



ICODIGIPHAS

**Kampus
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INDONESIA JAYA



PROCEEDING

International Conference

Communication Digital Pharmacy Health And Social Sciences

(ICODIGIPHAS)

**“ TRANSFORMING HEALTHCARE THROUGH DIGITAL
COMMUNICATION AND TECHNOLOGY ”**



UNIVERSITAS PERINTIS INDONESIA

PADANG, 15-16 JULY 2021

PROCEEDING
International Conference

**“ TRANSFORMING HEALTHCARE THROUGH DIGITAL
COMMUNICATION AND TECHNOLOGY ”**

JULY, 15th-16th 2021
PADANG





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CONFERENCE PROGRAM

INTERNATIONAL CONFERENCE COMMUNICATION DIGITAL PHARMACY HEALTH AND SOCIAL SCIENCES (ICODIGIPHAS) 2021 UNIVERSITAS PERINTIS INDONESIA

Day 1: Thursday, July 15th, 2021

TIME	ACTIVITIES	CHAIR PERSON
07.00- 08.00	Registration	Committee
08.00 - 08.05	1. Indonesia Raya' song	Committee
08.05 - 08.10	2. Mars of UPERTIS	Committee
08.10 - 08.15	3. Do`a	Committee
	Welcome Speech :	
08.15 - 08.25	1. Chairman of ICODIGIPHAS 2021	Dr.rer.nat. Ikhwan Resmala Sudji, M.Si
08.25 - 08.35	2. Perintis Fondation	Rafnelly Rafki, SE, SH, MBA, M.Kn
08.35 - 08.45	3. Rector of UPERTIS	Yendrizal Jafri, S.Kp, M.Biomed
08.45 - 08.55	4. Vice Governor of West Sumatra	Ir. Audy Joinaldy, S.Pt., M.Sc., MM., IPM., ASEAN.Eng
08.55 - 09.00	Official Opening Gong by Vice Governor of West Sumatra and Rector of UPERTIS	Ir. Audy Joinaldy, S.Pt., M.Sc., MM., IPM., ASEAN.Eng Yendrizal Jafri, S.Kp, M.Biomed
	Plenary Sesion 1 :	
09.00 - 09.40	Vice Governor of West Sumatra Ir. Audy Joinaldy, S.Pt., M.Sc., MM., IPM., ASEAN.Eng	Moderator
09.40 - 10.20	2. Prof. Dr. Fasli Jalal, Sp.GK., Ph.D	Moderator
10.20 - 11.00	3. Prof. Dr. Vimal Karani	Moderator
	Plenary Sesion 2 :	
11.10 - 11.50	4. Gita Nirmala Sari, S.ST., M.Keb., Ph.D	Moderator
11.50 - 12.30	5. Dr.rer.nat. Smiths Sengkwawoh Leong	Moderator
12.30 - 13.30	Break	
13.30 - 17.00	Parallel Sesion : Oral and Poster Presentation for 10 clas	Moderator

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Day 2 : Friday, July 16th , 2021

TIME	ACTIVITIES	CHAIR PERSON
07.00 - 08.00	Registration	Committee
	Plenary Sesion 3 :	
08.00 - 08.40	6. Agus Setiawan, S.Kp., M.N., D.N	Moderator
08.40 - 09.20	7. Dr.rer.nat. Ikhwan Resmala Sudji, M.Si	Moderator
09.20 - 10.00	8. Dr. Fajar Junaedi, S.Sos., M.Si	Moderator
10.00 – 10.10	Break	Moderator
	Plenary Sesion 4 :	
10.10 - 10.50	9. Assoc. Prof. Dr. Aisyah Saad Abdul Rahim	Moderator
10.50 - 11.30	10. Dr.rer.nat. Hani Kartini Agustar, M.Sc	Moderator
11.30 - 13.30	Break	
13.30 - 17.00	Parallel Sesion : Oral and Poster Presentation for 10 class	Moderator
17.00 - 18.00	Closing Veremony	Committee

PERINTIS PADANG FOUNDATION WELCOMING SPEECH

Assalamualaikum w.w.

Good day everyone, allow me to welcome all of this conference participants by first praying our grateful and praise to Almighty God for all His blessings, grace, and mercies. I also would like to welcome you all to “International Conference on Digital Technology, Pharmacy, Health and Social Science (ICODIGIPHAS) 2021 as the series of our University first Dies Natalis.

We would like to give our gratitude to the Vice Governor of West Sumatera. Mr. Ir. Audy Joinaldy, S.Pt., M.Sc.,MM., IPM., ASEAN.Eng, since becoming our keynote speakers. Furthermore, to the Head of LLDIKTI Regional X, the Rector of Universitas Perintis Indonesia and parliaments, and to the Chairman of ICDIGIPHAS 2021 and other seminar’s organizing committee. Especially to our kindly keynote speakers and invented guests.

First of all, I would like to say thank you to the Universitas Perintis Indonesia rector and organizing committee of the conference for consistently hosting the conference. International Conference on Digital Technology, Pharmacy, Health and Social Sciences (ICODIGIPHAS) 2021, is one of event as a series of Diest Natalis from the Universitas Perintis Indonesia. We really glad to be supportive for all various activities related, such as; sports competition, science competition, community service, Perintis care, arts, UPERTIS Award, Perintis EXPO and alumni gathering both at the internal level, regional and national. At the International Conference on Digital Technology, Pharmacy, Health and Social Sciences 2021 (ICODIGIPHAS), with the theme "Transforming Healthcare through Digital Communication and Technology", conducted several activities, namely seminars, scientific publications, proceedings, scientific competitions.

As an educational foundation, we committed to always supportive and appreciate every academic and university developmental activities. We realize that positive and knowledgeable academic fields would be manifested to our institution reputation and quality. By doing this such activities, we really believe that what we are doing whould be described as a qualified and competitive activities not only by the government, and also by the other educational around this region, province, and the country.

Furthermore, I would like to say thank you once again to all keynote speakers for their time and knowledge sharing to all of us. To all of our distinguished guests and participants,

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thankyou for being here. Finally, I wish you the best of luck and enjoy the conference.

Wabillahitaufiq walhidayah assalamualaikum w.w.

Best regards,



Rafki SE.SH.M.BA.M.Kn
Vice Chairman of Perintis Padang Foundation

RECTOR'S WELCOMING SPEECH

Good morning Ladies and Gentlemen, allow me to welcome all of this conference participants by first praying our grateful and praise to Almighty God for all His blessings, grace, and mercies. I also would like to welcome you all to “International Conference on Digital Technology, Pharmacy, Health and Social Science (ICODIGIPHAS) 2021 as the series of our University first Dies Natalis.

Assalamualaikum wr wb

The Honorable : Vice Governor of West Sumatera. Mr. Ir. Audy Joinaldy, S.Pt., M.Sc.,MM., IPM., ASEAN.Eng

The Honorable : Head of LLDIKTI Regional X

The Honorable : Perintis Foundation

The Honorable : Chairman of ICODEGIPHAS 2021

The Honorable keynote speakers:

1. Ir. Audy Joinaldy, S.Pt., M.Sc., MM., IPM., ASEAN.Eng (Vice Governor of West Sumatra)
2. Prof. Dr. Fasli Jalal, Sp.GK., Ph.D (Rector of Yarsi University, Indonesia)
3. Prof. Dr. Vimal Karani (University of Reading, United Kindom)
4. Gita Nirmala Sari, S.ST., M.Keb., Ph.D (Poltekes Jakarta 3 & Osaka University, Japan)
5. Dr.rer.nat. Smiths Sengkwawoh Leong (German Cancer Consortium, DKTK-DKFZ, Essen, Germany)
6. Agus Setiawan, S.Kp., M.N., D.N (Dean Fakultas of Nursing UI)
7. Dr.rer.nat. Ikhwan Resmala Sudji, M.Si (Dean Fakultas of Health, Upertis)
8. Dr. Fajar Junaedi, S.Sos., M.Si (University Muhamadiyah Yogyakarta)
9. Assoc. Prof. Dr. Aisyah Saad Abdul Rahim (UiTM Malaysia)
10. Dr.rer.nat. Hani Kartini Agustar, M.Sc (University Kebangsaan Malaysia)

The Honorable : invited guests

The Honorable : Deans in Upertis

The Honorable : organizing committee of ICODEGIPHAS 2021 And distinguished guests
As the rector of Universitas Perintis Indonesia, I would like to say thank you to the committee of the conference for consistently hosting the conference. International Conference on

Digital Technology, Pharmacy, Health and Social Sciences (ICODIGIPHAS) 2021, is one of

event as a series of Diest Natalis from the Universitas Perintis Indonesia. We have started this activity from June 30 and will end on July 31, 2021, with various activities : sports competition, science competition, community service, Perintis care, arts, UPERTIS Award, Perintis EXPO and alumni gathering both at the internal level, regional and national. At the International Conference on Digital Technology, Pharmacy, Health and Social Sciences 2021 (ICODIGIPHAS), with the theme "Transforming Healthcare through Digital Communication and Technology", conducted several activities, namely seminars, scientific publications, proceedings, scientific competitions.

I would like to say thank you once again to all keynote speakers for their time and knowledge sharing to all of us. To all of our distinguished guests and participants, thankyou for being here. Finally, I wish you the best of luck and enjoy the conference, and also for the last word "UPERTIS UNGGUL, INDONESIA SEHAT" Wabillahitaufiq walhidayah assalamualaikum WW.

Best Regards,



Yendrizal Jafri, S.Kp., M.Biomed.

OPENING SPEECH HEAD OF ORGANIZING COMMITTEE ICODIGIPHAS UNIVERSITAS PERINTIS INDONESIA

We are pleased to present this collection papers of submitted to the International Conference on Medical And Health Research (ICODIGIPHAS) with theme “Transforming Healthcare through Digital Communication and Technology”, July 2021 15-16, in Virtual Section, Universitas Perintis Indonesia. This conference was an open gate for us to start the information, experiences, researchers as well collaboration between various academics, non academics and researchers. This expands our mutual knowledge and experiences.

The total of 110 papers from participants contributed to this proceeding and we also attached the abstract and biography from keynote speakers within the proceeding. The proceeding also presents a wide variety of research on many topic, such as health, pharmacy, communication, technology digital and social sciences. The papers use various approaches and strategies for research in the topic. It will give us different perspectives and knowledge for the development of medical, communication, technology digital and social sciences research.

A great team effort also became a big support to the succesful of the conference and proceeding. We are grateful to have hard working organizing committee as well as committed editors and board of experts who gave us the important inputs and reviews of this proceeding. We would like to express our great gratitude to Faculty of Health Sciences, Faculty of Medicine and also Faculty of Business Economics and Social Sciences, Universitas Perintis Indonesia.

Sincerely,



ICODIGIPHAS



Dr.rer.nat. Ikhwan Resmala Sudji, M.Si
Chairman ICODIGIPHAS 2021

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NURSING

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NS-01

Path Analysis of Applications For Assessing Factors Affecting the Quality of Service in Nursing

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ABSTRACT

Background: Nursing as a profession must provide professional service and competence which meet the standards of nursing practice. So that the performance of professional nurses who can contribute positively to the quality of nursing service and nursing career development. The research objective is to see the path analysis factors affecting the quality of professional nursing services in the hospital X Padang, West Sumatra.

Methods: Research Action research. Data analysis using path analysis. The study lasted six months. The subjects were nurses who work in the Nursery, Children Surgery, child IGD 75 people with educational background and S1 Nursing DIII. Data was collected by using a questionnaire motivation, human resource management, competencies of caregivers, as well as patient satisfaction. Characteristics of research subjects are determined based on education, training, work experience, and age.

Results: Analysis Research tracks the influence of age on the nurse's career (beta coefficient is 0.111), training (-, 027), education (0.136), and work experience (-,031). It can also be seen the influence of age on the quality of service (beta coefficient 0.009), training (0000), education (-0008), work experience (-, 0009). It can be concluded that the characteristics correlated weakly toward a career. Not so with the quality of service which careers to strongly correlate with a beta coefficient (1.000). In the variables of motivation seen the influence of extrinsic motivation on the nurse's career (beta coefficient is 0.208) management (.178), and intrinsic motivation (0.275). Extrinsic motivation on the other hand influences the quality of service (beta coefficient 0.003), intrinsic motivation (-0.005), management (0.006), while the nurse's career significantly affects the quality of service (beta coefficient 1.000).

Conclusions: services that can be explained with the use of exogenous independent variables of intrinsic motivation, training, education, age, extrinsic motivation, management, work experience is of 99.8%; whereas the effect of 0.2% due to variable - the other variables out of the study.

Keywords: career nurses, competence, mentor preceptor, quality child care services

NS-02

**The Relationship of Self Efficacy with Earthquake Preparedness
for People with Disabilities****Kalpana Kartika, Aldo Yuliano Mas Putra, Riyan Hidayat**

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ABSTRACT

Background: People with disabilities are reportedly particularly vulnerable to disasters. Self-efficacy is proven to have a very important role in improving student preparedness in the face of disasters. The results of interviews with five students conducted at SLB country 1 Bukittinggi, three people said they knew how to save themselves when an earthquake occurred and 2 more people did not know how to save themselves and were even confused. The purpose of this study was to determine the relationship between Self Efficacy and Earthquake Disaster Preparedness for Persons with Disabilities in SLB country one Bukittinggi in 2020.

Methods: This research is a descriptive correlation study with a sectional approach. The sample in this study was 56 respondents, using the proportional stratified random sampling method. The data collection tool used a questionnaire sheet, this study was conducted from July 30 to August 8, 2020.

Results: Univariate data analysis, most of the respondents who had Self Efficacy in the High category, were 30 (53,6 %). Most of the respondents who had the Ready category were 31 (55,4%). The bivariate analysis obtained p-value =0,036 (p <0,05) with OR 3,733.

Conclusion: It is concluded that Self Efficacy is statistically related to Earthquake Disaster Preparedness for Persons with Disabilities. It is recommended to SLB 1 Bukittinggi to provide special disaster management education for students with disabilities on an ongoing basis.

Keywords: self-efficacy, earthquake preparedness, disabilities

NS-03

Improving Creative Thinking Skills, Problem Solving Skills and Learning Outcomes through Problem Based Learning toward Students of Nursing

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ABSTRACT

Background: The challenge of learning in the 21st century is not only transmitting knowledge but also being able to create independent learners as an educational outcome. Creative thinking skills and problem-solving skills are things that students must have and need to be developed through the learning process. This study aims to improve creative thinking skills, problem-solving skills, and learning outcomes of undergraduate nursing students through problem-based learning (PBL).

Methods: This classroom action research was conducted at the University of Perintis Indonesia. The research subjects were undergraduate nursing students at Level 1. The research was conducted in two cycles. Each cycle refers to the Spiral Model by Kemmis, McTaggart, and Nixon. Data on problem-solving skills and data on creative thinking skills were obtained from the performance grading rubric and data on learning outcomes were obtained from the end of the cycle test. The research instrument consisted of observation sheets and student learning outcomes tests. The data analysis technique used descriptive analysis.

Results: The results show that PBL improves (1) the average of creative thinking skills of 65.63% with the completion rate of 89.5%, (2) the average of problem-solving skills of 64.5% with the completion rate of 88.72%, and (3) the average score learning outcomes of 58 with the completion rate of 85.

Conclusion: It can be concluded that the application of the PBL learning model can improve creative thinking skills, problem-solving skills, and nursing student learning outcomes.

Keywords: Creative thinking, knowledge, problem solving, PBL

NS-04

**The Factors Associated with the Characteristics of the Nurse in Palliative Care at
The Health Center Kambang****Endra Amalia, Lilisa Murni, Tri Putri Agustiani**

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Corresponding email: amalia.endra@yahoo.co.id**ABSTRACT**

Background: Palliative Care is caring for patients and families who have a disease that is not medically curable anymore. Palliative care is aimed at maximizing the patient's quality of life as well as reducing the symptoms interfere with, reduce the pain by paying attention to aspects of psychological and spiritual. The reality in the field of nurses' knowledge is still limited about palliative care, resulting in the less optimal provision of palliative care on the patient and his family. This study aims to determine whether there is a relationship of knowledge, attitude, and motivation of nurses in palliative care at the health center Kambang.

Methods: This research uses a descriptive analytical method, cross-sectional approach, with chi-square test. Techniques sampling is total sampling, a sample of 30 nurses, measuring tools using the interview.

Results: The results of the analysis showed that nurses who do palliative care as much as 50%, high knowledge about palliative care 60%, attitude good in palliative care of 56.7%, and high motivation in palliative care 70%. The results of the statistical test show that a p-value of 0.009 for knowledge, 0.003 for attitude, and 0.017 for motivation.

Conclusion: In conclusion, there is a relationship of knowledge, attitude, and motivation of nurses with the implementation of palliative care. It is suggested that the nurse is to improve the knowledge and good attitude in the implementation of palliative care at the health center Kambang.

Keywords: motivation, palliative care, knowledge, nurse, attitude

NS-05

Development of Android-based Mobile Application “Cyber Gen” for Genetic Counseling Implementation among Thalassemia Patients

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ABSTRACT

Background: Thalassemia is a genetic disease that causes various physical and psychosocial problems. Nurses as counselors need to provide genetic counseling interventions as a strategy to overcome these problems through information technology media such as Android-based mobile applications.

Methods: This research method uses Research and Development design which aims to design, produce and test the validity of the products that have been produced. The research phase uses a qualitative approach to find out the problems and needs of the android application for the implementation of genetic counseling. Furthermore, the system development stage uses the FAST (Framework for Application of Systems Technology) method which consists of preliminary investigation, problem analysis, requirements analysis, decision analysis, system design, and construction. Testing of the Android-based Cyber Gene mobile application for the implementation of genetic counseling in thalassemia patients was carried out by testing all existing menus using secondary data.

Results: The result of this research is the Android-based Mobile Application “Cyber Gene” for Genetic Counseling Implementation among Thalassemia Patients. Nurses, thalassemia patients, and their caregivers can use this application for the comprehensive genetic counseling intervention process with instant messaging through the Live Consultation menu based on the predetermined procedure. Testing the system was installed on android version 1.1 with the result that all menus and submenus on the system can be accessed and work well.

Conclusion: Therefore, the Cyber Gene application can be used for the implementation of genetic counseling in thalassemia patients, both in hospitals and other health facilities.

Keywords: android-based, cyber gen, genetic counseling, mobile application, thalassemia

NS-06

The Effect of Health Education on the Health Cadre's in Conducting Early Detection of Schizophrenic Patients in The Work Area of Rasimah Ahmad Health Center

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ABSTRACT

Background: Early detection is a form of prevention to prevent the recurrence of mental disorders. In this detection, there needs to be participation from all components of the community, one of them being mental health cadres. From observations in the field, there are still daily researchers who find people with mental disorders roaming the streets and there are still mental health cadres who do not understand the early detection of people with schizophrenia. The purpose of this study was to determine the effect of health education on the ability of mental health cadres in the early detection of schizophrenic patients in the Rasimah Ahmad Community Health Center.

Methods: This type of research was a quasi-experimental design in the form of one group pretest-posttest design. The sample in this study was mental health care by inducing the total sampling technique. The total sample is 43 mental health cadres using the early detection of mental disorders. With univariate and bivariate analysis using computerized SPSS application using the paired sample t-test test.

Results: Based on the results of the study, it was found that the average score of the ability of mental health cadres before was 5.28, which was the inability category. And after the intervention increased to 9.47 categories of not able to p_value 0,000 ($\alpha = 0.05$) and t arithmetic -10,897 is greater than the value of t table 2,023.

