Faculty of Medicine at University of Muhammadiyah Malang is running a PBL-based curriculum. Grade Performance Average (GPA) was used as a reference in graduating students. A progress test was used to evaluate components of the basic medical and clinical sciences curriculum. To correlate the result of Progress Test with the Grade Performance Average. This study used cross sectional study. Progress Test was conducted for 724 students. Correlation between Progress Test results and GPA was analysed with Spearman test. There was a significant correlation between the Progress Test and the GPA (p value 0.000). The correlation magnitude was 0.190 (weak). The positive relationship indicates if the value of Progress Test was higher, then the GPA value was also higher. Progress Test had a good correlation with GPA value. This results are being utilized to help in modifying the curriculum.

**Keywords:** Progress Test, GPA, Assessment, Problem Based Learning



## DESCRIPTION OF STUNTING EVENTS IN JUNREJO PUSKESMAS AREA OF BATU CITY IN 2019

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### ABSTRACT

Stunting is a disorder of linear growth expressed by the z-score based on an indicator of body length or height according to age (z-score PB / U or TB / U < -2.0). Stunting is an indicator of chronic nutritional problems. To identify stunting in toddlers aged 59 months in the area of the Junrejo Community Health Center. This research is quantitative, with the type of research is descriptive. Data collection through monthly posyandu data for the Junrejo Community Health Center in 2019. The number of male toddlers was more (50.94%), there were stunting toddlers at 12.88% in the puskesmas area with the highest percentage in Junrejo Village (15.95). Further research is needed to assess the relationship between the determinant variables and the stunting event.

**Keywords:** Stunting, Descriptive Event



## DESCRIPTION OF SPORTS BEHAVIOR OF DIABETES MELLITUS PARTICIPANTS OF CHRONIC DISEASE MANAGEMENT PROGRAM IN KROMENGAN PUSKESMAS MALANG IN 2018

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### ABSTRACT

Diabetes Mellitus (DM) is a metabolic disease that causes complications in other organs. An estimated 422 million people worldwide suffer from DM in 2014 and at Indonesia alone gained 12,191,564 people with DM in 2013. One of the pillars in the management of DM is to do physical activities or sports, by doing exercise is expected to reduce the condition of hyperglycemia in people with DM. Indonesia through the Social Security Organizing Agency (BPJS) to handle DM in a holistic manner through a chronic disease management program (Prolanis) that encourages DM sufferers conduct healthy living behaviors including exercise. This type of research is analytic descriptive research using cross study design sectional with data taken through questionnaires. The population of this study is sufferers DM type 2 Kromengan Puskesmas registered in the Disease Service Program Chronic (Prolanis). the number of samples is 20 people. Sample selection in this study taken by sampling technique saturated because the total population is less than 30 people. From this study the respondent's knowledge level was included in the category 50% is enough, the level of knowledge is good at 35% and the level of knowledge is lacking by 15%. Most of the respondents' attitudes are in the good category. Where is a good attitude by 50%, enough attitude by 45% and less attitude by 5%. Respondents do efforts to control blood glucose levels through exercise. Most respondents, 70% do aerobic exercise. Preparation of respondents before exercise 55% only consume small meals first while the remaining 45% do not special preparations, as many as 60% of respondents doing sports in a week as much as 3-5x in a week. As many as 40% of respondents exercise for 150 minutes in 1 week.

**Keywords:** Diabetes Mellitus (DM), Behavior, Prolanis, Exercise



## DIETARY INTAKE ASSESSED BY 24-H RECALL ASSOCIATED LUNG FUNCTION IN BUILDING WORKERS

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### ABSTRACT

Building workers in carrying out activities often get exposure to air pollution. Increased exposure to pollution will cause respiratory problems. This can cause a decrease in the intake of food consumed by construction workers. This study aims to assess calorie intake in construction workers with respiratory disorders using 24 hour recall. The research design used is case control. The variables in this study were calorie intake through 24 hour recall questionnaires and respiratory disorders using spirometry. The sample in this study amounted to 60 people with respiratory disorders and 60 people without respiratory disorders. The results showed a difference in calorie intake in each group ( $p=0,000$ ), so it can be concluded that respiratory disorders cause a decrease in the amount of calorie intake consumed by construction workers.

**Keywords:** Respiratory Disorders, Calorie Intake, 24-H Recalls, Air Pollution



## EATING SNACK FREQUENCY IS ASSOCIATED WITH GENDER AND ATTITUDES AMONG UNIVERSITY STUDENTS

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### ABSTRACT

Snacking is often associated with obesity because snacks are identical to foods high in fat, sugar, and salt. Several factors influence individual eating behavior, including demographic characteristics, knowledge, attitude, and motivation. This study aimed to identify the influence of age, gender, student status, living condition, knowledge, attitudes, and motivation toward the frequency of snacking and snack preference among university students. A cross-sectional survey involved 236 university students in Universitas Brawijaya, Malang. Demographic characteristics, attitudes, and motivation score towards snacking and knowledge related to a balanced diet, were measured by using a questionnaire. Responses of the frequency of snacking were always/frequent (eating snacks at least 4-6 days/week) and sometimes/rarely (1-3 days/week or less). Preference of snacks is divided into fried and non-fried snacks. Hypothesis testing was completed using a chi-square test, Mann-Whitney test, and logistic regression. More than half of the respondents (66%) reported that they frequently consumed snacks almost every day. The most frequent snacks consumed were fried type (57.2%), for example, vegetable fritter, crackers, and chips. Female students were more frequent eating snacks than males ( $p < 0.001$ ,  $OR = 3.1$  | 95% CI 1.74-5.56). Students who frequently eat snacks have a higher attitude and motivation score ( $p < 0.001$ ). Logistic regression analysis showed that being female and a higher score of attitudes are associated with frequent snacking while age, living condition, student status, knowledge, and motivation were not ( $p > 0.05$ ). Promoting healthy snacking is essential, particularly snacking among university students, and giving more emphasis on changing students' attitudes can play a critical role.

**Keywords:** Requency of Snacking, Gender, Knowledge, Attitude, Motivation



## **EFFECTIVENESS OF EDUCATION AND BALANCE TO REDUCE THE RISK OF FALL IN AGE**

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### **ABSTRACT**

Fall is a major problem for parents. Some studies report that education and balance training in the elderly can reduce the risk of falls, but there has not been much research on this topic in Indonesia. To measure the effectiveness of education and balance training to reduce the risk of falling in the elderly. This quasi-experimental study has 2 groups: intervention and control with pre and post tests. Balance education and training is given to the intervention group. Functional Reach Test (FRT) is used to assess the balance and Falls Efficacy Scale-International (FES-I) to assess the risk of falling. Data were analyzed using paired t-test. Results: The study was conducted in the city of Yogyakarta. Data was collected from 60 elderly with moderate-high risk of falls divided into 2 groups. There were significant differences in FRT ( $t = -16.301$ ,  $p < 0.001$ ), and FES-I ( $t = -24.457$ ,  $p < 0.001$ ) before and after education and balance training in the intervention group. Balance education and exercise for 3 weeks significantly reduces the risk of falls. While in the control group there were no significant differences in FRT ( $t = -0.126$ ,  $p = 0.901$ ), and FES-I ( $t = -0.764$ ,  $p = 0.451$ ) before and after the intervention. Education and balance exercises effectively reduce the risk of falls in the elderly.