Conclusion: With the conclusion that there is a significant effect after the provision of health education on the ability of mental health cadres in carrying out early detection of schizophrenia patients. Suggestions for health workers in Rasimah Ahmad to pay more attention to the ability of soul cadres in carrying out their functions and roles, giving more attention to mental health cadres. through activities in the form of training, workshops, mental health education so that mental nurses so that mental health cadres understand early detection of people with schizophrenia.

Keywords: mental health cadres ability, health education, schizophrenia early detection

NS-07

Depression in Diabetes Mellitus Patients

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ABSTRACT

Background: Diabetes mellitus (DM) is a condition where there is an abnormality in the metabolism of carbohydrates, fats, and proteins caused by a decrease in insulin secretion or a decrease in insulin sensitivity. DM is a serious health problem worldwide and its prevalence is increasing rapidly. The increase in the number of people with diabetes can be caused by several factors, namely heredity or genetic factors, obesity, changes in lifestyle, wrong diet, drugs that affect blood glucose levels, lack of physical activity, pregnancy, smoking, stress, and the aging process.

Objective: The purpose of this study was to determine the relationship between blood sugar levels and the level of depression in patients with type 2 diabetes mellitus in the Bukittinggi health center.

Methods: This research used a cross-sectional study with 166 participants. The instruments of this study consisted glucometer and a Back Depression Inventory to measure depression.

Result: The results of univariate analysis of normal blood sugar levels were as much as (63.3%), while the level of moderate depression was (42.8%). Based on the results of the bivariate test the value of $r = .673$ means that the relationship of blood sugar levels with the level of depression correlated strongly, and obtained $p\text{-value} = .000$ which means that there is a correlation between blood sugar levels and the level of depression in patients with type 2 diabetes mellitus in Bukittinggi Health Center.

Conclusion: The conclusion is that there is a relationship between blood sugar levels and depression levels of type 2 diabetes mellitus patients in the Bukittinggi health center. It is expected that patients with type 2 diabetes should pay attention to their psychological condition so that they can control their blood sugar.

Keywords: stress, blood glucose, diabetes

NS-08

Factors Related to Bullying Behavior in Students in Junior High School-PSM Bukittinggi City

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ABSTRACT

Background: Bullying is the act of using power to hurt a good person or group of people verbally, physically, and psychologically so that the victim feels depressed, traumatized, and helpless. Teenagers who are victims of bullying are more at risk of experiencing various health problems, both physically and mentally. As for the problems that children are more likely to suffer from victims of bullying, including the emergence of various mental problems such as depression, anxiety, and social problems sleep that may carry over into adulthood, physical health complaints, such as headaches, stomachaches, and muscle tension, insecurity in the school environment, and decreased enthusiasm for learning and academic achievement.

Methods: Research conducted at PSM Junior high school in Bukittinggi City obtained data from 3 out of 10 students saying the lack of compassion from parents, 4 students who admitted to bullying because of the invitation of friends, and 3 other students who were victims of bullying. This study aims to find out if the factors related to bullying behavior in students PSM Junior high school in Bukittinggi City Year 2020. This research uses analytical descriptive research design methods with cross-sectional design. The instrument used is a Guttman-scale questionnaire. The sample in this study was 51 students with total sampling techniques.

Results: The results of this study, there were family factors with 66.7% support, school factor with no support as much as 52.9%, peer factor with category there was support as much as 78.4% and bullying behavior with category occurred as much as 54.9%. Statistical test results obtained P-Value = 0.001 ($P < 0.05$) there is a relationship between peer factors and bullying behavior in adolescents.

Conclusion: In this study, it is suggested the need for support from all aspects in paying attention to the lives of adolescents, so that adolescents grow according to a good stage of development in their lives

Keywords: family factors, school factors, peer factors, bullying behavior

NS-09

The Effect of Psychological Impact Covid-19 Based on Impact of Event Scale-Revised (IES-R) measurement on Family Planning

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ABSTRACT

Background: The COVID-19 pandemic has profoundly affected the lives of the global population. The pandemic has significantly impacted the mental health and family planning services and reproductive health so that it affects the vulnerability of unwanted pregnancies due to a decrease in the number of family planning services nationally from each type of contraceptive device & drugs. This study aims to determine the effect of psychological impact based on the Impact of Event Scale-Revised (IES-R) on family planning in couples of childbearing age during the COVID-19 period in the area of Dadok Tunggul Hitam Padang Public Health Center.

Methods: This research was carried out in June-December 2020 using a Quasi-Experimental, one-group design. Respondents in this study were couples of childbearing age (PUS) totaling 156 subjects in Koto Tengah District. The sampling technique used is simple random sampling. Data were collected using an instrument in the form of a questionnaire and using a t-test to analyze this study.

Results: The results of the statistical study showed that there was have a significant effect of psychological impact on using family planning during the COVID-19 pandemic in the Dadok Tunggul Hitam Health Center working area with a p-value = 0.000 ($p < 0.05$).

Conclusion: Through this research, by applying the concept of mental health, especially by considering the psychological aspect, it is hoped that it can contribute and make recommendations for policies/plans for the Population Planning and Family Development program in Indonesia.

Keyword: psychological impact, contraception, the impact of event scale-revised (IES-R)

NS-10

The Effect Implementation Health Tasks on Knowledge and Self Efficacy by Hypertension Family Caregivers

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ABSTRACT

Background: Hypertension at the Banja Loweh Public Health Center ranks 3rd in the 10 most diseases in 2019. Healthy Indonesia Program, Family Approach data for patients with hypertension for regular treatment is only 15.21% of 165 cases. Families have a big role in the health of family members with hypertension. This study aimed to examine determine whether family knowledge and self-efficacy were related to the implementation of health tasks for families with hypertension.

Methods: This study adopted a cross-sectional descriptive design. The population in this study was 165 hypertension family caregivers, with a random sampling of 117 people. The instrument used was standardized. Data were analyzed using the chi-square test.

Result: The results of the study found that knowledge was low (47.9%), family self-efficacy (30.8%) was low and the implementation of family health tasks was low (41.9%). Furthermore, there is a relationship between knowledge, self-efficacy, and the implementation of health tasks by hypertension family caregivers.

Conclusion: This study concludes that the implementation of health tasks for family members with hypertension is related to family knowledge and self-efficacy. This research provides a new approach to enhance these outcomes among hypertension survivors with family caregivers.

Keywords: health tasks, hypertension, knowledge, self-efficacy

NS-11

The Correlation of Extrinsic and Intrinsic Motivation with Nurse Career Development Effort

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ABSTRACT

Background: Motivation is an action that a person takes to fulfill an unmet need. Motivation is also the urge or urges that a person has to act and behave by carrying out something that has been planned. From the results of interviews with management, it is said that there is still a low level of career advancement in hospitals, and nurses' motivation to improve their careers is still low. This study aims to determine the relationship between extrinsic and intrinsic motivation with efforts to develop nurses' careers in hospitals.

Methods: The sample of this study were all nurses in the Neurology room and the emergency room at Stroke National Hospital Bukittinggi in 2019 with a total sampling technique. The instrument used is a questionnaire, the type of quantitative research with a cross-sectional approach.

Results: The results showed Extrinsic Motivation (Interpersonal Relations with $p=0.028$), (Supervision with $p=0.031$), (Organizational Policy $p=0.007$), (Work Conditions with $p=0.006$), (Salary with $p=0,027$), and Intrinsic Motivation (Belief with $p=0,001$), (Attitude with $p=0,015$), (Knowledge with $p=0,000$), because all p values are smaller than Alpha (α): 0.05, then H_a is accepted. Career planning should be an ongoing, conscious, and shared process. Neubar, 2016, states that if we want to be full-time employees, we have no choice but to commit to career and personal development.

Conclusion: The conclusion is that there is a relationship between extrinsic and intrinsic motivation with efforts to develop nurses' careers in hospitals. It is suggested to the hospital management to motivate all nurses to improve their career paths.

Keywords: extrinsic motivation, intrinsic motivation, nurse career development effort

NS-12

The Effect of Pregnant Yoga on Sleep Quality for Third Trimester Pregnant Women

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ABSTRACT

Background: Third Trimester Pregnant Women who are in the Work Area of the Rasimah Ahmad Health Center, Bukittinggi City who experience sleep disturbances. Poor sleep quality in third trimester pregnant women can lead to preterm labor. The purpose of this study was to determine the effects of pregnant yoga (pregnant yoga) on the sleep quality of third-trimester pregnant women in the Work Area of the Rasimah Ahmad Health Center, Bukittinggi City in 2020.

Methods: This research method used a quasi-experimental method with one-group pre and post-design approaches, then the data is processed using a paired test. The sample in this study was 10 respondents.

Results: The statistical test results obtained a p-value of 0.000, which means that there is an effect on the provision of pregnant yoga (pregnant yoga) on the quality of sleep for pregnant women in the third trimester in the Work Area of the Rasimah Ahmad Health Center, Bukittinggi City 2020.

Conclusion: Suggestions in this research are that the results of this study can be used as input for officers or agencies. Health-related to the problem of this research, so that it can add and improve the quality of health services, especially pregnant women trimester III in improving sleep quality.

Keywords: third-trimester pregnancy, pregnant yoga, sleep quality

NS-13

The Relationship between Cerdik Group Participation and Stroke Prevention Behavior in the Elderly in the Work Area of Kebun Sikolos Health Care Centre in Padang Panjang at 2020.

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ABSTRACT

Background: The health center's effort to overcome the problem of stroke in the elderly is the formation of a smart elderly group which is the development of the prolanis program that acts as an agent providing information, promotion, and health education in the environment around their residence. The purpose of this study was to determine the relationship of participation in cerdik groups with stroke prevention behavior in the elderly in the work area of Kebun Sikolos Health Care Centre in Padang Panjang in 2020.

Methods: This is descriptive-analytic research with a cross-sectional approach. The sample in this study amounted to 67 people with a sampling technique using consecutive sampling. Collecting data through questionnaires with univariate and bivariate analysis data processing.

Results: The univariate analysis results showed 67.2% of respondents actively participated in the cerdik group while 53.7% of respondents have good behavior in stroke prevention. Bivariate analysis showed that there was a significant relationship between participation in cerdik groups and stroke prevention behavior in the elderly with a value of $p = 0,000 (\leq 0.05)$.

Conclusions: The conclusion that can be drawn is a meaningful relationship between cerdik group participation and stroke prevention behavior in the elderly in. It is recommended that health workers can improve the program in the form of education on healthy lifestyles, motivating to play a maximum role in smart groups as well as innovating group activities of smart elderly activities and provide motivation so that the elderly play an active role in clever elderly activities so that elderly behavior in stroke prevention is better and the incidence of recurrent stroke can be minimized.

Keywords: cerdik group, participation, stroke prevention behavior

NS-14

Therapeutic Communication on Healthcare Correlates to Patients Satisfaction

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ABSTRACT

Background: Weaknesses in implementing therapeutic communication are still a problem for health officers. This affects the quality of health services that have an impact on patient satisfaction. This study determined the correlation between therapeutic communication of health officers' patient satisfaction.

Methods: This research method was the descriptive analytic design that used a cross-sectional approach. Respondents in this study were 176 patients receiving health services at the Sitiung Public Health Center, Dharmasraya District. The sampling technique used was purposive sampling. The data analysis technique in this study used Chi-square.

Results: The results showed that most therapeutic communication was in the not good category (51.7%) and patient satisfaction in the category was not satisfied (64.8%) The results of this research showed that there was a significant relationship between therapeutic communication of health officers with p-value = 0.001 (<0.05).

Conclusion: For the therapeutic communication skills of health workers to increase, it is necessary to conduct training on the application of therapeutic communication for health officers to hone effective, educative, and informative communication skills, so that patient satisfaction with health services increases.

Keywords: patient satisfaction, therapeutic communication, healthcare

NS-15

Impact of Oral Stimulation on Feeding Performance in Low Birthweight Infants

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ABSTRACT

Background: Infants with low birth weight often experience a decrease in feeding performance caused by organ immaturity. This has an impact on the failure to care for infants with low birth weight which will increase the mortality rate of low birth weight infants. Oral stimulation in the form of a touch massage on the muscle tissue around the mouth is an effective intervention to improve feeding performance. We tried to see the effect of oral stimulation on feeding performance in low birthweight infants.

Methods: In a single-blind, randomized, controlled clinical trial of 20 hospitalized infants with low birth weight, they were randomly divided into experimental (n=10) and control groups (n=10). Control received routine care while the experimental group received oral stimulation (perioral and intraoral stimulation) in addition to routine care. The intensity of feeding performance was rated using the early feeding skill assessment. Data were analyzed by SPSS version 23.0 using descriptive statistics and paired t-test.

Result: There was a significant difference between the two groups in the intensity of feeding performance after intervention ($P < 0.000$) with differences mean 6,9.

Conclusions: An early oral stimulation intervention is beneficial in low birthweight infants.

Keywords: oral stimulation, feeding performance, low birthweight

NS-16

Relationship between Conflict Management with The Performance of Nurses in Non-Surgical Rooms of Achmad Darwis Hospital

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ABSTRACT

Background: Conflict is a disagreement or struggle that arises when the balance between feelings, thoughts, desires, and behavior of a person threatened affect performance. This study aimed to determine the relationship Handling Conflict by Chief Nurse Executive room with Performance in Non-Surgical room.

Methods: Descriptive analytic study with a Cross-Sectional approach was conducted on nurses in Achmad Darwis Hospital West Sumatra Indonesia in 2020. Samples were taken in total sampling, as many as 45 people.

Results: This study showed (51.3%) of nurses expressed less performance, (65.4%) of nurses stated use less compromise strategy, (72.1%) use less smoothing strategies, (58.8%) use of collaborative strategies less, and (65.4%) use either avoidance strategy. Results of the bivariate analysis showed no significant association of compromise strategy ($p = 0.01$ and $OR = 11.375$), smoothing strategy ($p = 0.01$ and $OR = 30.667$), collaboration strategy ($p = 0.001$ and $OR = 12.500$), the strategy avoidance ($p = 0.001$ and $OR = 0.017$).

Conclusion: It can be concluded that the strategy of compromise, smoothing, collaboration, and dodge effectively improve the performance of nurses. It is expected that the head of the room to facilitate the resolution of conflicts towards constructive.

Keywords: conflict management, performance, nurses.

NS-17

Relationship between Anxiety with Blood Glucose Levels in Patients with Diabetes Mellitus in the Work Area of Rasimah Ahmad Bukittinggi Health Center

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ABSTRACT

Background: Diabetes mellitus (DM) is a chronic metabolic disorder characterized by high blood sugar levels (WHO, 2008). Blood sugar levels in DM patients are influenced by many factors, one of which is anxiety. Many people consider anxiety to be associated with increased blood sugar levels. The purpose of this study was to determine the relationship of anxiety with blood glucose levels in patients with diabetes mellitus in the Rasimah Ahmad Bukittinggi Community Health Center Working Area.

Methods: This study uses descriptive research design correlation with a cross-sectional approach where independent and dependent variables are identified at the same time. The sample amounted to 56 respondents using total sampling. Depression Anxiety And Stress Scale (DASS) was used to assess anxiety and blood glucose tester to get the value of blood sugar. Analyze the data using the Spearman test.

Result: The results of the univariate analysis showed that most of 17 people (30.4%) had the final elderly age, more than half of which were 32 people (57.1%) female, 23 people (41.1%) have a high school education, 33 people (58.9%) do not work, 26 people (46.4%) have severe anxiety, and 32 people (57.1%) bad blood glucose levels. From the results of bivariate analysis, there is a significant relationship between anxiety and blood glucose levels because of a p-value ≤ 0.05 . With this, the correlation value (r) is 0.409 which means the strength of the correlation is moderate and positive.

Conclusions: The study can be concluded that there is a relationship between anxiety and blood glucose levels in patients with diabetes mellitus. It is hoped that health workers will assess more deeply the psychology especially anxiety in patients with diabetes mellitus.

Keywords: diabetes mellitus, blood glucose levels, anxiety

NS-18

Factors Related to the Risk Level of Ischemic Stroke in Dr. Drs. M. Hatta Brain Hospital, Bukittinggi

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ABSTRACT

Background: Stroke is a neurological syndrome that is the biggest threat to cause disability in people's lives. A stroke occurs suddenly and rapidly, so patients should get help as soon as possible in health care to avoid further disability and even death. Some of the most important risk factors include diabetes mellitus, hypertension, cholesterol, and heart disease. The research objective was to determine the relationship between hypertension, diabetes mellitus, cholesterol, and heart disease and its risk of ischemic stroke

Methods: This research used an analytic survey research design is a retrospective study. Data was collected by checklist sheet and stroke risk scorecard. The research was conducted in Hospital Dr. Drs. M Hatta Bukittinggi. with respondents 82 subjects taken by systematic random sampling

Results: The results using statistical test Chi-Square (χ^2) found there is a relationship of diabetes mellitus ($p = 0.869$), hypertension ($p = 0.016$), cholesterol ($p = 0.296$), and heart disease ($p = 0.296$) with the level of risk of ischemic stroke on the patient.

Conclusion: Based on the results of the study concluded that a history of hypertension is one of the medical risk factors in the incidence of an ischemic stroke To reduce the level of stroke risk in ischemic stroke patients, it is hoped that the knowledge of patients and families in detecting signs of preventing stroke risk factors is targeted for behavioral changes and improving healthy lifestyles to prevent recurrent strokes.

Keywords: risk level, diabetes mellitus, hypertension, cholesterol, heart disease

NS-19

Foot Plantar Massage Induces the Quality of Life of Congestive Heart Failure Patients

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ABSTRACT

Background: Congestive Heart Failure (CHF) patients treated in the HCU room are very vulnerable to various stressors that cause patients to experience problems and sleep disorders. Poor sleep quality in some heart diseases patients can cause the heart rate to increase which massage is believed to maintain these problems. Massage on the feet starting from the soles of the feet to the toes will reduce blood pressure, reduce pain, stress and improve comfort and quality of sleep. The purpose of this study was to determine the effect of foot massage on sleep quality in CHF patients treated in the HCU room Hospital Dr. Adnaan WD Payakumbuh in 2019.

Methods: This research method uses easy quasi-experiments with the design of a one-group approach pre and post design, then the data is processed using a paired test. We recruited 10 respondents on the research intervention which was carried out for 10 minutes massage with a frequency of once every 2 days.

Results: The statistical test results obtained a p-value of 0,000, meaning that there is an influence between the provision of foot massage on the quality of sleep in CHF patients in the HCU room.

Conclusions: Suggestions in this study research results can be used as input for health officials or agencies related to the problem of this study, further, it can increase and improve the quality of health services, especially in heart patients to improve sleep quality.

Keywords: congestive heart failure, foot massage, high care unit, sleep quality

NS-20

Daily Carbohydrates Calories of Last-Trimester Pregnant Women to Gestational Diabetes Mellitus Incidence Based on HbA1c Screening: a Correlation Study

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ABSTRACT

Background: Gestational diabetes mellitus (GDM) is one of the most prevalent medical complications occurring during pregnancy with an increased risk of pregnancy morbidity, impaired glucose tolerance, and type-2 diabetes even years following pregnancy. Children born of women with GDM are more likely to be obese, experience genes disruption, and suffer from diabetes in their early adulthood. HbA1c analysis will measure maternal glycohemoglobin specifically and accurately of risking prediabetes and GDM.

Methods: This study identified the association of carbohydrate intake calorie and body mass index in third-trimester pregnant women to the incidence of GDM. This cross-sectional study was categorized as an experimental approach and the sample recruited technique was a purposive approach, with as many as 34 women. We measured the HbA1c percentage using Biohermes HbA1c identifier and calculated the calorie consumption through Nutri-survey 2007 program.