**Keywords:** Education, Balance Training, Elderly, Fall Risk



# EFFECT OF COMBINATION OF MORINGA OLIEFERA LAM EXTRACT AND VITAMIN C, IN IMPROVING INDICATORS OF IRON DEFICIENCY ANEMIA IN MALE WHITE MOUSE LOW IRON DIET AKING RICE

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## ABSTRACT

Iron deficiency anemia is still a major health problem in developing countries. Therapy with iron preparations often causes undesirable side effects. Moringa leaf extract which is rich in iron can be used as an alternative therapy in iron deficiency, and combination with vitamin C can increase the effectiveness of iron absorption in the gastrointestinal tract. To determine the effect of the combination of Moringa oleifera lam. Extract and vitamin C on the indicator of iron deficiency anemia in white rats (*Rattus Novergicus Strain Wistar*) who were given a diet low in iron aking rice. True experimental research design using post test only control group design. The object of this study was male white rats (*Rattus novergicus Strain wistar*) induced by a low-iron rice diet. The study was divided into negative control group, positive control group, the treatment group with Moringa leaf extract dose of 400 mg / kg body weight, 800 mg / kg body weight, 1,600 mg / kg body weight. The treatment group was given vitamin C in a dose of 40 mg. One way Anova test, hemoglobin sig. 0,000 ( $p < 0.05$ ), MCV sig 0.27 ( $p > 0.05$ ), MCH sig 0.16 ( $p > 0.05$ ), serum iron sig. 0,000 ( $p < 0.05$ ), transferrin saturation sig. 0.006 ( $p < 0.05$ ), and TIBC sig 0.68 ( $p > 0.05$ ). Pearson correlation for hemoglobin 0.746 (sig.0,000), and linear regression with  $R^2$  0.557 (sig.0,000); for serum iron 0.742 (sig.0,000) with  $R^2$  0.551 (sig.0,000). There was an increase in hemoglobin and serum iron levels in the treatment group. The administration of Moringa leaf extract in combination with Vitamin C has an effect on increasing levels of hemoglobin and serum iron in white male Wistar strain diets with low iron rice diets.

**Keywords:** Iron Deficiency Anemia, Moringa Leaf Extract, Vitamin C, Hemoglobin, Serum Iron





## **EFFECT OF IRON SUPPLEMENTATION AND RED GUAVA JUICE DOSAGE ON CHANGES IN HEMOGLOBIN LEVELS IN YOUNG WOMEN ANEMIA.**

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### **ABSTRACT**

The prevalence of anemia in adolescent girls aged 10-18 years reaches 57.1%. In Sukoharjo regency, anemia was found at school age by 26.5%. Young women have a 10-fold risk of anemia compared to young men. Factors causing anemia in adolescent girls one of which is iron deficiency. To overcome the incidence of anemia with iron supplementation. In addition to iron supplementation, there is a need for nutrients that can increase their absorption and one of them is vitamin C. Red guava is known as a fruit that is high in vitamin C two to four times more than oranges. The purpose of this study was to determine the effect of iron supplementation and dose of red guava juice on changes in hemoglobin levels in anemic adolescent girls. A total of 66 anemia female adolescent girls aged 13-15 years participated in this study. Subjects were divided into four treatment groups, namely treatment group 1 (KP 1) Fe supplementation + 200ml guava juice, treatment group 2 (KP 2) iron supplementation + 100ml guava juice, treatment group 3 (KP 3) Fe supplementation + 50ml guava juice, and the control group (KK) only Fe supplementation. The number of each group is also different, namely KP 1 with 17 subjects, KP 2 with 19 subjects, KP 3 with 14 subjects, and KK having 16 subjects. This research lasted for 8 weeks and was given 2x in a week. The research sites are Grogol 2 N Middle School, Grogol 3 N Middle School, Muhammadiyah Grogol MTs, and Al-Mukmin Ngruki Sukoharjo MTs. Data analysis using paired simple t-test, one way ANOVA, and linear regression with  $p < 0.05$ . There were significant differences in mean Hb levels after being treated in each group, KP 1 ( $11.7 \pm 0.49$  g / dL), KP 2 ( $12.2 \pm 0.44$  g / dL), KP 3 ( $12, 1 \pm 0.33$  g / dL), and KK ( $12.1 \pm 0.43$  g / dL) with each group  $p = 0.000$ . There is an effect of the type of treatment given on hemoglobin levels in anemic adolescent girls with a significant value of  $p = 0.025$  ( $p < 0.05$ ). Iron supplementation and guava juice influence Hb levels.

**Keywords:** Iron Supplementation, Red Guava Juice Dose, Hemoglobin Levels, Adolescent Girls Anemia



## **EFFECT OF PANDAN WANGI (PANDANUS AMARYLLIFOLIUS ROXB) LEAF EXTRACTS ON RECTAL TEMPERATURE DECREASE, TNF-A LEVELS AND IL-10 LEVELS IN WISTAR RATS INDUCED BY DPT VACCINE**

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### **ABSTRACT**

Fever is an increase in body temperature exceeding 37.5°C. Post-Immunization Incidence after DPT immunization is fever. Prophylactic use of paracetamol can reduce the antibody response of DPT vaccine. Fragrant Pandan leaves containing kaemferol and naringenin are thought to have antipyretic effects. The content of pandan leaf ferulic acid has been shown to improve the immune response. Proving that fragrant pandan leaf extract reduces rectal temperature, TNF- $\alpha$  and increases IL-10 in Wistar rats induced by DPT vaccine. 25 Wistar rats were divided into 5 groups, namely negative control (KN) induced by DPT vaccine and given 2.5 ml of distilled water, positive control (KP) induced by DPT vaccine and given paracetamol 9 mg/200grBB, and 3 treatment groups (P1, 2 and 3) induced by DPT vaccine and received extracts of fragrant pandan leaf 317.5; 635 and 1270 (mg/kgBB) orally. Rectal temperature examination is done pre and post treatment. At the end of the study, mice were sacrificed, intracardial blood was taken and serum TNF- $\alpha$  and IL-10 levels were examined by ELISA. Data were analyzed by ANOVA test and Pearson test. The administration of pandan leaf extract significantly reduced rectal temperature, TNF- $\alpha$  and IL-10 levels ( $p < 0.05$ ). The greater the dose of pandan leaf extract, the greater the decrease in rectal temperature ( $p = 0.00$ ;  $r = 0.873$ ) and the lower levels of TNF- $\alpha$  ( $p = 0.00$ ,  $r = -0.817$ ). The greater the temperature decrease, the lower the TNF- $\alpha$  level ( $p = 0,000$ ,  $r = -0,753$ ).