Results: The results show that the daily calorie intake of carbohydrates had a significant association with the incidence of GDM ($p < 0.005$), especially in prediabetes status. It can be determined given the higher amount of daily intake of carbohydrates, the increasing trend appeared in the HbA1c percentage.

Conclusion: Finally, two-thirds of the sample had a risk of developing GDM based on daily carbohydrate intake without realizing it.

Keywords: gestational diabetes mellitus; carbohydrate intake; HbA1c

NS-21

Anxiety and Family Participation in Care in Intensive Care Units: A Correlation Study

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ABSTRACT

Background: Family participation in critical care can be social and emotional support that may affect patients' healing. The involvement of family members in nurses' caring for critically ill patients has a high value to increase patients' comfort during their treatments. Nevertheless, the anxiety of family members can occur as an emotional response due to their relatives are in a critical condition. The purpose of this study was to determine the relationship between anxiety and family participation in care in intensive care units (ICUs).

Methods: This cross-sectional descriptive correlational study collected data from a convenience sampling of 80 family members from ICUs of two public hospitals in West Sumatra, Indonesia. Participants were interviewed with the State-Trait Anxiety Inventory (STAI) and filled the Family Involvement Questionnaires – Long Term Care (FIQ-LTC) to assess the participation of family members in care in ICUs.

Results: The result of the study showed that the mean score of anxiety was 47.43 (SD = 15.23), and the mean score of family participation in care was 91.05 (SD = 15.49). A significant positive and moderate correlation was found between anxiety with family participation ($r=.45$, $p < .05$).

Conclusions: The finding of this study revealed that family participation in care in ICU was related to the experience of anxiety among family members. According to a finding of this study, it can recommend that ICU nurses need to give more attention to the prevention of anxiety among family members to enhance their involvement in caring for critically ill patients in ICUs.

Keywords: anxiety, family participation, critically ill patients, ICUs

NS-22

Factors That Affect Nurse Compliance in Carrying Out an Early Warning Score System

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ABSTRACT

Background: Early Warning Score (EWS) is a clinical risk score based on parameters that include vital signs, namely heart rate, blood pressure, respiration, temperature, oxygen saturation, and level of consciousness to detect any worsening of the patient condition. It can help patients get medical treatment as soon as possible. Nurses' compliance as the most health workers in hospitals greatly affects the success of the EWS implementation. The level of compliance and accuracy of nurses in implementing EWS is only 53%. The purpose of this study was to determine the factors that influence nurse compliance in running the EWS system.

Methods: The method in this research is a descriptive analysis by doing cross-sectional, with a sample of 32 respondents with a total sampling technique. The research instrument used a questionnaire and was analyzed using Chi-Square.

Results: The results showed that there was no effect of age (X^2 : 0.722), gender (X^2 : 0.755), years of service (X^2 : 0.178), and education level (X^2 : 0.722) with nurses' compliance in implementing the Early Warning Score system.

Conclusions: It can be concluded that other factors affect nurse compliance in performing EWS like motivation, perception, sources of information, environment, workload, organizational characteristics, and social support. So further research is needed in this regard

Keywords: characteristics, nurse compliance, early warning score

NS-23

Knowledge and Attitude of Diabetic Patients Towards Covid-19 Prevention Behavior

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ABSTRACT

Background: The Covid-19 outbreak is a global problem. Among the risk factors for covid-19 comorbidities is Diabetes Mellitus (DM), the preventive measurements against this type of infectious disease must be carried out as quickly as possible. The phenomenon found in the public stated 3 people out of 5 DM patients do not know that they are very vulnerable to Covid-19. This has resulted in an indifferent attitude towards health protocols, as well as not taking maximum preventive measures, such as rarely wearing masks, rarely washing hands with soap, and still being in a crowd of people. The research objective was to determine the relationship between knowledge and attitudes towards DM patient behavior in efforts to prevent COVID-19.

Methods: Analytical descriptive research method with cross-sectional approach. The research was conducted in the working area of the Tanjung Pati Public Health Center, in February 2021. The sample consisted of 64 people, taken by purposive sampling. The data was collected by filling out a questionnaire, then processed and analyzed using the chi-square test.

Results: Univariate analysis found that 51.6% of respondents have high knowledge, 56.3% negative attitudes, and 56.2% negative behavior in efforts to prevent Covid-19. The bivariate results showed a relationship between knowledge ($p = 0,000$ and $OR = 11,960$) and attitudes ($p = 0,000$ and $OR = 18,333$) on the behavior of DM patients in efforts to prevent Covid-19.

Conclusions and Suggestions: It is concluded that there is a relationship between knowledge and attitudes towards efforts to prevent Covid-19 in DM patients. It is recommended that Public health center officers provide counseling and leaflets about covid-19 and its prevention efforts to all DM patients who visit the Public health center.

Keywords: knowledge, attitude, covid-19 prevention efforts

NS-24

The Relationship Between Knowledge about COVID-19 Screening procedure and patient's anxiety in Emergency Room

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ABSTRACT

Background: Covid-19 was a global pandemic since 2019 that rapidly spread and resulted in death in many areas. Various prevention strategies have been carried out for the spread of the COVID-19 virus, one of which is the implementation of screening methods in health facilities including in hospitals. Nevertheless, many people did not know about the procedure of Covid-19 screening that may cause anxiety in hospitals. The purpose of this study was to determine the relationship between knowledge about covid-19 screening procedure and patient's anxiety in the Emergency room

Methods: A cross-sectional study was conducted on 80 samples through convenience sampling in the emergency room of DR. Drs. M.Hatta Brain Hospital in Bukittinggi city West Sumatra, Indonesia. Data were collected by using a tool that was adapted from WHO resources and a similar study (Kabede Y, 2020). The knowledge questions had 14 items covering issues such as symptoms, risk conditions, prognosis, modes of transmission and safety, and precautions in COVID-19 and Depression Anxiety And Stress Scale (DASS) were used to assess anxiety in the study.

Result: The result of the study showed most of the participants (81.9%) experienced anxiety, and half of them has a low level of knowledge (52.1%) regarding Covid -19 screening procedures. A significant positive and moderate correlation was found between knowledge and anxiety ($r=.34$, $p < .05$).

Conclusions: The finding of this study revealed that knowledge is one factor that affects an experience of anxiety. A low level of knowledge may cause stress easily. Therefore, it can be concluded that knowledge affects individual awareness of stimuli that may increase the personal ability to solve psychological problems, including anxiety. This research is expected to be an input for the DR. Drs. M. Hatta Brain Hospital Bukittinggi to increase patient and family's knowledge, such as providing information to break the chain of COVID-19 and prevent transmission.

Keywords: knowledge, anxiety, screening procedure, emergency room

NS-25

The Relationship of Self-Efficacy with Healthy Behavior in Lifestyle Modification in Recurrent Stroke Patients in Dr. Muhammad Hatta Brain Hospital, Bukittinggi

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ABSTRACT

Background: Stroke is a disease or functional disorder of the brain in the form of nerve paralysis due to obstruction of blood flow to the brain. Repeated stroke has a more severe impact than the first attack because it increases mortality and disability which adds to the economic burden and reduces the quality of life of post-stroke patients. Prevention of recurrent stroke can be done by increasing knowledge and changing behavior to prevent risk factors for recurrent stroke. Changes in individual behavior depend on the environment and cognitive conditions that greatly affect self-efficacy. Self-efficacy is a person's belief in his ability to manage his illness. This study aims to determine the relationship between self-efficacy and healthy living behavior in lifestyle modification in recurrent stroke patients at the Brain Hospital. Dr. Muhammad Hatta Bukittinggi.

Methods: The design of this study is a description of the correlation with a cross-sectional approach. The sample in this study amounted to 61 people. Sampling was done by accidental sampling. Data collection using the instrument used is the Self Efficacy questionnaire. The statistical test used was the chi-square test.

Results: The results showed a significant relationship between self-efficacy and healthy living behavior in lifestyle modification of recurrent stroke patients at Brain Hospital. Dr. Muhammad Hatta Bukittinggi. (p -value = 0.003, ; OR = 3.667; 95% CI = 1.264-10.940).

Conclusion: Nurses can increase patient self-efficacy by building self-confidence, motivating patients to their ability to perform healthy behavior by modifying lifestyle, and controlling hypertension to prevent the risk of recurrent stroke.

Keywords: healthy behavior, self-efficacy, stroke

NS-26

Relationship of Discipline and The Peers Influence with Youth Violence in Teenagers in PSM Junior High School

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ABSTRACT

Background: The National Commission for Child Protection released the number of cases of a brawl between students in 2011 as many as 341 cases and 95 fatalities. According to data from the Principal through Guidance and Counseling Teachers at PSM Junior High School Bukittinggi. The purpose of this study was to determine the relationship between discipline and peer influence with juvenile delinquency in students.

Methods: The number of students is 51 students, where most of the students on average each month 4-8 students meet the Guidance and Counseling program. The method used was descriptive-analytic with a cross-sectional design with a questionnaire measuring instrument. The sample in the study was total sampling (51 respondents).

Results: From the results of the statistical test, the p-value reveals 0.00 ($p < 0.05$) for discipline relation on students violation tendencies, and the significant value for 0.001 ($p < 0.05$) for the people's surroundings influenced.

Conclusion: It was concluded that there was a relationship between discipline and peer influence with juvenile delinquency. It is hoped that the school will further improve student discipline by enforcing clear and firm rules and regulations to reduce juvenile delinquency.

Keywords: discipline, juvenile delinquency, peers.

NS-27

Relationship of Characteristics and Family Knowledge with Family Ability in Early Management of Stroke Pasaman Regency

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ABSTRACT

Background: Stroke prevalence in West Sumatra is 10.6% with the number of stroke sufferers 35,108 people. The number of stroke cases increased from year to year, in 2016 reaching 5,494 cases. The prevalence of hypertension in Pasaman district was 8,540 cases (11.1%), while diabetes mellitus was 1255 (1.27%). This study aims to determine the relationship between family characteristics and knowledge with family abilities in the early handling of stroke in the work area of Bonjol Health Center, Pasaman Regency in 2020.

Methods: Method used was descriptive analysis with a cross-sectional approach with a questionnaire designed by the researcher himself. The sample in the study was 35 people.

Results: The results of statistical test research obtained p -value = 0.089 ($p < 0.05$). There was no association between gender and initial stroke management. The statistical test results obtained p -value = 0.129 ($p < 0.05$), it was concluded that there was no relationship between education level and early stroke management. The results of statistical tests obtained p -value = 0.001 ($p < 0.05$), which meant that there was a relationship between knowledge and early stroke management.

Conclusion: There was no relationship between age characteristics and early stroke management, that there was no relationship between education level and early stroke management and there was a relationship between knowledge and early stroke management. It is hoped that there will be a follow-up program to improve family skills in the early detection of stroke patients and for further researchers, it can examine the socio-cultural relationship with the family's ability to treat early stroke.

Keywords: age, education level, gender, knowledge, stroke

NS-28

Adolescent 'Knowledge about Pruritus Vulvae: A Survey Study

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ABSTRACT

Background: Pruritus vulvae is a disease indicated by itching on the external female genitalia. Pruritus vulvae can be caused by bacteria, fungi, and viruses. As many 63,9% of adolescents have poor knowledge and information. So adolescents must take care of personal hygiene especially reproductive organs. The purpose of this study was to describe the knowledge of students about Pruritus Vulvae in adolescents at Senior high school.

Methods: The research design used a cross-sectional study. The sampling technique used in this study was Proportional Random with 163 samples.

Result: The result showed that 77.9% or 127 adolescents had bad knowledge, 16.6% or 27 adolescents had sufficient knowledge, and 5.5% or 9 adolescents had good knowledge about Pruritus Vulvae.

Conclusions: So it is necessary to carry out health education so that information about menarche is known by all adolescents and reduces the risk that will occur if the bad care of their genitals.

Keywords: adolescence, knowledge, menarche

NS-29

The Effect of Health Education with Peer Education Method on Knowledge and Attitudes of The Teenager in Bukittinggi Students on Prevention of Lesbian, Gay, Bisexual, and Transgender (LGBT) Behavior

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ABSTRACT

Background: The world's LGBT population is estimated at 10% of the world's 7.5 billion people (ConQ, 2015). Adolescents with developmental qualities including critical thoughts, feelings and behaviors, and curiosity can experiment with LGBT behavior. There needs to be an increase in knowledge and attitudes about LGBT among adolescents with health education. One of the health education methods that can be used for adolescents is the peer education method. The purpose of this study was to determine the effect of Peer Education on LGBT on the knowledge and attitudes of high school students. This research literature study aimed to determine the effect of health education using the Peer Education method on the level of knowledge and attitudes of students about preventing LGBT behavior.

Methods: This research was done using a nursing or health research database, namely google scholar to find journals according to the inclusion and exclusion criteria, then a literature review was carried out.

Results: The results of the 5 literature reviews that were reviewed in general said that there was an influence of the peer education method on the knowledge and attitudes of high school students regarding the prevention (LGBT) behavior and reducing deviations in risky sexual behavior in adolescents. Adolescents make peers as role models so that peers provide information so that adolescents are easily influenced, with the peer education method there is active youth involvement through discussions with the help of peers which can make it easier for teenagers to receive and understand information or education given about LGBT.

Conclusion: So it is hoped that the peer education method can be a media of information for health workers to conduct health education for adolescents related to the prevention of LGBT behavior.

Keywords: LGBT, knowledge, attitudes, peer education

NS-30

The Assosiation of Nutritional Status and Fine Motor Development in Preschool Children

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ABSTRACT

Background: The nutritional status of children in the world with a lethal prevalence is about 13.9%, and 93.4 million children suffering from chronic energy deficiency The global average rate of development of fine motor disturbance in children is 68.5%. According to the Integrated Healthcare Center monitoring in 2015, there were 0.5% of underweight children under the red line in Payakumbuh, which decreased with red line weight in 2014 (0.6%). This study aims to determine the correlation between nutritional status and fine motor development in preschool children at TK Mandiri Cerdas Berbudi (MCB).

Methods: This study used a descriptive correlational research method, and the sample was children aged 3-5 years, with a total of 43 children who were selected using purposive sampling. The data obtained were computerized using chi-square. Data analysis was done using univariate and bivariate analysis.

Results: The results of this study showed the fine motor development of children of BSH (Growing Up Expectation) was 69,8%, and 74,4% of the children had good nutritional status (p value 0,000).

Conclusion: There is a correlation between nutritional status and fine motor development at TK MCB Payakumbuh. This study suggest good nutritional status can influence fine motor development in children, allowing them to accomplish fine motor development following their age. This study can be used to monitor nutritional status and fine motor development in children.

Keywords: nutritional status, fine motor development

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NT-01

Relationship of Food Handlers to E.Coli Contamination

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ABSTRACT

Background: Snack food in Elementary School (SD) is a necessity that must be available. Street food is very susceptible to contamination due to the wrong storage process, poor food processing and unhygienic presentation. The incidence of food poisoning or foodborne illness should be of concern to many parties because it is a multi-caused problem. Data obtained from the Muaro Paiti Health Center, that cases of diarrhea every year are more common in elementary school children. The purpose of this study was to determine the relationship between food handlers and E.Coli contamination.

Methods: The research method is descriptive analytic with a cross sectional approach. The population in this study were all street food vendors sold in the primary school working area of the Muaro Paiti Health Center, with a total sampling of 35 traders. Data were collected through guided interviews and observations, then processed computerized using the chi-square statistical test.

Result: The results of univariate analysis showed that 54.3% of respondents had good hygiene, 62.9% of street food sanitation was not good, and 60.0% had e.coli contamination in food. Bivariate results showed that there was no relationship between food vendor hygiene and e.coli contamination ($p = 0.533$), and there was a relationship between food sanitation and e.coli contamination ($p = 0.002$ and OR – 15,000).

Conclusion: It was concluded that there was a relationship between food sanitation and e.coli contamination in snacks. It is recommended for officers to evaluate and monitor e.coli contamination in every food vendor in elementary schools.

Keywords: food handlers, hygiene, sanitation, E.Coli contamination

NT-02

Glicemic Index and Levels Protein From Sago and Pumpkin Flakes as Functional Food

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ABSTRACT

Background: Data from the Ministry of Health 2018 show that the prevalence of diabetes mellitus (DM) in Indonesia reached approximately 8.5%. For those suffering from diabetes, the glycemic index is an important concept that must be considered in selecting food for the glycemic index is used as a measure of the speed of food that increases blood glucose levels after consumption. According to research, sago, pumpkin, soybeans, cinnamon, and morel berry (*Physalis angulata*) have nutrients that affect blood glucose in diabetes patients. Therefore, in this study, these foods were used as ingredients for making sago pumpkin flakes as an alternative snack for people with diabetes.

Methods: This study employed experimental and applied a completely randomized design (CRD), 1 control and 3 treatments on the addition of soybean flour (formula A=0g, B=10g, C=15g, D= 20g) which was added to sago pumpkin flakes. The glycemic index was calculated using the IAUC (*Incremental Area Under the postprandial Blood Glucose Response Curve*) formula. There are 6 respondents who met the criteria with the consecutive sampling method (the sample was by the criteria). Measurements of weight, height, BMI, and blood glucose were taken. Protein content analysis was carried out using the Kjeldahl method.

Results: Based on the calculation results, the glycemic index value of sago pumpkin flakes A (45.47), flakes B (41.42), flakes C (30.71), and flakes D (26.76) was obtained. Each flakes has an average protein content of different, where flakes A has an average protein content of 8.62%, flakes B has an average protein content of 11.71%, flakes C has an average protein content of 13.20%, and flakes D has an average protein content of 14.87%.

Conclusion: The results of the four formulations of sago pumpkin flakes had a low glycemic index. Flakes with the addition of 20 grams (formula D) of soy flour had the lowest glycemic index (24.76) with a protein content of 14.87%, in which low GI foods are suitable as an alternative functional food for people with diabetes.

Keywords : glycemic index, sago pumpkin flakes, blood glucose

NT-03

The Relationship between Economic Level, Father's Support and Support of Posyandu Cadres with Child Development of 3-5 Years Old in PAUD and Kindergarten Lubuk Buaya Padang

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ABSTRACT

Background: Economic levels, father's support and the support of cadre posyandue play a crucial role in child growth and flower. The percentage of malfeasance in 3-year-olds in PAUD and formatted urban Lubuk buaya were at 34% BB/PB indicator while the development deviations were at 72%. The distortions between growth and development of children are often the result of an unmet need for children parental support and other less supportive local health facilities. The purpose of this research is to find out the relationship between the family economy, father's support and support of cadre posyandu by growing 3-5 year old child flower in 2020, at the crocodile bottom.

Methods: This research used a cross sectional approach with a sample of 50 different fathers that had 3-5 year old children. The data collection was performed self and assisted by the school using interviews with anthropometrics measurements. The independent variables of research were the economic level of father's and cadre's support. Meanwhile dependent variable was the growth with BB/PB indicators and development using SPSS programs and analyzed statistics with chi-square test on p-value 0,05.

Results: This study showed that variables that had an encouraging relationship with growth were the family economy and the father's support for growth in BB/PB indicator with (p-value 0,05). At the same time, the developments were the support of father and the support of posyandu cadre (p-value 0,05).

Conclusion: Regarding the results of this study it is recommended that increased attention and support are shown by (the family, health officials and the community) in preventing father's growth and development disruptions in children.

Keywords: Family economic level, father support, cadre's support, growth, development.

NT-04

The Sensory Profile and Crude Fiber of Guava Flavored Whey Beverage

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ABSTRACT

Background: Whey is a byproduct of cheese processing. This products has a complete nutrition value while has smell, pale yellow color, and is industrial waste. The addition of guava juice provides color and health benefits with its high fiber content into it. This research aims to determine crude fiber, acceptance, and sensory profile of whey beverage.level of preference.