**Keywords:** Pandanus Amaryllifolius, Antipyretic, Rectal Temperature Reduction, TNF-A, IL-10, DPT Vaccine.



## **EFFECT OF THE EDUCATION OF NEEDLESTICK UTILIZATION TOWARDS THE KNOWLEDGE OF PARAMEDICS IN NON- HOSPITALIZATION HEALTHCARE CENTER IN YOGYAKARTA**

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### **ABSTRACT**

Needlestick and sharps injury shows a major risk to the medical workers, mainly caused by accidental exposure to the blood and other infected body fluids. Standard precaution is necessary to be implemented in order to minimize the infection incident in the hospital. The one who potentially gets exposed to needlestick and sharps injury in the hospital is the paramedics. The objective of this study is to analyze the effect of education on needlestick utilization to the paramedics' knowledge in a non-hospitalized healthcare center in Yogyakarta. This study used a quasi-experiment with pretest-posttest control-group design. This study also used purposive sampling to explore the knowledge regarding needlestick and sharps injuries consisted of 15 respondents in the control group and 15 respondents in the treatment group. The Wilcoxon test was used to analyze the data and this study used questionnaires to collect the data which was conducted in early 2018 at the healthcare center in Yogyakarta. The independent variable is the education of needlestick and sharps injuries, while the dependent variable is knowledge of needlestick and sharps injuries. Before the treatment, the knowledge on the risk of needlestick and sharps injuries in the control group is mean = 1.80 and SD = 0.414. While after the treatment, mean = 2 and SD = 0.378. The value of p is 0.180 ( $p > 0.05$ ), it is non-significant. In the treatment group, the result before the treatment showed that mean = 1.87 and SD = 0.372. After the treatment, mean = 2.33 and SD = 0.488 with the value of  $p = 0.008$  which is significant. In comparison, there is a significant difference between the control group and the treatment group. In the treatment group,  $p = 0,001$  and it is significant. There is a significant difference between the control and the treatment group in comparison. It concludes that education is effective in increasing the knowledge of paramedics regarding the risk of needlestick and sharps injuries in the hospital.

**Keywords:** Effectiveness, Education, Needlestick, And Sharp Injuries, Knowledge, Paramedics



## EFFECT OF ZINC AND VITAMIN A SUPPLEMENTATION ON NUTRITION STATUS OF AGES 5-10 YEARS WITH ANEMIA TUBERCULOSIS

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### ABSTRACT

Tuberculosis (TB) in Indonesia still ranks third in the world. Anemia often occurs in children with tuberculosis. Children with tuberculosis also often experience zinc and vitamin A deficiency. Zinc deficiency can cause immune system disorders and interfere with the synthesis of retinol binding protein so that it can inhibit the healing process of TB. The addition of zinc and vitamin A can help improve the body's immune response in people with TB. To prove the effect of zinc and vitamin A supplementation in improving the improvement of nutritional status in children aged 5-10 years with anemic pulmonary tuberculosis. This was a quasi-controlled, pre-post experimental study. A total of 37 children who had been selected and diagnosed with anemic pulmonary TB in the four District Health Center areas in Central Jakarta were taken as research subjects. Subjects were divided into two groups namely group I who received DOTS Standard Anti Tuberculosis Medications and supplements (containing 20 mg zinc sulfate and 1500 IU vitamin A acetate) and group II who received only OAT. Drugs and supplements taken everyday during treatments (6 months). The healing response can be measured by the improvement in nutritional status compared to the time before treatment. Analysis to see the differences between the two groups uses the T-Test. 37 subjects were taken in the intervention group (n = 15) and the control group (n = 22). In the second month, there was a change in the value of zinc in group II was higher than in group I (p = 0.130); and hemoglobin in group I was higher than group II (p = 0.922). There was an improvement in the value of delta albumin (p = 0.003) and retinol (p = 0.046) in both group and BMI / U was not statistically significant (p = 0.675). End of treatment there was an increase in hemoglobin (p = 0.204), albumin (p = 0.026), retinol (0.866) and BMI / U (p = 0.092) but not in zinc. In the second month supplementation of zinc and vitamin A can increase levels of zinc, albumin, hemoglobin, retinol and BMI / U. At the sixth month zinc and vitamin A supplementation can increase albumin, hemoglobin, retinol and BMI / U levels.

**Keywords:** Zinc, Vitamin A, Children, Tuberculosis, Anemia



## **FACTORS ASSOCIATED WITH ARB (ACID-RESISTANCE BACILLI) SMEAR CONVERSION FROM POSITIVE TO NEGATIVE AMONG LUNG TUBERCULOSIS PATIENTS, WEST JAKARTA, JULY 2016**

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### **ABSTRACT**

Pulmonary tuberculosis (TB) is a major health problem in the world that cause morbidity in millions of people each year. Based on the 2015 WHO report, in 2014 there were 9.6 million cases of pulmonary TB in the world, 58% of TB cases are in Southeast Asia. Indonesia is located in Southeast Asia with the second largest number of TB cases in the world. It is due to the positive acid-fast bacilli (AFB) smear among pulmonary TB patients which is the main source of TB transmission in the community. High conversion rate which will be followed with a high cure rate among TB patients. This study aims to determine the factors associated with AFB smear conversion from positive to negative in patients undergoing anti-tuberculosis treatment in Puskesmas Kecamatan Grogol Petamburan. The design of this study was cross-sectional study conducted in July 2016. A numbers of 104 patients who received anti-tuberculosis treatment in Public Health Centre Grogol Petamburan district from January to July 2016 were recruited. The independent variables are gender, age, nutritional status, presence of supervisor when taking medication, compliance, family salary and distance to the clinic and the dependent variable is the conversion of Acid Resistance Bacilli (ARB) smear. Data were obtained using medical records and questionnaires. Data were analyzed by univariate, bivariate and multivariate. Presented by p-value, odd ratio and 95% confidence interval. The proportion of conversion = 69.2%, There were statistical significant between nutritional status ( $p = 0.010$ ), the presence of person who supervise taking medicine ( $p < 0.0001$ ) and compliance ( $p < 0.0001$ ) with ARB smear conversion. It is recommended for medical personnel to pay attention to the patient's nutritional intake, strict follow-up to compliance with medical treatment with person who supervise taking medicine.