Methods: Guava flavored whey beverage was prepared using the precipitation of mozzarella cheese from Kejulasi farm in Agam Regency. Guava fruit from traditional market added to formulation of beverage. The method used was a completely randomized design with 5 treatments and 2 repetitions. The sensory profiles were determined by a hedonic test with taste, aroma, color, texture, and consistency attributes. The crude fiber was determined following SNI 01-2891-1992-11 procedures.

Results: The content of crude fiber in beverage decreased and the lowest crude fiber content was seen at the addition of 25% thus affecting the pH level of the drink. There was a decrease in the browning reaction to the drink in the red guava juice processing. The level of preference included taste, aroma, color, texture, and consistency hence the most preferred taste level was at the 25% treatment and the Kruskall Wallis analysis showed no significant difference to texture and consistency. The hedonic test results revealed that the level of the panelist's preference of the concentration of adding guava juice concentration was at 25% in the taste and color test. So thust the higher the addition of guava juice, more preferable the taste to panelists will be

Conclusion: The results suggest that addition of guava to whey beverage increase acceptability and similar crude fiber between cheese whey and guava flavored whey beverage.

Keywords: beverage, fiber, guava, hedonic, whey.

NT-05

Organoleptic Quality of Water Melon Skin (*Citrullus Lanatus*) Mixed Jam with Soursop (*Annona Muricata*)

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ABSTRACT

Background: Watermelon rind is widely produced in West Sumatra and has the potential to be used as a food ingredient because it has a variety of benefits, which is fat-free and has levels of minerals and vitamins A, B and C. Soursop fruit contains high vitamin C, the combination of the two ingredients will increase the usefulness of the food ingredients made, namely jam. This study aims to increase the nutritional and organoleptic value of a mixture of watermelon rind jam and soursop juice. This research is useful to produce jam that is easy to consume and has high nutritional value.

Methods: This study is an experimental study using a completely randomized design (CRD) consisting of five treatments and two replications. Where is the treatment (100:0, 100:25, 100:50, 100:75, 100:100). Analysis was used using analysis of variance to see differences in treatment between treatment groups. Observations were made subjectively on taste (hedonic test) with 25 panelists.

Results: The results showed that the average preference level of panelists for color, taste, aroma and texture was at the level of liking to the level of disliking, with the best results being in treatment D with a combination of adding watermelon rind jam with soursop juice added in comparison 100: 75.

Conclusion: This research can be used to maintain the immune system and prevent free radicals and launch the body's metabolism by consuming foods such as jam.

Keywords: Watermelon rind, soursop juice, jam and organoleptic quality

NT-06

The Effectiveness of The Supplementary Feeding Program in The Form of Biscuits on The Nutritional Status of Pregnant Women at the Parit Health Center, West Pasaman Regency

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ABSTRACT

Background: Pregnant women are prone to nutritional problems, including Chronic Energy Deficiency. These nutritional problems can cause death in pregnant women and have an impact on the growth and development of the fetus. One way to overcome the problem of KEK in pregnant women is by giving supplementary feeding recovery. However, the facts have not been able to provide the results of increasing intake and nutritional status as expected. The purpose of this study was to determine the effectiveness of the Supplementary Food Program in the form of biscuits on the nutritional status of pregnant women in KEK at Parit Health Center, West Pasaman Regency.

Methods: This research design used quassy experimental with one group before and after design. which was held on September 14 to December 21, 2020. The population of this study were all KEK pregnant women in the Work Area of Puskesmas Parit, West Pasaman Regency. The sampling technique was simple random sampling with a total of 30 respondents. The data were processed computerized with univariate and bivariate analysis using the "Paired Samples T-test" with a confidence level of 95%.

Results: The results showed that the average LILA of pregnant women before getting PMT in the form of biscuits was 22,337 cm with a standard deviation of 0,7699. The average LILA of pregnant women after getting PMT in the form of biscuits was 22,800 cm with a standard deviation of 0,8200.

Conclusions: It can be concluded that there is an effect of the provision of additional food (PMT) in the form of biscuits on the nutritional status of pregnant women at the Parit Health Center in West Pasaman Regency in 2020. It is recommended that the puskesmas improve monitoring of compliance with pregnant women in consuming PMT and evaluate PMT activities routinely, especially variations of PMT and phase. Also improve education on the need for adequate nutrient intake during pregnancy and it is recommended to further researchers to see the effectiveness of PMT intake as well as from the variable intake of dietary nutrients.

Keywords: Effectiveness, Biscuit PMT, Nutritional Status of Pregnant Women in KEK

NT-07

Insulin Resistance in Type 2 Diabetes Mellitus are Improved Form Whiteleg Shrimp Shell Powder (*Litopenaeus vannamei*)

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ABSTRACT

Background: Astaxanthin belonging carotenoid has a role to enhance diabetic condition. This research aims to examine and compare the effect of WSSP and AST supplement on Total Antioxidant Capacity (TAC) and Homeostatic Model Assessment-Insulin Resistance (HOMA-IR) level in T2DM rats induced by high fat diet- streptozotocin (HFD-STZ).

Method: WSSP 0.89gr/200gr/d (X1) and 1.77gr/200gr/d (X2) groups; and AST supplement 0.09mg/200gr/d (X3) groups were compared with both of positive (K1) and negative (K2) groups. The treatments were administered orally for 21 days to 25 Wistar rats which each group consisted of 5 rats. HOMA-IR and TAC levels were measured by ELISA and ABTs method respectively.

Results: TAC levels significantly increased in treatment groups than K1 group (p=0.008). The increase in TAC level of X2 group was greater than X1 group (p=0.017). HOMA IR levels were significantly lower in treatment groups than K1 group (p=0.009). X2 group had a greater decrease in HOMA IR levels compared to X1 (p=0.016).

Conclusions: In a conclusion, the results of this study show a beneficial effect of WSSP in increasing TAC and decreasing the HOMA-IR index.

Keywords: astaxanthin, HOMA-IR, total antioxidant capacity, whiteleg shrimp shell powder

NT-08

The Effect of Nutrition Counseling on the Level of Macro and Micro Nutrient Consumption in Type II Diabetes Mellitus Patients at Mohammad Natsir Hospital

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ABSTRACT

Background: Diabetes mellitus type II is a chronic metabolic disease characterized by high blood sugar levels accompanied by metabolic disorders due to insufficient insulin function. Macro and micro nutrients are the main topic of nutritional counseling for people with Type II Diabetes Mellitus.

Methods: The design of this research is analytical with an approach using the pretest-posttest method with a test in the form of a paired t-test. The research was conducted at the Mohammad Natsir Regional General Hospital and was carried out on 12 October 2020 to 10 February 2021 with a total sample of 36 people.

Results: The results showed that the average level of consumption of macro and micro nutrients before nutritional counseling was carried out obtained a mean value (54), median (52, 50), mode (50) range (25), variance (47.33) and standard deviation (6.88). And the average value of the level of consumption of macro and micro nutrients after nutritional counseling was obtained by the mean (80.67), median (80), mode (80) range (40), variance (142.89) and standard deviation (11). , 95). The significance value of the t-test is $0.001 < 0.05$.

Conclusion: it can be concluded that there is an effect of nutritional counseling on the level of consumption of macro and micro nutrients in Type II Diabetes Mellitus Patients at RSUD M. Natsir.

Keywords: Type II diabetes mellitus, nutrition counseling, macro and micro nutrient intake

NT-09

**The Effect of Additional Fruit of Dates (*Phoenix Dactylifera*) on The
Combination of Aloe Vera (*Aloe Vera*) Agar on Organoleptic Quality and
Antioxidant Activity****Maria Nova*, Sepni Asmira, Hendra Mukhlis, Monic Gayatri**

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ABSTRACT

Background: Antioxidants are compounds that can prevent and inhibit oxidation reactions, plants that have been exploited and have benefits as antioxidants include dates (*Phoenix dactylifera*) and aloe vera (*Aloe vera*). The purpose of this study was to determine the organoleptic quality and antioxidant activity of Aloe Vera (*Aloe vera*) Agar with Dates (*Phoenix dactylifera*) added.

Methods: This study is an experimental study using a completely randomized design (CRD) consisting of 3 different treatments. This research was started in June 2018. And the observations made were subjective on taste (organoleptic test) with 25 panelists, namely Undergraduate Nutrition students. Antioxidant activity analysis was carried out at the Laboratory of the Faculty of Agricultural Engineering, Andalas University. The results of the organoleptic test showed that the most preferred treatment by the panelists was in treatment A (100g dates: 100g aloe vera) with the indicator

Results: research based on preferences for color, aroma, taste, and texture. The highest antioxidant activity results were in treatment A (100g dates: 100g aloe vera) with an average value (64.00 %). All gelatin with 3 treatments met the criteria for nutritional adequacy rates to be used as snacks for antioxidant fulfillment.

Conclusion: Antioxidant activity in the treatment of the best formulation with sample code A, adding dates to aloe vera agar as much as 100g, which is 64.00%, It is recommended to further researchers observe the shelf life of agar.

Keywords: aloe vera, agar, dates, DPPH, free radicals

NT-10

The Effect of Giving *Virgin Coconut Oil (VCO)* Pudding Toward the Reducing of Total Cholesterol of Hypercholesterolemia Patient at Prof. Dr. M.A Hanafiah SM Hospital in Batusangkar

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ABSTRACT

Background: Hypercholesterolemia is one of the risk factor of heart disease. Invivo study (toward the mice) that has been done by the Indian researcher in 2004 showed that coconut oil especially VCO can decrease the amount of total cholesterol. The purpose of this researcher was to know the effect of giving *Virgin Coconut Oil* Pudding in reducing of total cholesterol of hypercholesterolemia patient.

Methods: This research was *Quasi Experiment* with design *pretest-post test with control group*. This research was done by measuring the amount of total cholesterol that has been taken before giving *virgin coconut oil* pudding and after giving the *virgin coconut oil* pudding. The population of this research was all of adult patient that suffer of hypercholesterolemia in hospital ward at Prof.DR.M.A Hanafiah SM Hospital in Batusangkar. The sample was taken by using *accidental sampling technique*. The number of sample was 20 people that were divided into 2 groups 10 people as the experiment group and the 10 people as the control group. Statistical analysis used T- test.

Results: The result of the research showed that there was the changing of total cholesterol in both experimental group and control group. The average of total cholesterol in experimental group was 249.7 mg/dl at the beginning to 221.6 mg/dl at the end of the research. And it also happened in control group, from 244.7 mg/dl to 235.9 mg/dl. The difference of total cholesterol at the beginning and at the end of the experimental group and control group was taken the meaningful interaction was $P < 0.05$, and also the difference of total cholesterol changing in experimental group and control group was taken the meaningful interaction was $P < 0.05$.

Conclusion: Based on the result of the research, it is suggested for the next researcher to do the research by determining the age, sex and the amount of cholesterol at the beginning of the research so that it can be seen the effect of *virgin coconut oil* pudding in detail.

Keywords: VCO, total cholesterol, hypercholesterolemia

NT-11

The Effect of Addition of Ginger (*Zingiber officinale*) on Lauric Acid Levels and Antioxidant Activity in Virgin Coconut Oil (VCO) as an Immune System Improvement in the New Normal Period**Firman Wiratama, Wilda Laila*, Rahmita Yanti**Department of Nutrition , Faculty of Health Sciences, Universitas Perintis Indonesia
Corresponding email: wildaraziq@gmail.com**ABSTRACT**

Background: The Ministry of Health reported that in 2020 there were 70,736 confirmed COVID-19 cases with 3,417 deaths. The immune system is the body's ability to fight disease. Virgin coconut oil (VCO) is a vegetable oil that can boost the immune system due to its lauric acid content. In the human body, lauric acid is converted into monolaurin which has antiviral and antibacterial properties. The material that can be added to VCO is ginger oleoresin. Several studies have shown that consuming herbal plants such as ginger extract can boost the immune system. This study aims to determine the effect of adding ginger (*Zingiber Officinale*) on lauric acid levels and antioxidant activity in virgin coconut oil (VCO) as an increase in the immune system.

Methods: This research method is experimental research using a completely randomized design (CRD), namely 1 control 3 treatments and 2 replications. The research was conducted from May to December 2020 at Ekasakti and Baristand Universities. The materials used are VCO and Ginger (*Zingiber Officinale*) to make oleoresin. The data obtained were lauric acid and antioxidants which were tested using the Anova test.

Results: The results showed that the effect of adding ginger to lauric acid levels and antioxidant activity at the 5% level obtained p value <0.05, namely 0.025 and 0.000, meaning that there was a significant difference in lauric acid levels and antioxidant activity after adding ginger oleoresin. So it can be concluded that the addition of ginger oleoresin to VCO can increase the functional value of the VCO.

Conclusion: The conclusion is that there is an effect of adding ginger (*Zingiber Officinale*) on lauric acid levels and antioxidant activity in VCO as an increase in the body's immune system and it is hoped that the public will get information about the benefits of VCO ginger.

Keywords: ginger, lauric acid level, VCO

NT-12

The Relationship Between Nutrient Intake, Breakfast Habits, Nutritional Status and Student's Achievement at Junior High School 26 Batipuh Panjang Sub-District Koto Tangah Sub District

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ABSTRACT

Background : Learning achievement is a benchmark of one's success in the academic world. In 2007 Indonesian students ranked 36 th out of 49 countries in term academic of achievement. This research aims to find out the relationship between nutrient intake, breakfast habits, nutritional status and student's learning achievements at Junior High School No. 26 Batipuh Panjang, Koto Tangah Sub-district

Methods: This research employed cross sectional design. The sample of this research consisted of 63 student who were selected using random sampling in June. The collection of the data regarding nutritional information was done using food recall, breakfast habits using a questionnaire and nutritional status by measuring weight and height. The statistical test used was the chi-square test to examine if there was a significant relationship between the variables, which was marked by the value of $p < 0,05$.

Results: The results showed that students with adequate carbohydrate intake were (66,7%), protein intake (77,8%), fat intake (77,8%), iron intake (52,4%), vitamin C (61,9%). Breakfast habits (52,4%) and nutritional status (75,2%). There was a relationship between substance intake and learning achievement where $p = 0,007$, there is a relationship between nutritional status and learning achievement where $p = 0,029$. This research concludes that substance intake and nutritional status are related to learning achievement, while carbohydrate, protein, fat, vitamin C intake, breakfast habits are not associated with learning achievement.

Conclusion : It is recommended that students pay more attention to the intake of nutrients contained in the food to be consumed. Through means of a balanced diet in order to achieve normal nutritional status and that they do not skip breakfast before leaving for school to increase learning concentration and achieve good learning outcomes

Keywords : nutrient intake, breakfast habits, nutritional status

NT-13

The Effectiveness of Problem Based Learning Oriented Learning Module in Teaching Basic Culinary Nutrition to Nutrition Students

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ABSTRACT

Background: Problem-Based Learning (PBL) oriented module is a module that helps students improve their learning activities by teaching them how to locate authentic problems and gather information to address the issues. This study aims to develop an effective Problem Based Learning (PBL) oriented learning module.

Methods: It employs the research and development (R&D) method using a Four-D (4D) development model. The 4D development stages include Define, Design, Develop and Disseminate. The data were obtained from the effectiveness test, which was seen in student learning activities and student learning outcomes. All collected data were analyzed descriptively.

Result: The results showed that the students in the experimental group outperformed the students in the control group, with the results of student activities in the control and experimental groups were 53.95% and 78.93%, respectively.

Conclusions: as a result, it can be concluded that the PBL-oriented basic culinary nutrition module is effective.

Keywords: modules; Problem-Based Learning; effectiveness

NT-14

Organoleptics Quality and Nutritional Content Formula Tempe Substituted by Breadfruit (*Artocarpus altilis*)

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ABSTRACT

Background: Tempeh formula flour is a food product that has a smooth texture made from tempeh. Breadfruit plants produce fruit that has sufficient carbohydrates to be used as a staple food substitute for rice. The aim of the study was to determine the quality of the tempeh formula substituted with breadfruit and nutritional content

Methods: The research is an experiment consisting of two treatments and two replications. Data analysis used analysis of varians and 5% significance level analysis to see differences in treatment between treatment groups. If the results are significantly different ($F_{count} > F_{table}$) then proceed with the Duncan test New Multiple Rank Test at 5% level. This research was conducted in July-August 2020 and the observations made were the organoleptic quality of 25 panelists.

Results: Based on organoleptic test results obtained that the best treatment was C with the substitution of breadfruit (*Artocarpus altilis*) was (40g). The nutritional formula content of tempeh was obtained as follows: protein 17.0%, fat 19.24%, carbohydrates 26.07%, water content 25.08%, ash content 3.43%, and potassium 0.2341%..

Conclusion: It is recommended to tempeh formula as an alternative to MP ASI at the age of 9 months. Further testing is also needed so that the shelf life of the breadfruit substitution tempeh formula

Keywords: tempeh formula, breadfruit, organoleptic quality, nutritional content.

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MD-01

The Relationship between Long Use of Contraceptive Injection (Depo-Provera) and Return of Menstruation After Using It

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ABSTRACT

Background: Couples of childbearing age in Indonesia 51.21% use contraceptive injection. Based on the report from the Padang City Health Office in 2019, the most used contraceptives were injections (56.6%), the most was Depo-Provera. After 2 years of using the injection, about 70% of women do not experience menstruation. The slow return of menstruation, also makes fertility slow. This study aims to determine the relationship between long use of contraceptive injection (depo-provera) and return of menstruation after using it at Andalas's Public Health Center.

Methods: This research is an analytic survey study with a cross sectional design, the population is all injection acceptors totaling 693 people, a sample of 87 respondents and the sampling technique is accidental sampling. Data collection was done by interview technique using a data collection format. The data were analyzed using the statistical test Chi-Square.

Results: This research showed that 62 respondents (71.3%) used Depo Provera injectable contraceptives for more than 2 years and 46 respondents (52.9%) returned to their period after using injectable contraceptives for more than 6 months. After the Chi-Square statistical test was carried out, the value of $\chi^2 = 0.007$ ($p < 0.05$) so that there was a significant relationship between long use of contraceptive injection (depo-provera) and return of menstruation after using it.

Conclusion: The longer use of contraceptive injection (depo-provera), return of menstruation will be long. For this reason, it is expected that the manager of the family planning program will further improve counseling regarding the side effects of using contraceptives that will be used by prospective acceptors, so that there are no worries from the prospective family planning acceptors.

Keywords: contraceptive injection, depo-provera, return of menstruation.

MD-02

Antenatal Care, Income, Hygiene and Environmental Sanitation with the incidence of wasting in toddlers aged 0-59 months

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ABSTRACT

Background: The global target of the world health assembly (WHA) in 2025 will be achieved if countries have a target to reduce the prevalence of wasting cases by projecting population growth.

Methods: The general objective of this study is to obtain a description, analysis, interpretation and factors that most influence the incidence of wasting in infants (0-59 months). This research is an analytical survey research with case control design with an approach mixed / combination (Mixed Methods). Quantitative samples were 216 Taking. Data analysis was chi-square test.

Result: Statistical test results show that there is a significant relationship between wasting events with ANC visits (p value = 0.022, OR = 2,880), income (p value = 0,000, OR = 5,651), hygiene and sanitation (p value = 0.001, OR = 5.228) in Kota Pariaman and there is a significant relationship between wasting events and ANC visits (p value = 0.029, OR = 2.399), income (p value = 0.017, OR = 2.636), hygiene and sanitation (p value = 0.000, OR = 9.503) in the city of Solok causes a lack of information about the importance of nutrition, especially wasting obtained by mothers of children under five.

Conclusion: The results of the study concluded that the need to increase promotive and preventive programs about the importance of clean and healthy living in handling wasting events and the addition of health workers, especially nutrition workers so that nutrition programs can be maximally implemented and the need

to provide health education about hygiene and sanitation to the community because hygiene is important for health toddler growth and development.

Keywords: wasting, malnutrition, thin nutrition.

MD-03

**Profile of Stunting Incidence in Some Working Areas of the Stunting Locus
Community Health Center in West Pasaman Regency****Vedjia Medhyna*, Sestria Betriani**

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Corresponding Email : vedjiamedhyna@gmail.com**ABSTRACT**

Background: The prevalence of stunting globally is 22.9% , in Indonesia is 30.8% and West Pasaman included in the area with a stunting locus with a prevalence of 29.4%. The purpose of research are to describe the incidence of stunting in some working areas of stunting locus community health center in west pasaman regency.

Methods: The design of a research is descriptive. The sample of this research is children under 5 years with stunting as many as 200 responden. The sampling techniques is purposive sampling, and data collection by interview, observation and refer to documentation in the MCH handbook. Analysis techniques is univariate analysis.

Results: The result found that 77.5% mother poor nutrition during pregnancy, 86% infants did not get dietary diversity, 75% infants with infection histories, 70% environment health unfullfil requirement.

Conclusion: The most of stunting infants with low nutrition history when she got pregnant so that it causes growth problem since fetus until get birth. Beside the infection which causes by unhealthy environment and lack of nutrition are able to growth problem for infant. So, it needs full attention from mother when she got pregnant, the appropriate nutrition and also health environment in order stunting incident is able to avoid.

Keywords: stunting, pregnancy nutrition, dietary diversity, infection, environmental Health

MD-04

Administration of Zink Tablets in Pregnant Women Zink Trimester III Deficiency Against Weight and Length of Birth Baby

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ABSTRACT

Background In pregnant women, zinc concentration, is relatively decreased by up to 35% due to the influence of hormonal changes and nutrient transport from mother to baby; the research aims to identify the effect of giving zinc tablets in pregnant women zink deficiency trimester III to Weight And Body Length of Birth Babies.

Method: True experimental research with pretest-posttest design. The sample of pregnant women in the III trimester amounted to 62 people using purposive sampling techniques. The intervention group of 36 people were given 20mg/day doses of zinc tablets, and the control group of 26 people were only assigned counselling for two weeks. Analyze statistical data using the Mann-Withney Test.

Results: the number of samples given zinc tablets as many as 36 pregnant women trimester III found five pregnant women had zinc deficiency and 31 pregnant women who did not experience zinc deficiency with average birth weight in pregnant women who experienced zinc deficiency of 15.70 and 18.95 in pregnant women who did not experience zinc deficiency with a value of p-value < 0.05, while in pregnant women who have zinc deficiency with an average body length of birth of 10.00 and mothers who do not experience deficiencies of 19.87 with a p-value of <0.05. so it can be concluded that the administration of zinc tablets in pregnant women trimester III affects birth weight (BBL) and birth length (PBL).

Conclusion: zinc tablets in pregnant women trimester III effect on body weight and body length of birth.

Keywords: zink tablets, zinc levels, zinc deficiency, pregnant women trimester III

MD-05

Total of *Lactobacillus Bifidus* in Breastfed Infants from Nursing Mothers Intervened with Zinc Tablets in the Area of Makassar City Health Centers

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ABSTRACT

Background: In pregnancy and nursing, zinc plays an important role, including fetal development and milk secretion. Zinc in the lactation process is a crucial modulator of the mammary gland, which is very important for successful lactation. The purpose of this study was to analyze the total of *Lactobacillus bifidus* using Quantitative RT-PCR in the feces of breastfed infants from mothers who were given zinc tablets.

Methods: This type of research was experimental using a quasi-experimental post-test only with a control design and a quantitative approach. The sampling technique used purposive sampling, about 12 samples per group. To avoid dropout and increase power, the sample was then added with an estimated drop out of about 30%, $12 + (30\% \times 12) = 15.6$, rounded up to 16. Each group consisted of 16 samples for breastfed infants from mothers who obtained zinc tablets (intervention) and 16 samples for breastfed infants from mothers who did not obtain zinc tablets (control).

Results: This study showed that the group of breastfed infants from mothers obtaining zinc tablets had a higher mean value of 2947625215.62 compared to the control group of 162374516.97. There was a difference in the number of *Lactobacillus* in the intervention group after being treated with a statistically significant difference in the mean of -2785250698.65 by the Independent sample test analysis, the value of $p = 0.009$ ($\alpha = 0.05$), which means there was a significant difference between the intervention groups and control group.

Conclusion: The highest number of *Lactobacillus* was the intervention group which indicated a difference of *Lactobacillus* in the feces of breastfed infants from mothers who obtained zinc tablets.

Keywords: lactobacillus bifidus, infant, zinc tablets.

MD-06

Associated Upper Arm Circumference With Serum 25(OH)D Level in Third Trimester Pregnant Women of Minangkabau Ethnicity

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ABSTRACT

Background: Upper arm circumference provides important information for assessing the nutritional status of the mother during pregnancy. Skinfold thickness reflects subcutaneous fat deposits in adipose tissue. Adipose tissue also affects serum 25(OH)D levels because adipose tissue stores vitamin D which is a fat-soluble vitamin and an increase in adiposity results in lower serum 25(OH)D levels.

Methods: A cross-sectional study was conducted on 88 third trimester pregnant women in Padang. The study was conducted by performing anthropometric examinations including upper arm circumference and skinfold thickness and examination of serum 25(OH)D levels using the ELISA method.

Results: Nearly half of the subjects (n=40; 45.5%) were categorized into vitamin D deficiency (<20 ng/ml). Serum 25(OH)D level was 23.0±21.0 ng/ml (mean±SD), upper arm circumference was 27.57cm. Pearson correlation test showed no statistically significant association between upper arm circumference and serum 25(OH)D level in third trimester pregnant women (r=-0.064; p=0.552).

Conclusion: There is no relationship between upper arm circumference and serum 25(OH)D levels in Minangkabau ethnic third trimester pregnant women.

Keywords: pregnant women, 25(OH)D, upper arm circumference

MD-07

Incidence of Men Who Have Sex With Men is Related to Social Stratification

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ABSTRACT

Background: HIV/AIDS continues to be a major public health problem. So far it has killed as many as 34.7 million people in the world. It is estimated that 37.6 million people are living with HIV in 2020. MSM (men having sex with men) is counted for almost 17% of new HIV infections in the world. The prevalence of HIV/AIDS among MSM in West Sumatra is 35.9% and Bukittinggi is 18.1%. The purpose of this study was to determine the relationship of social stratification (level of education, occupation and income) with the incidence of MSM.

Methods: This type of research is analytic with a cross-sectional approach. The number of samples as many as 69 people with snowball sampling as a sampling technique. Data were collected using a questionnaire. Data were analyzed using the Spearman Rho test which was processed computerized.

Results: The results showed that there was a relationship between the level of education and the incidence of MSM ($p < 0.05$), occupation was a strong enough factor influencing the incidence of MSM ($p < 0.05$), there was a fairly strong relationship between income and the incidence of MSM ($p < 0, 05$).

Conclusion: The results of this study can be concluded that there is a relationship between the level of education, employment and income with the incidence of MSM in Bukittinggi City. It is hoped that there will be a program from the health office together with the social service office to facilitate providing life skills so that MSM has the skills and avoid selling sex to men.

Keywords: HIV/AIDS, MSM, social stratification.

MD-08

Factors Related to the Implementation of Early Initiation of Breastfeeding (EIB) in Post Partum Mothers

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ABSTRACT

Background: The proportion of Early Breastfeeding Initiation in Indonesia was 58.2% and breastfeeding duration of 1 hour was only 15.9% while the achievement of exclusive breastfeeding was 74.5%. In 2019 at the Silaping Public Health Center, the implementation of EIB has reached the target of 68.9%. The purpose of this study was to determine the factors associated with the implementation of early initiation of breastfeeding (EIB) in postpartum mothers at the Silaping health center in 2020.

Methods: This research is a quantitative study using a cross sectional design. Data were collected using interview techniques. Respondents in this study were post partum mothers in December 2020 - January 2021 at the Silaping Health Center, totaling 32 people. Data analysis used the Chi-Square test. From the research results obtained, generally respondents (59.4%) have high knowledge about EIB, 50% have positive attitudes towards the implementation of EIB, and 56.3% get support from their husbands in implementing EIB and those who did not carry out EIB 31.3%.

Results: The results of this study indicate that there is a relationship between knowledge ($p = 0.002$), attitude ($p = 0.022$) and husband's support ($p = 0.005$) on the implementation of EIB.

Conclusion: The implementation of EIB at the Silaping Health Center has not been fully successful because there are still 10 people (31.3%) postpartum mothers who have not succeeded in implementing EIB, even though they have exceeded the target achievement, for this the researchers suggest to health workers to improve it again. EIB implementation by increasing socialization and counseling to pregnant women.

Keywords: early initiation of breastfeeding, EIB, post partum mothers

MD-09

The Incidence of Breast Cancer on The Level of Education and Use of Hormonal Contraceptive Pills

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ABSTRACT

Background: Breast cancer is the most common cancer suffered by women which tends to increase every year. The incidence of breast cancer ranks first (42.1%) and is followed by cervical cancer (23.4%). The exact cause of breast cancer is not known with certainty, but it is associated with many risk factors. This study aims to determine the relationship between education level and use of hormonal contraceptive pills.

Methods: The research method uses an analytic study with the ratio of the comparison of the case and control group is 1:1 to the 294 respondent with a consecutive sampling technique, according to the inclusion and exclusion criteria. Data was collected through direct interviews with respondents using a questionnaire sheet. Data analyzed by Chi-Square Test.

Results: The results of the analysis of this study found that there was a relationship between the level of education ($p < 0.005$; OR=0.51) and the use of hormonal contraceptive pills ($p < 0.001$; OR=3.93) on the incidence of breast cancer.

Conclusion: The conclusion of this study is that there is a relationship between the level of education and the use of hormonal contraceptive pills on the incidence of breast cancer, so that a person's level of education and exposure to the hormone estrogen for a long time from the use contraceptive pills have a major effect on the incidence of breast cancer.

Keywords: breast cancer, educational level, use of hormonal contraceptive pill

MD-10

The Correlation Between Knowledge, Attitude and Self-Efficacy toward HIV/AIDS Risk Factors Behavior in Teenagers

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ABSTRACT

Background: HIV/AIDS is a global health problem. There are many risk factors for HIV/AIDS transmission but the most important is sexual behavior. The threat of HIV/AIDS for teenagers is real. The number of HIV/AIDS sufferers are 10,376 new cases. It continues to increase with the spread of Lesbian, Gay, Bisexual, and Transgender (LGBT) deviant sexual behavior. Bukittinggi is an area the highest HIV and AIDS cases in West Sumatra. This study aims to determine the correlation between knowledge, attitudes and self-efficacy toward HIV/AIDS risk factors behavior in teenagers.

Methods: The design of this research was descriptive analytic to all students of MAN 1 Model Kota Bukittinggi. By using systematic random sampling, 97 people were chosen as the samples.. The instrument was a questionnaire and it was analyzed by computerization techniques with chi-square test.

Results: The results, it was found that 79.4% of the respondents had low knowledge, 57.7% of them had positive attitude, 88.7% of the respondents had lack of self-efficacy, 47.4% of them were not in the risk factor behavior of HIV/AIDS. Moreover, the statistical test results showed that there was a significant correlation between knowledge ($p= 0.012$ and OR 4.452) and Self Efficacy ($p= 0.018$ and OR 4.629) while there was no significant relationship between attitudes ($p = 0.538$ and OR 0.709) toward HIV/AIDS risk behavior

Conclusion: It can be concluded that knowledge has a major influence on the risk behavior of HIV/AIDS in teenagers. Then, it is suggested for teenagers to select good friends in the association and seek information about HIV/AIDS, its dangers and prevention in order to avoid HIV/AIDS.

Keywords: knowledge, attitude, self-efficacy, risk behavior

MD-11

Perception toward Lesbian, Gay, Bisexual and Transgender in Pakan Labuh District Bukittinggi

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ABSTRACT

Background: Therefore it is important to know people's perceptions of Lesbian, Gay, Bisexual, and Transgender (LGBT) behavior. The purpose of this study was to determine the description of people's perceptions of LGBT behavior.

Methods: This research method is quantitative research with a descriptive survey. The research population was the community of Pakan Labuah Village, Bukittinggi City.

Results: The results of this study, obtained as many of 90 respondents, more than half of them, 54, have good perceptions and consider LGBT to be wrong/deviant behavior. while 36 respondents have bad perceptions that LGBT is a behavior that does not deviate. Based on the results of the study.

Conclusion: There are still people who do not know what LGBT is and consider LGBT to be deviant.

Keywords: perception, LGBT behavior, society

MD-12

Wasting's Determinant in Toddlers (0-59 Months) in Sijunjung Regency

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ABSTRACT

Background: Wasting is a terminology when children's height below normal growth curve that applies to that population. Body Weight (according to Height) can be used to assess past nutritional status, length measurements can be made by yourself, cheap and easy to carry. The general objective of this study is to obtain a description, analysis, interpretation and factors that most influence the incidence of wasting in infants (0-59 months) in Sijunjung Regency.

Methods: The research method in this study is mixed methods with a sequential exploratory design. Quantitative data uses questionnaires, while qualitative research uses in-depth interviews. Quantitative design in this study uses analytic survey research designs with a 1: 1 case control approach, the study population is all children aged 0-59 months.

Results: Statistical Test Results in Sijunjung Regency The variables that most influence the occurrence of wasting are the mother's education variable with a p value value of 0.013, food diversity with a p value value of 0.000, MP-ASI with a p value of 0.010.

Conclusion: It is expected that the Department of Health and Puskesmas will provide information about wasting to the community so that the community can prevent the occurrence of wasting and to mothers of children under five so that they pay close attention to the growth and development of toddlers.

Keywords: wasting, mother's education, food diversity, MP-ASI

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PH-01

The Effect of Kirinyuh (*Chromolaena odorata* L.) Leaves Extract Ointment Against Burn Healing on White Male Rats

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ABSTRACT

Background: Previous research that Kirinyuh leaves extract have been wounds and burn healing activities. The burn and kind of wounds are like excision, incision, infection and diabetic wounds could be influenced physical and psychology patients. This study aims to determine the effect of kirinyuh leaves extract ointment with increasing doses against burn healing on rats.

Methods: Parameters research are percentage of area burn healing, average of epithelization time, and histopathological examination. Twenty rats were divided into 4 groups, namely the control group (vaseline), the 10% concentration, the 15% concentration and the 20% concentration of kirinyuh leaves extract ointment groups. After the rats were burn on dorsal of rats by 70°C cycle hot metal with 2,5 diameters for 20 seconds, the rats were giving groups treatment was carried out for 14 days.

Results: The result of research for control negative, 10% concentration, 15% concentration, and 20% concentration were 83,23%; 86,12%; 88,36% and 90,13% for the average percentage of area burn healing. Average of epithelization time were 12,8 days; 12,2 days; 11,8 days, and 10,8 days.

Conclusion: The histopathology examination got the best result from 20% concentration group. Based on the one-way ANOVA test, it showed the groups had a significant effect on burn healing, the treatment group that had the best effect was the group with 20% kirinyuh leaves extract ointment.

Keywords : burn healing, extract, kirinyuh leaves (*Chromolaena odorata* L.), ointment.

PH-02

Healing Activity of Kirinyuh (*Chromolaena odorata L.*) Leaf Extract On Diabetic Wound Healing in Rat

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ABSTRACT

Background: Kirinyuh leaves have been scientifically proven to have healing activity on several types of wounds such as excision wounds and burns. But until now there are no data regarding its healing effect on diabetic wounds. The purpose of this study was to determine the effect of kirinyuh leaf extract in diabetic wound healing in albino rats.

Methods: Five groups of animals, namely the control (vaselin), the standard (Betadine ointment), 10% extract, 15% extract and 20% extract groups. After the mouse were declared as diabetic following an alloxan inducing process, they were injured in the back area. Wound treatment was carried out for 14 days. Parameters measured include: percentage of healing area on 7th and 14th day, epithelialization time, and tissue histopathology. Data were analyzed by two-way ANOVA .

Results: The results on the 7th day showed that the percentage of wound healing in each group were 30.97%, 47.41%, 34.27%, 40.66%, and 47.13% respectively, while on the 14th day the percentage of healing were 80.96%, 88.77%, 88.36%, 91.33%, and 93.68%. The epithelialization time for each group were 9, 7, 8, 7, and 6.4 days while the histopathological scores of collagen fibers were 1, 3, 1, 3, and 3.

Conclusion: The time and extract concentration had a significant effect on diabetic wound healing, and extracts with concentrations of 15% and 20% have the same effectiveness as the standard drug.

Keywords: kirinyuh, *Chromolaena Odorata L.*, diabetic wound, healing percentage, epithelialization time.

PH-03

Formulation and Conduction Test of Microemulsions of Kalamansi Orange Peel (*Citrus x microcarpa* Bunge) as a Spray Hand Sanitizer Against *Staphylococcus aureus*

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ABSTRACT

Background: Kalamansi orange peel (*Citrus x microcarpa* Bunge) is a plant that has antibacterial activity against *Staphylococcus aureus*, so it can be used as an active ingredient in hand sanitizer spray preparations from essential oil microemulsion. This study aims to formulate the essential oil of kalamansi orange peel in the form of a microemulsion spray hand sanitizer and to test its antibacterial activity against *Staphylococcus aureus* using agar diffusion.

Methods: In this study, 3 hand sanitizer spray formulas were made with variations in the concentration of 20%, 40% and 60% of the Kalamansi orange peel essential oil. Then the physical stability evaluation was carried out with test parameters including organoleptic, drying speed test, pH examination, stability test, homogeneity test and microemulsion particle size determination and data analysis using one-way ANOVA.

Results: The results showed that based on the physical stability test, it was found that organoleptically, drying speed test, pH examination, homogeneity test, stability test for the three formulas were stable for 6 months of storage. Based on the spray hand sanitizer antibacterial test against *Staphylococcus aureus*, it was found that the essential oil concentration of kalamansi orange peel had an effect on the inhibition of the growth of *Staphylococcus aureus* by showing an average inhibitory power of 12.16 mm (strong) at a concentration of 20%, 13.6 mm (strong) at a concentration. 40%, and 15.6 mm (strong) at a concentration of 60%.

Conclusion: Kalamansi orange peel essential oil microemulsion can be formulated in the form of a spray hand sanitizer.

Keywords: *Citrus x microcarpa* Bunge, microemulsion hand sanitizer, *Staphylococcus aureus*

PH-04

Antibacterial Activity of Leaves Extract from *Elephantopus scaber* L. Against *Staphylococcus aureus* and Methicillin Resistant *Staphylococcus aureus***Muthia Miranda Zaunit^{1*}, Fuji Astuti Febria², Amri Bakhtiar²**¹Universitas Perintis Indonesia²Universitas Andalas

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ABSTRACT

Background: The aims of this study to analyze antibacterial activity of leaves extract from *Elephantopus scaber* against *Staphylococcus aureus* and Methicillin Resistant *Staphylococcus aureus* (MRSA) and to analyze it's secondary metabolites.

Methods : The method is experiment with five concentration of extract (20, 40, 60, 80, 100 mg/ml).

Result : The result show that all of concentrations of extract show antibacterial activity to *Staphylococcus aureus* dan MRSA. The strongest activity is in concentration 100 mg/ml with average of inhibitory zone is 14,06 mm to *Staphylococcus aureus* and 11,81 mm to MRSA.