**Keywords:** AFB Smear Conversion, Pulmonary Tuberculosis, Nutritional Status, Medication Supervisor, Compliance



## FACTORS AFFECTING NUMBERS FERTILITY AT KEMIS MARKET DISTRICT TANGERANG IN 2018

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### ABSTRACT

Indonesia in 2016 has 259 million population with a total fertility rate that has stagnated since 2012 which is 2.6 and has not yet reached the 2.1 target, causing various problems such as education, health and poverty problems. The purpose of this study was to determine what factors influence fertility rates in Pasar Kemis District, Tangerang Regency. This study used a cross-sectional design. The sample is 77 respondents with proportional sampling method. Analysis using chi-square, independent T test and logistic regression. The majority of respondents had children >2, did not work, graduated from college, used non-MKJP contraception and did not experience child mortality. The average family income is above the regional minimum wage and the wife's initial marriage age is 23.94 years. Increased fertility rates for unemployed mothers (OR = 3,385, 95%) low level of wife education (OR = 2,700, 95%), family income below the minimum wage (average 7,103,896), younger age of early marriage (average 23.94 years), and the use of non-long-term contraception methods (OR = 4,625). Husband's education level, length of marriage and child mortality are not related to fertility rates. The wife's work status, wife's education level, family income, the age of the wife's early marriage, and the use of contraceptives are related to fertility rates and the factor that most influences fertility rates is the use of contraceptives.

**Keywords:** Fertility Rates, Fertile Age Pairs, Income, Education, Early Marriage Age



## **FACTORS RELATED TO PATIENT REFERRAL FROM PUBLIC HEALTH CENTER TO HOSPITAL**

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### **ABSTRACT**

Referral is the delegation of authority and responsibility of cases or health problems held on a reciprocal basis, either vertically or horizontally. The percentage of patient referrals from Public Health Center to hospitals reached 55% in 2015. Surely this will become a burden on referral hospitals so that hospitals become overwhelmed in serving patients who should be able to be handled at the Public Health Center. This study aims to determine the factors that influence patient referral from public health center to the hospitals. Using a cross sectional design by taking data on all patients who received health services from Tanjung Duren Selatan public health center, during February 2016. A total of 1140 subjects were recruited by consecutive sampling. The results show that the percentage of patients referred was 205 (18.0%). Patients referred were mostly chronic disease 128 cases (60.9%). According to the National Health Insurance (JKN) membership status, as many as 136 cases (19.3%) were referred, and as many as 70 cases (16.1%) non-JKN participants were referred. Cases referred by the majority age group aged 60-79 years were 85 people (41.5%) and generally women were 113 cases (55.1%). There was a significant relationship between the status of chronic diseases ( $p = 0.000$ ), non-communicable diseases ( $p = 0.000$ ) and age ( $p = 0.000$ ) with referral events. Public health center are expected to improve health services so that the number of patients referred does not exceed the specified referral ratio standard.

**Keywords:** Referral, National Health Insurance, Public Health Center



## FACTORS THAT INFLUENCE THE EXTRAORDINARY EVENT OF CHIKUNGUNUS SUSPEK IN JASRI VILLAGE SUBAGAN SUB-DISTRICT AND KARANGASEM DISTRICT 2017

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### ABSTRACT

Chikungunya is an infectious disease with symptoms of fever, joint pain, and rashes caused by the chikungunya virus (CHIKV) which is transmitted through mosquito bites. In 2017, an extraordinary event (KLB) occurred with 61 suspected cases of chikungunya in Jasri Village, Karangasem Regency. This study aims to identify factors associated with the occurrence of chikungunya. Analytical design with case control design using primary data from interviews and observations. Case samples were collected with criteria recorded in medical records and residing in Jasri Village and control samples were collected with criteria that resided around patients. A sample of 38 cases and 38 controls used a purposive consecutive sampling technique. The results showed statistically significant variables related to chikungunya events were variables of family members suffering from chikungunya with a risk level of 23.6 times, lighting with a risk level of 4.3 times, the condition of the natural landfill with a risk level of 3.9 times, and work as a protective factor of 0.3 times. While variables that are not related or not significant to the incidence of suspected chikungunya include the condition of the landfill, non-landfill conditions, the habit of draining the landfill, the habit of closing the landfill, the habit of burying used goods, the habit of using abate, the habit of hanging clothes on the wall, and the habit of using mosquito nets. To the Karangasem I Puskesmas to maintain promotive and preventive efforts on the Eradication of Mosquito Nest (PSN), improve the recording and monitoring of chikungunya sufferers, and to the community to continue to civilize PSN, maintain 3M plus habits, improve lighting of the house and the environment around the house.

**Keywords:** Chikungunya, Extraordinary Events, Karangasem, Behavior, Environment, Puskesmas





## **FACTORS THAT INFLUENCE THE BLOOD CHOLESTERASE ACTIVITY OF VEGETABLE FARMERS USING PESTICIDES IN TLOGOLELE VILLAGE, BOYOLALI**

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### **ABSTRACT**

Pesticides have been used extensively in agriculture in pest control. One of the health effects of improper use of pesticides is poisoning. The World Health Organization (WHO) estimates that there are around 5 million cases of accidental pesticide poisoning and 20,000 deaths per year due to pesticide poisoning. The most recommended pesticides for agriculture are the organophosphate group. Organophosphate compounds can enter the human body through oral, inhalation, and skin. The mechanism of organophosphate poisoning is the inhibition of the action of the cholinesterase enzyme which results in the accumulation of acetylcholine. To determine the blood cholinesterase activity of vegetable farmers using pesticides in Tlogolele Village, Boyolali Regency and analyze the factors that influence it. This research was an observational analytic study, with cross sectional design. The research sample of 70 people. Cholinesterase activity examination uses the DGKC (Deutsche Gesellschaft für Klinische Chemie) method to determine the presence of poisoning, while the characteristic data is obtained by questionnaire. Data analysis using unpaired T test and Spearman test. Examination of 70 samples showed 5.7% (4/70) abnormal or low blood cholinesterase activity. Age, nutritional status, smoking habits, PPE usage, pesticide dosage, frequency of spraying, and last time spraying did not show a significant relationship with blood cholinesterase activity. While the length of work ( $p = 0.023$ ,  $r = 0.27$ ) and length of service ( $p = 0.021$ ,  $r = 0.28$ ) showed a significant relationship with blood cholinesterase activity. There is 5.7% low blood cholinesterase activity. Length of work and length of work spraying showed a significant relationship with blood cholinesterase activity.