Conclusion: Extract of *Elephantopus scaber*'s leaves contain secondary metabolites: alkaloid, felon, and terpen.

Keywords: elephantopus scaber, secondary metabolites, antibacterial, staphylococcus aureus; MRSA

PH-05

Study of Drug-Related Problems in Pediatric with Bacterial Meningitis

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ABSTRACT

Background: Bacterial meningitis is a disease that ranks in the top ten causes of death due to infection worldwide and bacterial meningitis is one of the most dangerous infections in children. The mortality rate for meningitis is 25-50% and the morbidity rate is 25-45%. A pharmacist should ensure that patients receive appropriate drug therapy, efficient and safe which is closely related to Pharmaceutical care. In addition to implementing pharmaceutical care, pharmacists need to improve service quality and support therapy management through patient-oriented pharmaceutical service processes. Therefore, it is necessary to conduct research on drug-related problems by improving the quality of service and prevent or delay the risk of other complications that may occur in patients.

Methods: The design of this research used a cross-sectional descriptive design. Data was collected retrospectively and prospectively in pediatric patients in RSUP DR. M. Djamil Padang during the period January 2017-May 2019.

Results: The results showed that the DRP incidence rate in the category of drug dose too low 53.52%, drug dose too high 26.76%, potentially inappropriate 1.40%, drug interactions 14.08%.

Conclusion: From the results, the category of drug-related problems was found in pediatric with bacterial meningitis in RSUP DR. M. Djamil Padang is a drug dose too low, drug dose too high, potentially inappropriate and drug interactions.

Keywords: DRP; Meningitis; Bacterial Meningitis; Pediatric; RSUP. Dr. M. Djamil

PH-06

The Effect of Psychological Impact Covid-19 Based on Impact of Event Scale-Revised (IES-R) measurement on Family Planning

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ABSTRACT

Background: The COVID-19 pandemic has profoundly affected the lives of the global population. The pandemic has significantly impacted the mental health and family planning services and reproductive health so that it affects the vulnerability of unwanted pregnancies due to a decrease in the number of family planning services nationally from each type of contraceptive devices & drugs. This study aims to determine the effect of psychological impact based on the Impact of Event Scale Revised (IES-R) on family planning in couples of childbearing age during the COVID-19 period in the area of Dadok Tunggul Hitam Padang Public Health Center.

Methods: This research was carried out in June-December 2020 using a Quasi Experimental, one group design. Respondents in this study were couples of childbearing age (PUS) totaling 156 subjects in Koto Tengah District. The sampling technique used is simple random sampling. Data were collected using an instrument in the form of a questionnaire and using t-test for analyzed this study.

Results: The results of the statistical study showed that there was have a significant effect of psychological impact on using family planning during the COVID-19 pandemic in the Dadok Tunggul Hitam Health Center working area with p value = 0.000 ($p < 0.05$).

Conslution: Through this research, by applying the concept of mental health, especially by considering the psychological aspect, it is hoped that it can contribute and make recommendations for policies/plans for the Population Planning and Family Development program in Indonesia.

Keyword: psychological impact, contraception, impact of event scale-revised (ies-r)

PH-07

Formulation of Handbody Lotion Ethanol Extract of Soursop (*Annona muricata* Linn.) and Antioxidant Activity Test Using the DPPH Method

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ABSTRACT

Background: The leaves soursop (*Annona muricata* L.) leaves contain flavonoids which have strong antioxidant activity with IC_{50} values of 70 $\mu\text{g} / \text{mL}$. The purpose of this study was to formulate the ethanol extract of soursop leaves (*Annona muricata* L.) in the form of Handbody Lotion with 3 formulas, namely F1 (0.05%), F2 (0.1%), F3 (0.15%) and saw antioxidant activity. with the DPPH method.

Methods: The physical properties of the Handbody Lotion with Ethanol Extract of Soursop Leaves were evaluated, including organoleptic examination, pH, homogeneity, washability, type of lotion, physical stability, viscosity, particle size, and skin irritation test. Antioxidant activity testing using the DPPH method was then measured with a UV-Vis spectrophotometer at a maximum absorption wavelength of 516.0 nm. The organoleptic testing did not change during 6 weeks of storage, test results of all preparations did not change during storage for 6 weeks, had an average pH of 7, the preparations were homogeneous, had the type of oil in water, were physically stable, had an average particle size of 13 μm , and did not cause irritation.

Results: The results of testing the antioxidant activity of each formula obtained IC_{50} Handbody Lotion Ethanol Extract of Soursop Leaves, namely, F0 $IC_{50} = 102.58\mu\text{g} / \text{mL}$, F1 $IC_{50} = 96.14 \mu\text{g} / \text{mL}$, F2 $IC_{50} = 90.92 \mu\text{g} / \text{mL}$, F3 $IC_{50} = 89.66 \mu\text{g} / \text{mL}$.

Conclusion: The conclusion in this study is that the Ethanol Extract of Soursop Leaves (*Annona muricata* L.) can be formulated in the form of Handbody Lotion, and the antioxidant activity of the Soursop Leaf Ethanol Extract Handbody Lotion at F0 is moderate, F1, F2, and F3 have relatively strong antioxidant activity.

Keywords: Soursop leaf ethanol extract, Handbody Lotion, antioxidant

PH-08

Formulation of The Preparation of Antichidible Shampoo Fruit Fruit Screen (*Annona squamosa* L.) and Testing Its Activity Against The Mushrooms *Candida albicans*

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ABSTRACT

Background: Srikaya is a traditional plant that has many benefits. The content of alkaloids, aminobutyric acid, arginine, ornitine and stirulin in sugar apple fruit can work as an antifungal. To facilitate the use of srikaya fruit as an antifungal in dandruff, it is formulated in the form of anti-dandruff shampoo.

Methods: The formula of anti-dandruff shampoo of srikaya fruit with three variations of concentration is 12.5% (F1), 25% (F2), 50% (F3). Data were analyzed by one-way ANOVA test.

Results: The results of the evaluation of the third form of anti-dandruff shampoo showed a pH of 7.73 to 7.77; foam power 2.4-2.7 cm; wetting power of 21.4-25.3 seconds, does not irritate and does not separate at room temperature or the freeze-thaw cycle. In the antifungal activity test results shown by the formation of an average diameter of inhibition zones at F1 = 0.00 mm, F2 = 0.00 mm and F3 = 13.25 mm. Only F3 has the inhibitory response of three anti-dandruff shampoo formulations of srikaya fruit. The inhibitory response obtained at F3 is included in the strong category.

Conclusion: there were significant differences in inhibition between srikaya fruit extract, anti-dandruff shampoo formulation and comparison preparations ($P < 0.05$).

Keywords: *Annona squamosa* L, anti-dandruff shampoo, *Candida albicans*

PH-09

Antihypertensive activity test of ethanol extract of star fruit wuluh (*Averrhoa bilimbi* L.) on male white rats induced by prednisone and NaCl

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ABSTRACT

Background: Research was conducted to determine the effect of ethanol extract of Wuluh Starfruit (*Averrhoa bilimbi* L.) in lowering blood pressure of male rats given the combination of inducers Prednisone 0.09 mg/200g BW and NaCl 2.5% orally.

Methods: This study used 25 male rats were divided randomly into 5 groups and each group consisted of 5 rats are group I (negative control given 0.5% Na CMC orally), group II (1 dose given extract ethanol wuluh starfruit 200 mg/kgBW orally), group III (dose 2 given ethanol extract of the wuluh starfruit 400 mg/kgBW orally), group IV (dose 3 given ethanol extract of the wuluh starfruit 800 mg/kgBW orally) and group V (comparison given Captopril[®] 0.225mg/200g BW orally). The treatment was done for 28 days and blood pressure were observed on days 0, 21 and 28 using a NIBP (CODA).

Results: Based on the research results of blood pressure on day 28 after the administration of a preparation orally for 7 days and after the mice expressed hypertension are as follows : Group I 108,99/73,27 mmHg, group II 125,40/87,27 mmHg, group III 115,67/76,47 mmHg, group IV 87,27/58,19 mmHg, and group V 108,33/78,33 mmHg. Based on the statistical test and one-way ANOVA followed by DUNCAN test

Conslusion: concluded that the administration of the dose variation ethanol extract of the wuluh starfruit affect blood pressure significantly (p <0,05) and the most effective dose is the dose of 400 mg/kgBW.

Keywords: wuluh starfruit (*Averrhoa bilimbi* L.), etanol extract, hypertension blood pressure.

PH-10

Formulation of *Hand Sanitizer Gel* from Ethanol Extract of Pineapple Skin (*Ananas comosus* (L.) Merr) and Activity Test Against *Staphylococcus aureus***Miftahur Rahmi*, Mulia, Farida Rahim**

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ABSTRACT

Background: Pineapple skin (*Ananas comosus* (L.) Merr) in Indonesia is generally disposed of as waste whereas in pineapple skin contains flavonoids and saponins which have the potential as agents antibacterial and can be formulated as a *hand sanitizer gel* preparation . The purpose of this research was to determine the antibacterial activity against *Staphylococcus aureus* from pineapple peel extract *aureus* and *hand sanitizer gel* preparations at various concentrations. Phytochemical test results showed that the skin. Positive pineapple contains flavonoids, phenolics, saponins, terpenoids and alkaloids.

Methods: *Hand sanitizer gel* made in three formulas with varying concentrations of pineapple peel extract, namely F1 (5%), F2 (10%) and F3 (15%). Evaluation of the *hand sanitizer gel* preparation carried out, namely organoleptic examination , homogeneity, pH, drying speed test, viscosity, stability and skin irritation test . Activity testing the preparation of *hand sanitizer gel* against *Staphylococcus aureus* was carried out using the well method.

Results: Parameters of antibacterial activity were indicated by the formation of the diameter of the inhibition zone of the extract Pineapple peel ethanol at concentrations of 5%, 10% and 15% had inhibitory power of 15.20 mm, 16.26 mm and 19.37 mm. In the *hand sanitizer gel* preparations F1, F2 and F3 have an inhibitory power of 12.93 mm, 14.13 mm and 18.63 mm. Each extract concentration and formula belongs to the category medium, but F3 has a larger diameter than F1 and F2.

Conclusion: Based on the results of the analysis. One-way ANOVA statistic ($P < 0.05$) showed that the higher the extract concentration, the higher the concentration of the extract added to the *hand sanitizer gel* formula , the antibacterial activity will increase.

Keywords: *Ananas comosus* (L.) Merr, *Gel Hand Sanitizer* , *Staphylococcus aureus*

PH-11

Hepatoprotective Effects of Red Ginger Extrac (*Zingiber officinale* var. *rubrum* Theilade) against White Male Rats

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ABSTRACT

Background: Research on the effect of hepatoprotective red ginger extract (*Zingiber officinale* var. *rubrum* Theilade) On liver organ of white male rats induced by CCL₄.

Methods: This study was conducted for 7 days against 30 white male rats. Group I was a negative control group given only NaCMC, group II was a positive control group given CCL₄, and group III, IV and V were treated with red ginger extract at 100 mg / KgBW, 200 mg / KgBW and 300 mg / KgBW and group VI were the control group given the dosage of 100 mg / KgBW. The experimental animal group was acclimatized for 7 days, then given red ginger extract in accordance with the dose that had been determined for 7 days, on the 7th day of treatment, 4 hours after administration of red ginger extract, all experimental group induced by CCL₄ 1 ml / KgBW (ip) except the negative control group. Subsequently 18 hours later all the experimental animals were sacrificed and the organ collected for histopathological examination.

Results: After histopathologic examination on positive control, hepatocyte cell having cerebellis, pyknosis, karioreksis and cell necrosis with 63.4% damage was detected, while in the treatment group and comparison group showed improvement in male white rat liver cells with percentage of 43%, 35.8%, 17.6% and 19.2% respectively. One-way ANOVA results show that P (<0.05) and duncan results show that each treatment dose variation has different effects as hepatoprotective.

Conslusion: Each treatment dose variation has different effects as hepatoprotective

Keywords : red ginger, ANOVA, duncan (SPSS 16.00), histopathology, CCL₄

PH-12

**Antibacterial Activity of Ethanol and Acetone Extract of Piladang Leaf
(Solenostemon scutellarioides (L.) Codd against Staphylococcus aureus and
Pseudomonas aeruginosa****Tika Afriani^{1*}, Rahmayulis², Indri Sustia Rahmi¹**¹Department of Pharmacy, Universitas Mohammad Natsir²Academy of Pharmacy Imam Bonjol, Bukittinggi, IndonesiaCorresponding Email: tika.afriani91@gmail.com

ABSTRACT

Background: The research on the antibacterial activity of ethanol extract and acetone extract of piladang leaves (*Solenostemon scutellarioides* (L.) Codd) has been carried out against *Staphylococcus aureus* and *Pseudomonas aeruginosa*. This study aims to determine the antibacterial activity, inhibitory concentrations and the comparison of the antibacterial activity of ethanol extract and acetone extract of piladang leaves (*Solenostemon scutellarioides* (L.) Codd) against *Staphylococcus aureus* and *Pseudomonas aeruginosa*.

Methods: Extraction was done by maceration using ethanol 96% and acetone as solvent. Testing for antibacterial activity was performed using diffusion method with disc paper. Test results for flavonoid and phenolic of 96% ethanol extract and piladang leaf acetone extract (*Solenostemon scutellarioides* (L.) Codd) showed positive results. The concentrations used in this study were 125 ppm, 250 ppm, and 500 ppm. Ciprofloxacin as the positive control and aquadest as the negative control.

Results: out Of the 3 concentrations, the antibacterial activity of the 96% ethanol extract of piladang leaves against *Staphylococcus aureus* had the highest inhibition zone at a concentration of 250 ppm and the antibacterial activity of piladang leaf acetone extract against *Pseudomonas aeruginosa* had the highest inhibition zone at a concentration of 250 ppm.

Conclusion: The inhibition zone produced by 96% ethanol extract at a concentration of 250 ppm was 10.3 mm and at a concentration of 500 ppm was 9.67 mm. The inhibition zone produced by acetone extract at a concentration of 250 ppm was 9.55 mm.

Keywords: Antibacteria, piladang leaf, agar diffusion method, *Pseudomonas aeruginosa*, *Staphylococcus aureus*

PH-13

Utilization of Durian Seed Flour (*Durio Zibethinus* Murr) as a Medium of Mushroom Growth

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ABSTRACT

Background: A study about the utilization of durian seed flour (*Durio zibethinus* Murr) as an alternative medium of mushroom growth has been conducted. The purpose of this study is to find out the medium of durian seed flour which can be used as a growing medium for *aspergillus niger* and *Candida albicans*, as well as to know the characteristics of fungal growth in durian seed flour media.

Methods: The experimental method was done by making six different formulations of durian seed flour media and PDA media as a control medium. The first test using *A. niger* was inoculated by a method for the block to be incubated for 72 hours with a temperature of 37° C observed every 24 hours. The second test using *C. albicans* was inoculated by pour method and incubated 48 hours with a temperature of 37° C.

Results: The results showed that the fifth formula (F5) of durian seed flour media with a concentration of 10 grams of durian seed flour with additional micronutrients was the best formula as a growth medium of *Candida albicans* and *Aspergillus niger* fungi. The number of *C. albicans* colonies obtained is 4.5×10^7 CFU/ml, the diameter of the *A. niger* colony grew after 72 hours was 29.8 mm. But *A. niger's* sporulation is best grown in PDA media.

Conclusion: Based on the results of the study it is concluded that durian seed flour media can be used as an alternative medium of the mushroom growth.

Keywords: growth medium, durian seeds, durian seed flour, mushrooms, *Aspergillus niger*, *Candida albicans*

PH-14

Detection of Chalcone Synthase (CHS) Gene on Riau Mancik Gambir (*Uncaria gambir* (Hunter) Roxb.) Varieties**Epi Supri Wardi^{1,4*}, Sumaryati Syukur², Zulkarnain Chaidir², Jamsari Jamsari³,
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ABSTRACT

Background: Catechin content is a parameter in determining the quality of gambir. One of the genes involved in the formation of catechins is *Chalcone synthase* (CHS) gene. This study aims to design a primer that can be used to detect CHS gene in the Riau Mancik Gambir.

Methods: The primer design conducted by aligning 21 various CHS genes in NCBI using *BioEdit* software. The primers obtained further used for Polymerase Chain Reaction (PCR) process to detect CHS gene in Riau Mancik Gambir.

Results: 8 pairs of degenerative primers obtained (4 forward and 2 reverse). The primer code by A1F and C1R produces a product as estimated in designed 724 bp.

Conclusion: A1F and C1R primer could be candidate for CHS gene detection by using PCR in Riau Mancik Gambir .

Keywords: chalcone synthase, DNA, gambir, catechin

PH-15

Handwash Gel Formulation from Cassava Waste Biopolymer (*Manihot esculenta*) with Combination Green Betle Leaf Infusion (*Piper batle L.*)

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ABSTRACT

Background: Handwash gel is one of the items that are currently widely used and as a necessity for the Indonesian people as a preventive effort in breaking the Covid-19 chain because until now the primary treatment used to treat this disease is still being developed and is in the pilot stage. In its development, hand soap comes in the form of a gel soap that uses a polymer base as a base material without using a saponification reaction between bases and animal or vegetable oils. One of the plants that have the potential as a polymer material is cassava (*Manihot esculenta*) on the skin of cassava tubers, and the formulation is combined with green betle leaf infusion (*Piper betle L.*) which has antibacterial power. The purpose of this study was to find the best formula for handwash gel from cassava peel waste starch biopolymer and adjust it to the predetermined SNI.

Methods: The research method used was pure experimental carried out in a pharmaceutical laboratory by making cassava starch, infusion of betel leaf and making handwash gel formula. the FI, FII, FIII formulas were then evaluated, the results of the evaluations carried out meet the standards set by SNI, namely by conducting organoleptic tests.

Results: The results in the form of liquid, brown color, and characteristic odor of betel leaf in each formula, pH with value 7.4, foam height FI: 6.5 cm, FII: 8 cm, FIII: 6.5 cm, viscosity tests with results FI: 617, FII: 464, FIII: 469.

Conclusion: In the presence of hand soap gel from starch cassava peel waste with a combination of green betel leaf can be formulated and has passed the SNI standard.

Keywords: hanwash gel, cassava wax biopolymer, green betle leaf infusion

PH-16

Formulation of Paracetamol Elixir Using Natural Dye Extracts Purple Sweet Skin (Ipomoea batatas L.) as well as Stability Test of Colors

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ABSTRACT

Background: Elixir is a clear and sweet hydroalcohol solution intended for oral use and usually uses additives such as dyes. In this study the formulation used natural dyes derived from purple sweet potato skin extract and was formulated with various concentrations namely formula 1 (0.25%), formula 2 (0.5%) and formula 3 (1%). The aim of the research is to formulate the elixir of paracetamol using natural dyes and see its stability.

Methods: The method used is the test of physical parameters, Freeze and Thaw and UV-Vis spectrophotometry.

Results: The results of the elixir have good organoleptic, pH and viscosity, do not undergo phase separation in extreme temperature storage and do not experience distant maximum wavelength shifts (529 nm, 530 nm, 531 nm) from purple sweet potato peel extract (528 nm).

Conclusion: Paracetamol elixir can be formulated with natural dyes derivated from purple sweet potato peel extract.

Keywords: Natural dyes, purple sweet potato skin, elixir, stability test.