**Keywords:** Cholinesterase, Pesticides, Boyolali



## HEALTH DETERMINANTS OF LYMPHATIC FILARIASIS INCIDENCE IN JUAI SUBDISTRICT, BALANGAN DISTRICT, SOUTH KALIMANTAN

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### ABSTRACT

Seventy two percent of districts/cities in Indonesia are lymphatic filariasis endemic areas. This study aimed to assess individual characteristics, socioeconomic environment, behavior, physical environment and health services associated with lymphatic filariasis incidence in Juai Subdistrict, Balangan District, South Kalimantan. This was a case control study conducted from October 2014 until January 2015. Subjects were assigned by consecutive sampling into cases and controls, each comprising 38 subjects. Data were obtained from secondary data and interviews. Statistical analysis was by chi-square test and multivariate logistic regression, using SPSS. Lymphatic filariasis incidence was significantly associated with age (OR=5.32, 95% CI:1.99-14.16), occupation (OR=3.04, 95% CI:0.95-9.75), knowledge about lymphatic filariasis prevention by avoiding mosquito bites (OR=3.75, 95% CI:1.37-10.26) and presence of water hyacinths (OR=3.32, 95% CI:1.3-8.54). Subjects who were  $\geq 41$  years old, had an at-risk occupation (rubber farmer) and had water hyacinths in their neighborhood, were at 56.5 % risk for developing lymphatic filariasis.

**Keywords:** Health Determinants, Lymphatic Filariasis, Risk Factors



## IFN GAMMA AND IL-10 RESPONSES IN CHILDREN LIVING WITH ACTIVE TB ADULT REFLECT DISEASE DEVELOPMENT.

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### ABSTRACT

Mycobacterium tuberculosis is transmitted by human-to-human through the air via inhalation and children living with active tuberculosis (TB) adults are at higher risk for infection and disease development. However, it remains unclear why only 5 to 10 percent of infected individual will develop TB. Interferon gamma (IFN gamma) and Interleukin10 (IL-10) might play a role in TB protection. This study aimed to determine the IFN gamma and IL-10 plasma levels in children living with active TB adults. In a cross-sectional study design, 73 children living with 56 active TB adult for at least 8 weeks were recruited and clinical examination, sputum, chest x-ray and tuberculin test were performed. Children with clinical signs suspect on TB designated as sick. In a subset of the children, plasma level of IFN gamma and IL-10 were measured by Enzyme-Linked Immuno-Sorbent Assay (ELISA). The peripheral blood mononuclear cell (PBMC) is separated and 16S ribosomal RNA detected by polymerase chain reaction (PCR) also done in sub sample children. IFN gamma plasma level tend to be higher on sick children, IL-10 tend the same between sick and non sick children, the ratio IFN gamma over IL-10 was differed significantly between two groups. All subsamples was infected according to 16SrRNA examination. Plasma level of IFN gamma and IL-10 could reflect disease development in children living with active TB patient. Though tuberculin test is considered as an early detection of TB in endemic setting, children who showed no clinical symptoms have elevated plasma level of IFN and IL-10. These children need prompt TB therapy as they are potential for Mtb reservoir later in their adult time.

**Keywords:** Tuberculosis, Children, IFN Gamma, IL-10



## IMPROVING PARTICIPATION OF PRIVATE PHYSICIAN IN ORDER TO INCREASE CASE DETECTION RATE OF CHILD TUBERCULOSIS WITH ACTIVE MONITORING METHODS

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### ABSTRACT

Tuberculosis in children (Child TB) was still a serious health problem in Indonesia and had not received much attention compare than adult tuberculosis. Lack of coordination between governmental departments and low attention from the stakeholders made child TB elimination, especially in children, made the incidence had increased from year to year. In addition, some report say that many private physician (PP) as the spearhead in the discovery of new cases of TB in children had low skill and knowledge in child TB. There were many TB government officers who have not been able to maximize their function as facilitating agents for TB elimination programs in rural health care. Hence, it is important to conduct a study to improve and maximize existing systems to increase the coverage of child TB by PP. The method used is a quasi-experimental study using a two-month scheduled intervention and monitoring method to PPs in two small cities in south Kalimantan, Banjarbaru and Martapura. Interventions were given to PPs in Banjarbaru while others were in Martapura teted as controls. Post-intervention analyzes were performed pre and post-intervention using STATA statistics. The study produced data on the increase in the number of TB findings of children by PP in the intervention areas compared to control areas. Our research leads to the conclusion that the scheduled tutorials and scheduled monitoring given to DPMs increase the TB TB finding rate. This result is expected to be used as a basis for policy making by the stakeholder so that the elimination program can run well for the achievement of a 2030 TB-free Indonesia.

**Keywords:** Child TB; Rivate Physician; Active Monitoring; CDR Increase



# KNOWLEDGE AND ATTITUDE OF DOCTORS TOWARDS HEALTH PROMOTION PROGRAMS IN FIRST LEVEL HEALTH FACILITIES

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## ABSTRACT

Doctors have a strategic position in health promotion activities in First Level Health Facilities (FKTP), especially in Communication, Information and Education (IEC) services for patients, families and communities in their working areas. However, the involvement of doctors in health promotion services still needs to be optimized. This study aims to describe the knowledge and attitudes of doctors towards health promotion activities in FKTP. Descriptive research was conducted in May to December 2017 in the city of Semarang with 50 doctors in FKTP in collaboration with the Health Social Security Administration Agency including Puskesmas, Pratama Clinic, as well as private doctor practices. Data were collected through questionnaires and interviews, then analyzed descriptively. All respondents have a good attitude towards health promotion and consider that health promotion is important to be implemented. However, as many as 42% of doctors have low knowledge related to the health promotion strategy, which is an obstacle for doctors in achieving health promotion goals, because doctors are less able to implement health promotion strategies that fit the needs of patients, families and the community. So training is needed on health promotion strategies for doctors to support their role in health promotion.

**Keywords:** Doctors, First Level Health Facilities, Attitudes, Knowledge, Health Promotion



## **NUTRITIONAL STATUS PROFILE IN CHILDREN IN THE WORK AREA OF PANTOLOAN COMMUNITY HEALTH CENTER 2019**

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### **ABSTRACT**

Good nutritional status can occur if the body gets enough nutrients that are used efficiently, so as to enable physical growth, brain development, work ability to reach optimal health levels. Poor nutritional status is an unhealthy condition caused by insufficient food needed by the body. While more nutrients occur when the body gets excessive nutrients. The purpose of this study was to determine the nutritional status of children in the Pantoloan Community Health Center. This study uses a descriptive research design by looking at BMI by age and height by age based on the CDC 2000 with analysis using SPSS 24. From the results of research by the nutritional status based on BMI for age, nutritional status of children is found lacking as much as 4 (2.9%), it is even less 1 (0.7%), although there are still many normal nutritional status by 88 people (63.8%) as well as in get overweight were 29 people (21%) even obese as many as 16 people (11.6%). And it was found that children who had height less than 34 people (24.6%) even very less as many as 14 people (10.1%) although there were still many who had normal height of 89 people (64.5%). Based on Body Mass Index (BMI) according to age found that the nutritional status of children who lack by 2.9% even very less 0.7% even though there are many who have normal nutritional status of 63.8%, besides being overweight by 21%, obesity by 11.6%. Based on height according to age the nutritional status of children in the normal category was 64.5%, but there were respondents who experienced less high nutritional status by 24.6%, even very less by 10.1%

**Keywords:** Nutritional Status, Elementary School, Body Mass Index



## **OPPORTUNITIES FOR THE IMPLEMENTATION OF DBD PARTICIPATORY MAPPING TRAINING MODEL FOR CADRE JUMANTIK**

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### **ABSTRACT**

Dengue hemorrhagic fever (DHF) is an environmental and communal disease. Dengue prevention needs to involve the community which is generally represented by jumantik cadres. Increasing public awareness of behavioral and environmental factors needs to be improved. The purpose of this study is to examine the opportunities for using participatory DHF mapping training models and their risk factors for jumantik cadres. The study was conducted in October 2013 - January 2014 with a non-experimental design. Subjects were pneumatic cadres from four villages in Malang with the highest number of DHF sufferers and puskesmas staff. The training is carried out for one day. Mapping is based on Google Earth data. Risk factors for dengue include the location of residence, location of ovitrap, and larva positive house. DHF factors include the presence of DHF sufferers in the last six months. Data on jumantik cadres' perceptions of mapping training and its sustainability was collected through a questionnaire three months after the training. Data on the role of the puskesmas for the sustainability of the mapping were collected through interviews with puskesmas officials. Quantitative data were analyzed by tabulation. Qualitative data is used to support quantitative data. The use of google earth maps and the tools provided to compile maps were felt to be helpful to most participants. The ability of participants to compile maps varies, while the ability to analyze and make plans is largely lacking. A small number of cadres claimed to have carried out activities related to DBD mapping training. Jumantik cadres and a small number of puskesmas have tried to do the mapping independently but have experienced difficulties. This training model has the potential to be further developed by taking into account the characteristics, methods, and abilities of the participants as well as the participation of the puskesmas for its sustainability.

**Keywords:** Training, Participatory Mapping, DHF, Cadre Jumantik



# **POLICY IMPLEMENTATION OF CERVICAL CANCER EARLY DETECTION PROGRAM THROUGH VISUAL ASSET INSPECTION AT PADANG CITY HEALTH CENTER**

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## **ABSTRACT**

Cervical cancer is the 4th leading cause of death in women worldwide and is the second highest type of cancer after breast cancer in women in Indonesia. In 2018, an estimated 311,000 deaths from cervical cancer in the world. The prevalence of cervical cancer in Indonesia is 23.4 per 100,000 population with an average death of 13.9 per 100,000 population. The government has launched an early detection program for cervical cancer using the Visual Acetate Inspection (IVA) method. Coverage of IVA in Padang City in 2018 is still very low at 18%. This study aims to determine the implementation of cervical cancer early detection program policies with the IVA method in the Padang City Health Center. The study uses qualitative methods with 27 informants. Data analysis using method triangulation and source triangulation. The results showed that the implementation of cervical cancer early detection program policy with IVA method did not run as expected. The policies carried out have not been maximized, the implementation was only in the form of a circular from the Mayor of Padang. The number of implementing staff is in accordance with the specified rules, but most have not been trained. Facilities and infrastructure are complete. There is no special allocation fund for program development. Suggestions for relevant agencies are to re-train or increase the number of trained personnel, conduct evaluations, monitor program achievements, and further research on staff motivation and psychosocial support for women of childbearing age to do IVA.

**Keywords:** Cervical Cancer, Early Detection, Policy, IVA





## RELATIONSHIP BETWEEN LATENT TUBERCULOSIS AND CONTACT IN TUBERCULOSIS PATIENTS IN THE TAMBORA AND PENJARINGAN DISTRICTS, JAKARTA

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### ABSTRACT

Latent tuberculosis is still a problem in Indonesia, the absence of symptoms in latent tuberculosis patients makes patients feel they do not need treatment. Many factors influence a person to become latent tuberculosis, such as factors from a humid home environment, lack of sunlight and ventilation, economic factors, history of contact with tuberculosis patients and immune factors. The purpose of this study was to analyze the relationship between latent tuberculosis events and contact with tuberculosis patients. This study uses research data on the role of gamma interferon as a biomarker of BCG vaccine effectiveness. The study began in May - August 2018, using a cross-sectional study design, patients were taken at Puskemas Tambora and Penjaringan Districts, respondents' inclusion criteria that had complete examination records namely IGRA examination and contact history with tuberculosis patients, then the data were analyzed by chi method square, number of respondents 421 people. The results obtained were 265 female respondents (62.9%), age range of respondents 21-40 years totaling 186 (44.2%) people, IGRA positive 123 (29.2%) people, respondents who had a history of contact with tuberculosis patients 105 people and no history contact 316 people. The prevalence of latent tuberculosis by 29 percent, the prevalence of being latent tuberculosis in respondents with a contact history of 33.3 percent and without a contact history of 27.8 percent. The results of the analysis did not reveal a significant relationship between the incidence of latent tuberculosis with a history of contact with tuberculosis patients ( $p = 0.284$ ).

**Keywords:** Latent TB, Contact History, Tuberculosis



## RELATIONSHIP BETWEEN FAMILY FUNCTION WITH STUNTING STATUS (STUDY IN THE WORK AREA OF KEBONDALAM PRIMARY HEALTHCARE IN PEMALANG REGENCY)

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### ABSTRACT

Stunting is a condition of children aged 0 - 59 months where height according by age is under minus 2 Standard Deviations (<-2SD) from the WHO median standard. Family function is a measure of the function of a family that can affect the child's growth and development. This study was retrospective cohort design study and conducted on July 2019 in the work area of Kebondalem Primary Healthcare in Pemalang Regency with a sample of toddlers aged 6-24 months. The samples were selected based on the multiple sampling technique, cluster and consecutive technique. The variables of the study were stunting, family Function, father's Education, mother's Education, Income, Scream Score, Mother's Employee Status, Nutrition, immunization status, and hygiene, morbidity. Data collection was carried out by anthropometric secondary data, and interviews with questionnaires that was certified for ethical clearance. The analysis used logistic regression test. Total samples were 142 stunting and non-stunting toddlers. Family Function RR=3,139 (p= 0,017; 95%CI 1,226-8,037), morbidity RR=2,875 (p=0,008; 95%CI 1,325-6,236), Mother's Employee Status RR=0,353 (p=0,017; 95%CI 0,101-1,232) were being for fixed model. Family Function was relation to stunting with morbidity and Mother's Employee Status as a confounding variable. Intervention for family function can be improved for Stunting Program.