PH-17

Biochemical Identification of Extended Spectrum - Lactamase (Esbl) Bacteria in The Pus of Diabetic Ulcers in The Internersup Room Dr.M.Djamil Hospital Padang

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ABSTRACT

Background: Ulcers are a complication of diabetes mellitus (DM) which begins with superficial infection of the patients skin. High blood glucose levels are a strategic place for bacterial development. This study aims to determine how the result of bacteria producing *Extended Spectrum Beta Lactamase* (ESBL) biochemically in the pus of diabetic ulcer patients in internal RSUP Dr. M. Djamil Padang.

Methods: This type of research is descriptive exploratory with a laboratory design. Samples obtained were 2 swabs from diabetic ulcer patients. The first swab sample contained 3 bacterial colonies (A1, A2, A3), while the second swab sample of bacteria obtained could not be purified. To ensure that these bacteria are ESBL producing bacteria, a sensitivity test was carried out using the antibiotic disk Ceftazidime, Ceftriaxone, Cefotaxime, and Amoxicillin, with a ESBL phenotype test using the antibiotic disk Amoxicillin and Amoxicillin + clavulanic acid. Next, biochemical tests are also performed to determine the species of bacteria that cause diabetic ulcers.

Results: The results obtained from this study were bacteria with the species *E. Coli*, *Proteus mirabilis*, and *Shigella sp.* Bacteria with positive *Extended Spectrum Beta Lactamase* (ESBL) were obtained in the first swab sample with sample code A2, namely the *Proteus mirabilis* bacteria.

Keywords: diabetes Mellitus, extended spectrum beta lactamase, biochemical test, proteus mirabilis

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SS-01

Twitter Media Platform to Scream COVID-19 Spread: Online News Analysis

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ABSTRACT

Background: This article aims to identify the level of communication, dissemination of information and identify the dominant status of online media in Indonesia in disseminating information about COVID-19 circulating to the public, especially to Twitter users. The utilization during the pandemic has increased and become one of the leading media for the fastest exchange and dissemination of information, particularly in emergencies such as the spread of COVID-19.

Method: Qualitative research methods were used in this study to describe in detail the findings obtained from the analysis of national online media. They are the Twitter accounts @CNN Indonesia, @Detikcom, @KompasTV, and @VIVAcoid, and see the intensity of the interaction using #lawancovid and #saatnyaNyalakanTandaBahaya. The analysis was conducted using NVivo 12+ and Gephi software in finding graphs, interactions, and news intensity regarding the spread of COVID-19 that could affect people's mindsets towards COVID-19. In addition, researchers also examined at the level of response and community interaction, in degree, out-degree, betweenness centrality, and closeness centrality in responding to COVID-19 via Twitter media.

Result: The study results stated: (1) The pattern of communication and dissemination of information through Twitter media carried out by the national media became dominant and the prominent tagline in the news summary during JUNE 2021. This was due to the increasing number of COVID-19 cases and low public awareness in anticipating COVID-19. (2) the pattern of community interaction and the response given is also increasing compared to other news taglines. The interaction was reinforced because the spike in COVID-19 cases is getting bigger every week. In addition, the framing carried out by the media increasingly scares the public from doing activities outside the home so that it can raise awareness in suppressing the spread of COVID-19 in Indonesia.

Keyword: twitter analysis, communication, interaction, COVID-19, awareness

SS-02

**The Influence of Corporate Governance Characteristics
And Earnings Management on Financial Performance****Yosi Kurnia**

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ABSTRACT

Background: This study aims to analyze how much influence of Corporate Governance characteristics and earnings management on the financial performance. The problems discussed in this research is : Do the characteristics of corporate governance and earnings management have effect on the financial performance.

Methods: The objectives of this research is provide empirical evidence that the characteristics of corporate governance and earnings management have effects on the company's financial performance. The results of the study are expected to contribute to users of financial statements and stakeholders in understanding corporate governance mechanisms and earnings management practices, so as to increase the value and growth of the company. Data which used in this study is secondary data and sample selection using purposive sampling method. Corporate Governance characteristics indicators which used in this study are institutional ownership, managerial ownership, the proportion of independent board of commissioners, and the size of the board of commissioners. Earnings management is measured by Discretionary Accruals (DA), while financial performance is measured by Return on Asset (ROA) and Return on Equity (ROE). Analysis tool which used is multiple regression analysis.

Results: Results which obtained in this study indicate that institutional ownership has a significant effect on ROE, managerial ownership has significant effect on ROA, the size of the board of commissioners has significant effect on ROA and ROE, and earnings management has significant effect on ROE. While the proportion of independent board of commissioners has no significant effect on ROA and ROE.

Keywords : corporate governance characteristics, earnings management, ROA, ROE.

SS-03

Formulating a Health Sustainable Development Policy: How the Actors Handling the COVID-19 in Indonesia

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ABSTRACT

Backgrounds: This article aims to analyze and identify sustainable development policies in the field of health and the role of actors involved in the creation of COVID-19 control policies conducted by the Indonesian government. This article aims to analyze the role of actors in COVID-19 control in Indonesia and identify sustainable development policies in the health sector. The significant impact of COVID-19 occurs in the health sector, so the critical primary role of the government is to formulate policies in the health sector to control COVID-19. However, the government's policy will not go well without the role of other actors in covid-19 control. The actors referred to in this study include Government, business, Citizen, and Community. To formulate COVID-19 control policies in the health sector, it is necessary to analyze how the actors involved in it are ready.

Methods: Therefore, this study uses a descriptive qualitative method by analyzing the policies made and the role of actors in covid-19 control in the field of health. This research data uses secondary data from national and international journal articles, government websites, and national online media news during the COVID-19 pandemic. The technique of analyzing research data uses Vosviewer and Nvivo 12 plus software so that data visualization can be presented as a basis for formulating health development policies and how the role of actors in controlling COVID-19.

Results: This study indicates, 1) the pattern of health development policies in controlling COVID-19 still needs improvement in effectiveness and efficiency so that policies are right on target. 2) policies made in controlling COVID-19 in Indonesia are still not optimal, especially in integrating technology and other resources. 3) the government is not ready to control COVID-19; the role of other actors is still low in intensity in controlling COVID-19.

Conclusion: Based on the research analysis results, it is important to formulate policies to control COVID-19 and identify its role. Thus, this research can provide a reference in formulating sustainable policies in controlling COVID-19 in the health sector.

Keywords: Health Development, Policy, Sustainability, Governance, COVID-19, Handling.

SS-04

The Impact of Communication Technology on Family Institution : Analysis on Divorce Case in Family in Minang ethnics, West Sumatera

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ABSTRACT

Background: There so many kind the advantages of technology of communication to family institution in Minang ethnics. Minang people easily to looking for a couple how to get a marriage. They can learn many things how to design a good family planning. At the same time, there are so many of divorce cases occurs in family institution in Minang community, West Sumatera. Even though Minang ethnics have a good philosophy in building a family institution. At the same time, government West Sumatera have been revitalized about islamisc values as basic in building family institution by Adat Basandi Sarak, Sarak Basandi Kitabullah (ABS-SBK) by local autonomy. The objective of this research is to analyze what kind of technology commmunication use by Minang people in West Sumatera. Secondly, to analyze correlation technology communication with divorce case in family institution in Minang people in West Sumatera. The lastly, to analyze the strategy how to reduce of divorce case in Minang people in West Sumatera.

Methods: This research uses the modernization theory to analyze the influence of modernization to family institution having divorce case. This research based on qualitative and quantitative method. Qualitative method use explanation on data which come from In-Depth interview. Then, the quantitative method uses in analyzing on secondary data like statistic based data and analyze the questioner by google form on 200 family institution having divorce cases. In-Dept Interview methods was used collect data and information from five (5) family institution. The research conducted in West Sumatera, Indonesia.

Results: Finding of this research that Minang people in West Sumatera use Facebook, Twitter, WhatsApp and instagram on looking a couple to get marriage and deride to divorce by technology of communication. The next finding of research is the local autonomy can not reduce the number of divorce case in Minang community. The lastly, making a good communication and social interaction between member of family can be one of the strategy how to reduce the divorce case in Minang community in West Sumatera.

Conslusion: The conclusion is use the technology of communication like use Facebook, Twitter, WhatsApp and Instagram without controlled effectively can destroy the quality time of family institution ini Minang people, West Sumatera.

Keyword : communication, customs, divorce and family institution, local autonomy and modernization

SS-05

Characteristics of Digital Speech on *Cari Jodoh* in Contemporary Applications

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ABSTRACT

Background: Various popular culture phenomena today become an integral part of the dynamics of society's development. Various applications were created as a product of popular culture. Contemporary apps reflect a vibrant or popular culture. By definition, popular culture is a culture that is loved by many people and can be found easily on social media such as *Facebook*, *Instagram*, or *Tiktok* application. Problems emerging after conducting observations on the *Tiktok* application, for example, was the need for social sensitivity and awareness on the use of language digitally.

Methods: This study applied qualitative methodology as a research procedure that produced descriptive data from *Tiktok* users and their observed behaviors. In the data collection stage, non-participatory observation was implemented. Characteristics of the digital speech can be analyzed from the speech strategy used by the *Tiktok* users in the application. Digital speech used, in general, was commissional speech, which is, in the form of presenting challenges, submitting, and offering with a strategy of marking the identity of the group and growing the intensity toward attention, approval, and sympathy. The phenomenon that supports the rise of popular culture in contemporary applications, made its users free to express themselves. *Tiktok* users spoke to each other to attract attention, particularly from the opposite sex. From the type of speech act and speech strategy used, the characteristics of digital speech used in such contemporary applications can be detected.

Results: The findings of this research suggested that the characteristics of digital speech could cause a shift in the social values as created by the popular culture.

Keywords: Application; Characteristics; Contemporary; Digital; Speech

SS-06

Corporate Social Responsibility and Branding with Organizational Effectiveness

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ABSTRACT

Background: The management of CSR that takes place is not only in the form of charity or compassion in the community's context and is greater but has played a significant role in building an impact not only on related companies but also on national and even global impacts. Excellent and effective CSR empowers everyone and creates the ideal company model. This study examines the interaction of consumer-level characteristics (eg, gender, age, income, and education) and brand level (eg, brand category and brand position in the market) in predicting the perceived effect of CSR on firms resulting from the marketing of construction services. This study is different. Identify each of the different effects of the specific dimensions of CSR (i.e., economics, law, ethics, and philanthropy) on corporate marketing outcomes to see if those dimensions have appropriate effects or on corporate brand outcomes.

Methods: This study based on a sample of Fortune 500 companies that released CSR reports between 2005 and 2011

Result: Studies show that CSR has a significant positive effect on company brand credibility and company reputation. Second, corporate brand credibility plays a mediating role in CSR-company reputation relationships and CSR-company brand equity relationships. Furthermore, the relationship between CSR and company reputation will mediate by Corporate Brand Credibility.

Conclusion: Research proves a close relationship between CSR reporting and stock prices.

Keywords: corporate brand credibility, CSR, reputation, organizational effectiveness.

SS-07

Gender Gap in the New Age of Access to Information and Communication On Digital Culture Studies

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ABSTRACT

Background: This article aims to analyze the Gender Gap in the New Age of Access to Information and Communication in Digital Culture Studies. The industrial revolution 4.0 is also called the digital era, where all access to information and communication is open and spreads quickly. One of the characteristics of this 4.0 era, the presence of the internet that gives rise to digital culture. When everyone is not aware of technology bringing changes in interaction patterns, individuals tend to be more comfortable communicating in the virtual realm than face to face.

Methods: So, this study uses a qualitative method by analyzing the gender gap in the new era of access to information and communication in digital culture studies conducted in the industrial revolution 4.0. This research data uses secondary data obtained from national and international journal articles, government websites and national online news media.

Results: The results of this study indicate, 1) The generation in the 4.0 era is called an instant generation because of its convenience, they do not need to be difficult to find information compared to the previous generation. 2) The internet does make it easier to carry out activities that were previously only conventional, but now have switched to online activities. 3) There are still gaps, because people still have a stigma that thinks there is no difference when it comes to culture in the majority of people, either in the real or virtual world. 4) The gender gap has been the focus until now regarding culture in society, including Indonesia, which still considers that men are more dominant (powerful) than women.

Conclusion: Based on the results of research analysis, it shows that the generation in the 4.0 era is called the instant generation, the internet does make it easier to carry out activities that were previously only conventional, but now have switched to online activities, the gender gap has become the focus until now regarding culture in society including Indonesia which still think that men are more dominant (power) than women

Keywords: gender gap, the new era of access to information and communication, digital culture studies

SS-08

Implementation of K-Means Clustering Algorithm in Measuring Learning Media Evaluations Result by Student (Case Study Introductory Information Technology Course for Bachelor Degree of Digital Business Uperitis)

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ABSTRACT

Background: Learning media has a very important position in achieving learning objectives effectively. Media in the learning process can enhance the learning process of students in learning which in turn is expected to enhance the learning outcomes achieved. Various studies conducted on the use of media in learning came to the conclusion that the process and learning outcomes of each student showed a significant difference between learning without media and learning using media. Therefore, the use of learning media is highly recommended to enhance the quality of learning.

Methods: This study uses computational science and numerical methods with a formulative model approach where the processing of the clustering algorithm uses K-Means Clustering modeling in classifying and mapping the most appropriate dataset so that it can help analyze or measure the level of satisfaction of a learning media.

Result: The results obtained from the evaluation will give instructions to the teacher about which parts of the learning media are good and which parts are not good so that they have not been able to achieve the goals of developing learning media which in this case are expected to be related to the achievement of the learning objectives that have been set. arranged. Based on the results of the evaluation, the necessary improvements can be made, both when the media is being used or after it is used. By using k-means clustering, the results of the evaluation of the case study learning media for the Introduction to Information Technology course are obtained into 2 clusters.

Conclusion: It can be concluded that the clustering of cluster results with K-Means modeling is able to produce more precise cluster accuracy.

Keywords: clustering; K-Means; ; learning media; evaluations

SS-09

The Effect of Job Satisfaction, Work Loyalty and Work Discipline on OCB (Organizational Citizenship Behavior)

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ABSTRACT

Background: OCB (organizational citizenship behavior) behavior in STIKES Perintis Padang employees, it can be seen from employees not always prioritizing the interests of others compared to personal interests, not all employees have high motivation at work, few employees have initiative in work. It means that the OCB level is not optimal, caused by job satisfaction, work loyalty and work discipline. This study aims to determine the effect of job satisfaction, work loyalty and work discipline on OCB at STIKES Perintis Padang. The benefits of this research are as an evaluation material for the effect of job satisfaction, work loyalty and work discipline on OCB and also as material for information and input to improve OCB in STIKES Perintis Padang employees.

Methods: This research method uses independent variables consisting of job satisfaction (X1), work loyalty (X2), work discipline (X3) and the dependent variable, namely OCB (Y). Data was collected by filling out a questionnaire of 97 respondents. Analysis of the data used is multiple linear regression analysis.

Results: The results of this study have a positive and significant effect on job satisfaction on OCB, work loyalty on OCB, and work discipline on OCB. The F test has the effect of job satisfaction, work loyalty and work discipline together and has a positive and significant effect on OCB. The contribution or contribution of the variables of job satisfaction, work loyalty and work discipline together to OCB is 0.660 or 66%.

Conclusion: The results of this study, it can increase job satisfaction, work loyalty and work discipline in STIKES Perintis Padang employees.

Keywords: job satisfaction, work loyalty, work discipline, OCB (organizational citizenship behavior)

SS-10

Macroeconomic Analysis of the Property, Real Estate and Building Construction Stock Price Index with an Error Correction Model Approach

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ABSTRACT

Background: This study aims to verify the impac of interest rate, exchange rate, money supply and inflation on the property and real estate sector composite index.

Method: This study using Error Correction Model (ECM).

Result: The result of cointegration test shows that there is a value of residualthe residual value of the coefficient of 0.08353 explaining that around 8,35% discrepancy between the actual value of the stock price index in the short term and the balance value of the stock price index in the long term will be corrected in a given month or equilibrium relationship between interest rate, exchange rate, money supply and property and real estate sector composite index. In the short term, interest rate and exchange rate to be significant and negative determinant of the property, real estate and building construction sector composite index and money supply not be significant of the property, real estate and building construction composite index. In the long term, interest rate to be significant and negative determinant of the property, real estate and building construction sector composite index. Money supply and exchange rate to be significant and positive determinant of the property, real estate and building construction sector composite index, and inflation not be significant determinant of the property, real estate and building construction sector composite index.

Conclusion: Exchange rate is a variable that has the most to contribution to Property and real estate sector composite index.

Keywords : property and real estate sector composite index, macroeconomics and error correction model.

SS-11

Analysis of the Raskin Assistance Program on Community Income in Indonesia Using the Propensity Score Matching (PSM) Method

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ABSTRACT

Background: The rice subsidy program or Raskin aims to ease the burden of spending on people who are categorized as poor or vulnerable on basic commodities, especially rice. However, Raskin is still a polemic regarding the accuracy and appropriateness of the price as it should be. In this study, we will discuss how the impact of the Raskin program on people's income in Indonesia will be discussed.

Methods: This study uses the Propensity Score Matching (PSM) model using data from the Indonesian Family Life Survey 5 (IFLS 5).

Results: The results show a positive effect but only seen at the 1 percent significance point.

Keywords: Raskin, Income, PSM, IFLS

SS-12

The Relationship of Patient Biding Time and Patient Satisfaction in the Hospital

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ABSTRACT

Background: The bidding time care is an issue that is still prevalent in health care practices. The relevant findings that patients are still complaining that they are not satisfied because of the long time in getting services at interne department in a hospital. This study aims to determine the correlation between the length of service waiting time and the satisfaction of patients at interne department in a hospital.

Methods: This research is quantitative with cross sectional approach. The population in this study 309 respondents with a sample of 62 respondents, using purposive sampling technique. Data were analyzed using the chi square test.

Results: The results show that (56,7%) respondents who perceive the patient's bidding time is not in accordance with the standard. Furthermore 62,9% of respondents were dissatisfied with the services provided. Statistical test results obtained value of 0,000 ($p < 0,005$).

Conclusion: There is a significant correlation between the length of service waiting time and patient satisfaction. It is recommended to the hospital to complete the facilities and infrastructure and improve discipline so that they can provide satisfying services when patients seeking treatment in interne department hoping that the quality of Hospital services will increase.

Keywords: Biding Time, Patient Satisfaction, Service

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ML-01

Validation of Methods for Measurement of Amphetamin and Methamphetamin in Urine Specimens Using Gas Chromatography Mass Spectrometry

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ABSTRACT

Background: Narcotics abuse is still very common in Indonesia, including in West Sumatra which will result in psychological changes in users. Narcotics that are widely circulated in the community are easily obtained such as marijuana, methamphetamine, ecstasy and morphine. A reliable method is needed to be able to detect the presence of narcotics and their metabolites in human specimens. The technique of preparation, extraction, and use of instrumentation has not been optimized so that this research needs to be carried out. The aim of the study was to validate the method by gas chromatography mass spectrophotometry for the measurement of amphetamine and methamphetamine. The benefit of this research is to be able to determine an accurate and fast method in drug testing.

Methods: The research method is by measuring the sample with GCMS (gas chromatography mass spectrometry) and then doing linearity test, detection limit test, accuracy test and precision test. The matrix used is urine specimen, spike is done with standard amphetamine and methamphetamine.

Results: From the validation results of the amphetamine and methamphetamine measurement methods, the MDL (*methods detection limit*) was 3.10 g/L, LoD (*limit of detection*) 2.962 g/L and LoQ (*Limit of Quantification*) 9.873 g/L. On the measurement of methamphetamine MDL 7.072 g/L, LoD 6.757 g/L and LoQ 22.253 g/L. The accuracy of amphetamine and methamphetamine measurement methods is 101.9% and 95.2% and the reproducibility of amphetamine and methamphetamine measurements is 3.83% and 6.743%, respectively. Measuring range and linearity of amphetamine and methamphetamine measurements were 25.0 g/L – 200 g/L with $r = 0.9972$ and 0.9992 .