**Keywords:** Stunting, Family Function



# RELATIONSHIP OF NUTRITIONAL STATUS AND SMOKING BEHAVIOR IN THE HOUSE WITH OCCURRENCE OF PNEUMONIA IN CHILDREN IN THE HOSPITAL OF THE SUNDAY MARKET HOSPITAL HOSPITAL IN APRIL MONTHS-MAY 2019

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## ABSTRACT

Pneumonia is the leading cause of death in toddlers in the world. Risk factors for pneumonia can come from host factors and environmental factors. The host factor causing pneumonia is nutritional status where the colonization of pathogenic microorganisms is easily formed due to a decrease in the immune system. One of the environmental factors causing pneumonia is exposure to cigarette smoke which is very dangerous for the body, especially if exposed to children under five years old whose immune system is not yet mature so there is no defense system to fight the microorganisms that cause pneumonia. This study was an observational analytic study with a cross-sectional design in 33 toddler patients in Pasar Minggu Hospital, to determine the relationship between nutritional status and smoking behavior in the home with the incidence of pneumonia. Retrieval of research data using medical record sheets and z-score measurements using the BB/U index to obtain nutritional status and questionnaire sheets to obtain smoking behavior. Data were analyzed using the SPSS program with the Chi-Square test. There was no relationship between nutritional status and the incidence of toddler pneumonia ( $p = 0.732$ ) and there was a relationship between smoking behavior and the incidence of toddler pneumonia ( $p = 0.021$ ). The results showed that smoking behavior in the home can increase the incidence of pneumonia in infants. Therefore it is necessary to increase family awareness so as not to smoke near children.

**Keywords:** Smoking Behavior, Pneumonia, Nutritional Status



## **RELATIONSHIP WITH NURSING STRESS WITH EVENTS OF STUNTING IN BADUTA IN PASIRKARAG VILLAGE PANDEGLANG DISTRICT, BANTEN PROVINCE**

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### **ABSTRACT**

Parenting stress is one of the indirect factors causing stunting. Parenting stress is associated with decreased quality and effectiveness of parenting behavior. The Ministry of Health designates six sub-districts in Pandeglang Regency as the focus location (locus) for stunting problems. To find out the relationship between parental stress and the incidence of stunting in Buta in Pasirkarag Village, Pandeglang Regency, Banten Province. This research uses a cross sectional research design with a survey method, the sample taken in the form of total sampling with univariate and bivariate analysis between stressful care that contains 29 questions with the measurement of the height of a young child in accordance with the Z score. The results of the statistical analysis of the P value > 0.05, namely the P value 1,000 which showed no relationship between parental stress and the incidence of stunting.

**Keywords:** Stunting, Parenting Stress, Pandeglang



## **RISK OF GESTATIONAL HYPERTENSION TO NUTRITIONAL STATUS ON CHILD GROWTH**

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### **ABSTRACT**

Many studies have explored and shown greater dysfunction gestational hypertension and perinatal outcome. However, rare studies have explored effect to developmental impairment or metabolic dysfunction in later life. Therefore, this study was shown the risk of gestational hypertension induces nutritional status on child growth. Descriptive analytic with cross-sectional designed was performed. Samples were patients in mother and child hospital and community health centers of hypertension during pregnancy. Data obtained from primary data through a checklist to determine whether there is a risk of pregnancy hypertension history to the nutrition child growth, then analyzed with a Pearson chi-square and alternative fisher tests. Increasing gestational age in line with the increase the number of mother who experience of hypertension and more risk on child nutritional status, from first to third trimester respectively (OR=0.645, OR=1.866 dan OR=2.331). The prevalence of gestational hypertension on nutritional status of children's growth effect is high enough. In this study, almost predictors were not statistically significant however, odds ratio has value on it is potential risk. Therefore, result may valueble and can contribute recommendation for the care of pregnant women.

**Keywords:** Gestational Hypertension, Growth, Preeclampsia, Nutritional



# ROLE OF VARIATION OF MANNITOL TREATMENT IN ACUTE KIDNEY INJURY IN SPONTANEOUS INTRACEREBRAL HAEMATOMA PATIENTS

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## ABSTRACT

Spontaneous Intracerebral haematoma is an extravasation of blood to cerebral parenchyma. This blood may build up intracranial hypertension that needs strong antidiuretic agents to reduce the tension inside the brain. Mannitol is a drug of choice to reduce the high intracranial pressure (ICP). However, mannitol may cause acute kidney injury (AKI) because the nephrotoxicity content. There are many variations in using mannitol to treat high ICP in Indonesia. This study tries to present data of correlation of pattern of mannitol in incidence of AKI in stroke haemorrhage patients. This is a cohort retrospective study with sample of 33 patients. Patients were enrolled during 2018 in Cileungsi District Hospital, West Jawa, Indonesia and being treated with 20 % mannitol dose 0.5-1gr/kg body weight. Data was analysed by chi-square test with STATA 15 software. 9 patients (27,3%) were diagnosed as AKI, 5 of them were males. Mean length of stay was 10 days, mean blood pressure 188/110 mmHg, 5 of them had a craniotomy. 6 patients were diagnosed as AKI after 5 days enrolled to the hospital, 5 patients were mild-grade AKI and 6 patients were improved when they were discharged from the hospital. There was no correlation of pattern of mannitol infusion with incidence of AKI ( $p=0.279$ ). Pattern of mannitol infusion was not related with AKI in ICH patients.

**Keywords:** Spontaneous ICH, Mannitol, AKI.



## THE CORRELATION BETWEEN WORK STRESS AND BLOOD CORTISOL LEVELS AMONG TEXTILE INDUSTRY WORKERS

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### ABSTRACT

The purpose of this study was to identify scientific evidence about the relationship between work stress and blood cortisol levels in textile industry workers. The research method used was an analytic survey using a cross-sectional design. The number of respondents was 75 female workers in the textile industry. Job stress is measured using a validated DASS-42 questionnaire. Blood cortisol levels were measured using the ELISA method in units of  $\mu\text{g/dL}$ . The research data was taken at 6:00 to 8:00 in the morning. The statistical test used was Pearson Product Moment using SPSS version 23 software. The results showed that there was a relationship between work stress and blood cortisol levels in textile industry workers ( $r = 0.323$ ;  $p = 0.005$ ). The coefficient of determination of work stress on blood cortisol levels is 10.4%, while the remaining 89.6% is influenced by other factors. This study concludes that there is a relationship between work stress and blood cortisol levels in textile industry workers.

**Keywords:** Blood Cortisol Levels, Textile Industry Workers, Work Stress



## THE EFFECT OF FAMILY APGAR ON THE QUALITY OF LIFE PATIENTS DM TYPE 2

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### ABSTRACT

Indonesia is one of the 10 countries with the highest number of DM with a prevalence of DM in urban areas of 5.7%. According to the Indonesian Center for Health Data and Information, the proportion of diabetes mellitus in Malang City is 2.3%. The high rate of diabetes mellitus in Malang is due to the lack of proper application of family functions in people with type 2 diabetes. The obstacle that arises is that most people underestimate this type of metabolic disease so that it cannot be detected earlier. The role of the family in the management of type 2 diabetes mellitus is believed to have an influence on the quality of life of people with DM. To analyze the effect of family function based on Apgar family on the Quality of Life of type 2 DM patients. This study was an observational analytic study with a cross sectional approach with subjects with type 2 diabetes mellitus in the Internal Medicine Clinic of Aisyah Hospital in Malang. Implementation in 2019. Research subjects 95 people with Simple Random Sampling. Data collection by questionnaire and interview. Analysis using the Spearman test. The Spearman correlation test results obtained apgar significance value of Quality of Life of 0.000, which means there is a significant relationship ( $p < 0.05$ ). Appearance correlation coefficient on Quality of Life is 0.930, which means the nature of the strength of the relationship is very strong. There is a very strong influence (0,000) between Apgar Family on the Quality of Life of type 2 DM patients.

**Keywords:** Apgar Family, Quality of Life, DM type 2





# THE EFFECT OF HOLISTIC COMPREHENSIVE HEALTH SERVICE APPROACH THROUGH FAMILY FUNCTIONS ON OPTIMIZING THE NUTRITION STATUS OF JUNIOR HIGH SCHOOL STUDENTS

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## ABSTRACT

Nutritional status problems have many causes, including genetic, body metabolic conditions, behavior, environment, culture, and socioeconomic factors. One environmental factor that receives relatively limited attention is that children are exposed to undue stress, especially family stress. One of the factors influencing a child's nutritional status is his family. Family functions that run well can optimize the process of growth and development of children which can be described by the nutritional status. Optimization of nutritional status in children can not only be done from a clinical approach alone but needs holistic comprehensive management. The purpose of the study was to analyze the effect of a holistic comprehensive health service approach through family functions on optimizing the nutritional status of junior high school students. This study was an observational analytic study with a cross sectional approach with the subjects of "Z" SMPN Malang students. Implementation in May-August 2019. The research subjects were 265 people with multistage random sampling. Data collection by interview. The analysis is displayed in the form of frequency distribution and correlation using the Spearman test and logistic regression. Family function is quite influential on nutritional status ( $r = 0.445$ ). In logistic regression, the equation  $Y = 8.563 - 0.582X_1 - 0.992X_2 - 0.606X_3$  is obtained. The most influential family function is partnership of 99.2%. Partnership describes communication, mutual sharing, mutual complementarity between family members in all problems faced by family members, as well as the level of deliberation in making decisions and or resolving a problem that is being faced with other family members. Comprehensive holistic health service approach is sufficient effect on nutritional status ( $r = 0.463$ ). The holistic comprehensive health service approach gives sufficient influence on the nutritional status of students in Malang City's "Z" Junior High School.

**Key words:** Nutritional status, APGAR Family, Holistic Comprehensive



## THE RELATIONSHIP BETWEEN MALNUTRITION AND THE OCCURRENCE OF ANXIETY AND DEPRESSION IN YOUTH IN YOGYAKARTA

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### ABSTRACT

Nutrition problems in Indonesia are currently entering into multiple nutrition problems. The prevalence of adolescents with obese nutritional status aged 13-15 years reaches 8.3%. Weight has a relationship with mental health problems. A person's appearance can cause dissatisfaction which can lead to low self-esteem, depression and anxiety. Based on this background, this study aims to determine the relationship between malnutrition and the incidence of anxiety and depression in adolescents in Yogyakarta. The research method uses a cross sectional approach. The research sample was junior high school adolescents who were selected by purposive sampling. The way to collect data is by conducting anthropometric examination and screening for anxiety and depression (HADS questionnaire). Data analysis using chi square. The research respondents consisted of 28 men and 47 women. Age range between 14-18 years. Respondents who experienced malnutrition numbered 27 people (26%) with details of overweight 9 people, 18 people were obese and none were underweight. Anxiety and depression screening results were obtained by 26 people. There are 10 adolescents with malnutrition who experience anxiety and depression. By using chi-square analysis, the significance value is 0.746. The results of this study are in line with research by Sajogo (2012) and Kinanti (2010) which concludes that there is no relationship between overweight-obesity and depressive symptoms in private high school adolescents in Surabaya and North Sumatra. The low prevalence is possible because of the level of social support, the influence of the religious-based school environment. Besides that it is possible because of the limited number of samples, the number of schools and the unequal number of malnutrition samples. The conclusion of this study there is no significant relationship between malnutrition with the incidence of anxiety and depression in adolescents in the city of Yogyakarta.

**Keywords:** Anxiety, Depression, Malnutrition, Adolescents



## THE ROLE OF SOCIAL ASSOCIATION IN EFFORTS TO IMPROVE SLEEP QUALITY IN FURTHER AGES

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### ABSTRACT

Indonesia is entering an aging society. That is, the number of elderly or elderly population reaches more than seven percent of the total population. This fact makes the elderly in Indonesia face a number of challenges in running their lives. The elderly have less time in the sleep phase with rapid eye movements (REM-rapid eye movement) and deep sleep. The elderly male sex disorder more sleep than women. Because sleep disorders are known to be associated with high levels of morbidity due to medical and psychosocial problems. Sleep disorders consist of primary insomnia, hypersomnia, nakolepsy, and apnea. This study aims to identify sleep quality and sleep disorders in the elderly. This type of research is descriptive with cross sectional approach. The population in this study were all elderly in Binjai elderly social services as many as 180 people, with a total sample of 70 respondents who were determined by purposive sampling technique. Sources of research data are primary data and secondary data, data are analyzed univariately, and research instruments use structured questionnaires. Based on the results of data analysis, most of the elderly in the category of having poor sleep quality were 54.3 percent. Most of the elderly have mild sleep disturbance, 84.2 percent. The role of social institutions is to hold a variety of activities for the elderly in the form of recreation and skills, so that the quality of life of the elderly is more optimal. and practice relaxation techniques to improve mental and psychological peace in the elderly.

**Keywords:** Role of Social Institutions, Seniors, Sleep Quality



## THE CORELATION BETWEEN WELDING FUME EXPOSURES WITH FORCE EXPIRATORY VOLUME IN ONE SECOND

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### ABSTRACT

Exposure to welding fumes cause various health problems in workers like respiratory distress and functional impairment which the inability to inspire and the inability to exhale (airway obstruction). Research using cross-sectional design with using primary data obtained by questionnaire and examination of the forced expiratory volume in first second. The number of respondents are 130 welders and people aged between 19-55 years in this study. From the results of statistical analysis, there are two factors, Total fume exposure with a regression coefficient of  $r = -0,005$  (CI= -0,01; -0,001),  $P = 0,018$  and the body height with the regression coefficient of  $r = 0,04$  (CI= 0,03 ; 0,05),  $P = 0,000$ . Linier equation for prediction force expiratory volume in first second is  $Y = -2,76 + (-0,004 \times \text{Total fume exposure (unit)}) + (0,036 \times \text{body height (cm)})$ . After looking correlation between total fume exposure, body height with forced expiratory volume in first second, so Linier equation for prediction force expiratory volume in first second can use in welder.

**Keywords:** Total Fume Exposure, Body Height, Forced Expiratory Volume In First Second