Conclusion: Based on these data the method of measuring amphetamine and methamphetamine with gas chromatography is sensitive mass spectrometry to measure amphetamine and methamphetamine in urine and meets the required criteria.

Keywords: MDL, LoD, LoQ, linearity, recovery, reproducibility, spike matrix.

ML-02

Correlation between Hba1c and Microalbuminuria in People with Diabetes Mellitus

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ABSTRACT

Background: Diabetes mellitus is one of risk factor of chronic kidney disease. Poor glyceemic control can increase the risk of chronic kidney disease. HbA1c is an examination to know about glyceemic control during 8-13 week. Microalbuminuria is an examination for early detection of kidney injury. The kidney injury that can be detected with microalbuminuria examination. The aim of this study is to find the correlation between HbA1c with mikroalbuminuria on a Diabetes mellitus patient in Prodia Padang Clinical Laboratory.

Methods: The method of this research is descriptive analitic. The results data of examination at HbA1c levels and microalbumin levels in diabetes mellitus patients on the Prodia Padang Laboratory were processed manually in tabular form, then analyzed by statistical correlation test.

Results: In the SPSS (Correlation) test, the sig results were 0.091, which means $0.091 > 0.05$.

Conclusion: It can be concluded that there is no correlation between HbA1c levels and microalbuminuria levels in Diabetes Mellitus patients on the Prodia Padang Clinical Laboratory in 2020.

Keywords: HbA1c, microalbuminuria, diabetes melitus

ML-03

The Correlation of CRP with Urea Level in Chronic Kidney Disease Patients Before Regular Hemodialysis in Dr. Kanujoso Djatiwibowo Hospital, Balikpapan

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ABSTRACT

Background: Chronic Kidney Disease (CKD) is a pathophysiology process with a variety of aetiologies, resulting in progressive and irreversible decline in kidney function. In 2015, there were 20,906 kidney failure patients in Indonesia. Hemodialysis is an alternative dialysis solution that is used when the kidneys are no longer able to remove metabolic substances from the body. During the hemodialysis process, CRP levels and complement will increase due to exposure to contamination with dialysate. This study aims to analyze whether there is a relationship between CRP levels with urea patients with chronic kidney disease before regular hemodialysis in dr. Kanujoso Djatiwibowo Hospital, Balikpapan.

Methods: This study uses cross sectional observation. The number of samples obtained was 30 samples by quota sampling. Data collection uses primary data, namely data directly taken from the object of research by researchers.

Results: Based on the analysis of non-parametric Rank Spearman Correlation data, the results of $p = 0.528$ which means $p > 0.05$ with the correlation coefficient $r = 0.120$ which shows no correlation, H_0 is accepted and H_1 is rejected.

Conclusion: There was no correlation between CRP and urea levels in patients with chronic kidney disease, but 60% of patients with elevated CRP levels may indicate infection or complications that occurred in patients before regular hemodialysis.

Keywords: chronic kidney disease (CKD), hemodialysis, C-Reactive protein level, urea level

ML-04

Ability of Aloe Vera Extract (*Aloe Vera L.*) in Inhibiting the Growth of *Candida Albicans*

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ABSTRACT

Background: Aloe vera (*Aloe vera L.*) is a plant that can treat disease problems caused by fungi. One of causes of fungus is *Candida albicans*. This study aims to determine the ability of aloe vera extract (*Aloe vera L.*) in inhibiting the growth of *Candida albicans* and determine the effective concentration in inhibiting the growth of the fungus *Candida albicans*.

Methods: This research was conducted at the STIKes Perintis Padang Laboratory which took place from February until June 2020. This research uses Completely Randomized Design (CRD) consists of 4 treatment and 3 repetitions. Of treatment consisting of aloe vera extract concentration 40%, 60%, 80%, and 100%. The observed parameter is the formed inhibition zone. Data were analyzed using analysis of variance (ANOVA).

Results: The results of research in laboratory tests produce the average inhibition zone diameter as follows : on concentration 40%, 60%, 80%, and 100% is 11,8 mm, 17,3 mm, 24 mm, and 31 mm. Aloe vera extract (*Aloe vera L.*) can inhibit the growth of *Candida albicans* at concentrations of 40%, 60%, 80%, 100%, as evidenced by the formation of a clear zone around the test disc.

Conclusion: The concentration of aloe vera extract that was most effective in inhibiting the growth of the fungus *Candida albicans* was a concentration of 80%.

Keywords : Aloe vera L., *Candida albicans*, inhibit zone

ML-05

Analysis of Urine Protein Examination Results in Pregnant Women

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ABSTRACT

Background: Protein is needed in large quantities in pregnancy for the formation of new tissue from the fetus for the body of pregnant women, 110 grams of protein are needed in the last 6 months of pregnancy. The presence of excess protein in the urine during pregnancy can be a health problem. In addition, there is a relationship between high blood pressure and high levels of protein in the urine, especially at the end of pregnancy. This study aims to determine the results of urine protein pregnant women.

Methods: This research is descriptive, namely by explaining the data obtained from the results of examination and observation, then clearly described. The method used in this research is acetic acid heating. The population of all pregnant women diagnosed by clinicians and the samples examined were 30 people.

Results: From the research that has been done obtained results of the protein in pregnant women in Hospital Regions Natsir Solok using acetic acid 6% were 30 mothers pregnant obtained positive results 1 (+) 13 people with a percentage (43.33%). Positive 2 (++) as many as 8 people at a press entase (26 , 66 %). Positive results 3 (+++) as many as 3 people with a percentage of 10%. And the results negatif many as 6 people with a percentage of 20%.

Conclusion: That the discovery of proteinuria in pregnant women as many as 24 people from 30 samples.

Keywords : urine, urine protein, pregnant women

ML-06

The Overview of Total Cholesterols Levels in Elderly Patients in Manggopoh Public Health Center

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ABSTRACT

Background: Cholesterol levels in the elderly can be used as an indicator of the risk of coronary heart disease and stroke. Checking total cholesterol levels in the blood is one of the right ways to determine the high and low risk of coronary heart disease and stroke. The higher the cholesterol level in the blood, the higher a person experiences coronary heart disease and stroke. The purpose of this study was to determine cholesterol levels in the elderly.

Methods: The research design used is a descriptive design. , The variable in this study is a description of total cholesterol levels in the elderly. The data processing technique used editing, coding and tabulating. The sampling technique in this study was purposive sampling. The sample obtained in this study were 30 elderly from the elderly who went to Manggopoh Community Health Center.

Results: The results of the examination of total cholesterol levels in the elderly, 5 respondents (16.6%) had normal cholesterol levels (≤ 200 mg / dl), 5 respondents (16.6%) had cholesterol levels within the threshold (200-240 mg / dl).) and 19 respondents (63.3%) had high cholesterol levels.

Conclusion: From this study, it can be concluded that the majority of respondents as many as 59.38% (19 respondents) had cholesterol levels within the high risk threshold (200-240 mg / dl).

Keywords: cholesterol, elderly, coronary heart disease, stroke

ML-07

Analysis of Blood Glucose Levels in Type 2 Diabetes Mellitus Patients

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ABSTRACT

Background: Diabetes Mellitus is a disease with high levels of glucose in a person's blood. Blood Glucose Levels are very important to note if they are high enough. At normal times Blood Sugar is regulated in such a way by insulin, so that the situation is always within normal limits. In the case of Diabetes Mellitus, the body lacks enough insulin, eventually blood glucose levels increase. The presence of damage due to insulin secretion and insulin action, called hyperglycemia, is the cause of Type 2 DM. The purpose of this study was to determine the description of blood glucose levels in Type 2 Diabetes Mellitus Patients in the Laboratory of Hospital dr. Rasidin Padang in January-July 2020.

Methods: This study was a cross-sectional analytical observation, where the sample for this examination was 30 patients who were taken randomly (Random Sampling). Blood Glucose examination method using the Rapid Test method.

Results: The results of this study found that the highest levels were at levels ≥ 200 -300 mg/dl, namely 18 patients (60%), while at levels 100-199 mg/dl were 7 patients (23%) and the least at levels 301-400 mg/dl ie 5 patients (17%). The highest gender was in women, namely 17 patients (56.67%) while the least gender was in men, namely 13 patients (43.33%) and the results based on age were mostly in the age range 55-65 years, namely 18 patients (60%), while in the age range 44-54 years, namely 9 patients (30%), and the least in the age range 66-76 years, namely 3 patients (10%).

Conclusion: It was found that in the Frequency Distribution table of blood glucose levels in patients with type 2 diabetes mellitus, the highest results were found at levels 200-300 mg/dl as many as 18 patients (60%), with the most gender being female, namely 17 patients (56.67%), and the highest age range being 55–65 years, namely 18 patients (60%).

Keywords: Type 2 DM, Glucose

ML-08

Speaking Skills Learning Talks as Interaction in Professional English Through Guided Conversation to Diploma program in Medical Technology Laboratory

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ABSTRACT

Background: Speaking is one aspect of productive language skills, meaning an ability that someone conveys ideas, thoughts or feelings that are in the speaker's mind. English speaking skill is a person's skill to convey his desires and thoughts to anyone orally using English. Speaking skills will be difficult if they are never trained continuously. It aims to improve students' effective speaking skills as English users, namely speaking skills possessed by someone if he can and is able to master the problems and topics of conversation. For students of medical technology laboratory at Universitas Perintis Indonesia the ability to speak good and effective talk as interaction is a skill that must be learned.

Methods: Talk as interaction speaking skills, especially for an analyst who has the task of providing health services to the community. The guided conversation method is applied to improve good and effective talks as interaction speaking skills. This study was conducted with the aim of explaining the mechanism of applying the guided conversation method in learning speaking skills Talks as interaction in English learning for Medical Technology Laboratory students at Universitas Perintis Indonesia. The study population was all participants. The research subjects are students of the Diploma III study program of medical technology laboratory in the 2019/2020 academic year.

Results: The results showed that the application of the guided conversation method could improve students' speaking skills, as evidenced by the results of qualitative and quantitative data analysis. Quantitatively there is an increase in the average of each test evaluation. The average pre-action result is 70.6 which indicates that the students' speaking ability is in a good category but does not meet the criteria for the ability to speak talk as interaction.

Conclusion: After the application of the guided conversation method in the first cycle, the mean score of the students increased to 72.24 and then to 78.82 in the second cycle, indicating good achievement.

Keywords: speaking skill, talk as interaction, guided conversation method, Professional English

ML-09

Modulation of Dexamethasone Cytotoxicity by Permeabilization of the Cancer Cell Membrane by Digitonin

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ABSTRACT

Background: Saponins are amphiphilic natural glycosides which strongly affecting cells membranes integrity and fluidity. Digitonin is steroid saponins are naturally can cause hemolysis of erythrocyte and cell death in many animal and yeast cells. The present study was aimed at investigating membranes activity of digitonin in increasing cytotoxicity of drugs (dexamethasone and verapamil) in various cancer cell lines.

Methods: Cell viability was measured by methyl thiazolyl tetrazolium (MTT) assay for digitonin and for individual drugs and combinations of nontoxic concentrations of digitonin and each of drugs. Digitonin is toxic to the cells and also can increases membrane permeability to all tested cancer cell lines (HeLa, COS-7, MIA PaCa-2, PANC-1).

Results: Digitonin increased cytotoxicity dexamethasone by 3.75-fold in PANC-1, by 2.39-fold in MIA PaCa-2 and by 1.04-fold in COS-7 but cannot increase cytotoxicity of dexamethasone in HeLa cell lines. Cytotoxicity of verapamil was not increased in combination with digitonin in all tested cancer cell lines. Digitonin represents an interesting drug candidate useful in combination therapy with other cytotoxic drugs in cancer treatment, reducing the amount of applied drug, and leading to overall lower costs. **Conclusion:** However, their efficacy depends on both drug and membrane characteristics.

Keywords: Digitonin, dexamethasone, cancer cells, cytotoxicity, membrane permeability, combination.

ML-10

Analysis of Lead Metal Levels in Active Smokers the Lubuk Buaya Village

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ABSTRACT

Background: Lead or also known as plumbum is a heavy metal that occurs naturally in the earth's crust and is spread to nature in small amounts, in the environment levels increase due to mining, smelting and various industrial uses. Lead metals can enter the human body through absorption in the digestive tract and respiratory tract. Lead metal content can be easily found in people who smoke. Active smokers are someone who smoke directly on a cigarette, smoking can damage the cardiovascular system, increases heart rate, cause high blood pressure, increase the risk of stroke, damaging blood vessels, reduce blood flow to the heart and reduce the amount of oxygen that enters the body's tissues. The purpose of this study was to determine the level of lead metal in the blood of active smokers in Lubuk Buaya village in padang city.

Methods: This study uses an observational descriptive method using 10 bloods samples (whole blood) and randomly selected. Samples of using atomic absorption spectrophotometry (AAS).

Results: Obtained from the 10 samples the level of lead in the blood exceeds the normal level limit in the body, that is >0.0025 mg/L, with an average result of 0.40778 mg/L.

Conclusion: This conclusion of this literature study is that smoking can increase blood lead levels, for that we must reduce smoking or stop it.

Keywords: lead, cigarette, atomic absorption spectrophotometry (AAS).

ML-11

Therapeutic Potential of IL-17 in Severe COVID-19 Patients (a review)

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ABSTRACT

Background: The outbreak of the disease known as COVID-19 acute respiratory syndrome (SARS-CoV-2) is rapidly increasing in infected patients worldwide. The immune response is critical to clearing the coronavirus. After the coronavirus attacks the human body, the innate immune system is activated. In cytokine storm, T-Helper 17, IL-17A are largely responsible for the immunopathology of COVID-19 and Acute Respiratory Distress Syndrome (ARDS). Patients with severe COVID-19, trigger a cytokine storm human body.

Methods: With a comprehensive literature search, we collected articles related to IL-17 from patients infected with SARS-CoV-2.

Results: Therefore, it is necessary to understand the mechanism underlying the cytokine storm. Various attempts have been made to mitigate the effects of the cytokine storm induced in disease.

Conclusion: Although IL-17 may be a very valuable target for the treatment of diseases caused by this viral infection, further research is needed to determine the exact timing and full scope of impacts associated with IL-17-based.

Keywords: COVID-19, cytokine storm, IL-17, therapeutic targets

ML-12

Differences in Non-Specific Immune Response in Patients with Typhoid Fever and Patients with Dengue Hemorrhagic Fever (DHF)

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ABSTRACT

Background: One of the non-specific immune responses is C-Reactive Protein (CRP) as a marker of inflammation and its levels increase in the blood in acute infections. Some of the acute febrile diseases are typhoid fever and dengue hemorrhagic fever (DHF). Indonesia is an endemic area, which every year that infectious disease has been increasing. The purpose of this study was to analyze the difference in serum CRP levels between typhoid fever and DHF.

Methods: The design of this study was cross-sectional in patients with typhoid fever and patients with DHF. Serum CRP levels were determined by the semi-quantitative agglutination method. The statistical analysis used for this research is the Man-Withney test.

Results: There was a significant difference between serum CRP levels in patients with typhoid fever and patients with DHF ($p=0.027$).

Conclusion: Serum CRP levels are higher in patients with typhoid fever than patients with DHF

Keywords: Non-specific immune response, C-Reactive Protein Levels, Typhoid Fever, Dengue Hemorrhagic Fever (DHF)

ML-13

Effect of Viral Infections on Serum C-Reactive Protein Levels

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ABSTRACT

Background: Elevated levels of C-Reactive Protein (CRP) are closely related to viral infections. Until now there has been no study that compares CRP levels in several viral infections, therefore this study aims to analyze the effect of viral infections on CRP levels.

Methods: This study used a cross-sectional design. Serum CRP levels were measured by the semi-quantitative agglutination method and analyzed by the Kruskal Wallis test.

Results: There was a significant effect between various viral infectious on serum CRP levels with $p < 0.0001$.

Conclusion: HIV and Covid-19 viral infections have more effect on serum CRP levels.

Keywords: C-Reactive Protein Level, Viral Infection, Serum

ML-14

Antifungal Activity of Rambutan *Nephelium lappaceum* L. Peel extract on *Candida albicans*

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ABSTRACT

Background: One of the plants that has the potential as a medicinal ingredient is Rambutan (*Nephelium lappaceum* L). Rambutan fruit peel has the potential to be used in the health sector. Rambutan fruit skin contains tannins, saponins, alkaloids, terpenoids and flavonoids. The flavonoids contained in the rambutan fruit peel function to increase anti-inflammatory and immune abilities, neutralize free radicals, are strong antioxidants and can provide antimicrobial activity. Research has been conducted to determine the antifungal activity of the rambutan peel extract against the growth of *Candida albicans*.

Methods: This research is an experimental study using a completely randomized design (CRD). The concentration of rambutan peel extract used was 10%, 20%, 40% and 80% with 6 repetitions. Positive control to be used is ketoconazole with a concentration of 80% (b/v). The antifungal activity was determined by the disc method. The statistical analysis used was the normality test, Oneway Anova and continued with the Duncan test using SPSS 20.0.

Results: The results showed that the rambutan peel extract at a concentration of 80% had maximum anti-fungal activity in inhibiting the growth of *Candida albicans* with an inhibition zone diameter of 3.01 cm. The Oneway Anova test shows a significant difference in the diameter of the drag zone.

Conclusion: Base on the research it can be concluded that the ethanolic extract of rambutan peel has potential as an antifungal base material because it can inhibit the growth of *Candida albicans* by forming its inhibitory area.

Keywords: extract, rambutan peel, anti-fungi

ML-15

GC-MS Analysis of Bioactive Compounds Punica Granatum and Helianthus annuus Seed Oil

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ABSTRACT

Background: Pomegranate and sunflower seed oil contain active compounds that act as drug candidates with high antioxidant levels. The purpose of this study was to identify the active compounds from pomegranate and sunflower seed oil.

Methods: Pomegranate and sunflower seeds are air-dried for five days. After drying, it is mashed and obtained Simplicia powder. Furthermore, the soxhletation method was carried out using n-hexane as solvent. The extraction results were concentrated using a rotary evaporator, and the compounds were identified using the GC-MS method. We also analysis of biological activity by using an in-silico study.

Results: We found 49 active compounds from pomegranate and 24 active compounds from sunflower seeds oil extract which have potential as Antieczematic.

Conclusion: n-hexane oil extract of pomegranate and sunflower have potential bioactive compound as antieczematic activity

Keywords: Pomegranate, Sunflower, Oil, Bio-activity

ML-16

Measurement of Thrombocyte pH on the Storage of 1 Day, 3 Days and 5 Days in PMI Blood Transfusion Unit Padang

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ABSTRACT

Background: Platelets were an important component in the hemostatic response that is closely related to other hemostasis components. In storage of platelets, temperature greatly determines the quality of platelets, and the use of agitators. The storage quality control standard is in accordance with the Regulation of the Minister of Health of the Republic of Indonesia 91 of 2015 concerning blood service standards which states that platelets can be stored at a temperature of 20°C - 24°C with a platelet pH > 6.4. The aim of this study was to determine the pH of platelets in the storage period of 1 day, 3 days and 5 days in the blood transfusion unit of PMI Padang City.

Methods: The method used in this study is the pH meter method using the LAQUA-ph1100 tool.

Result: From the results of the study, it was found that the average platelet pH on the 1st day of storage was 7.51, on the 3rd day the platelet pH was 7.58 and on the 5th day the platelet pH was 7.42. The value of sig 0.1 is obtained for Homogeneous Subsets > p(value) 0.05, which means it is not significant.

Conclusion: The storage period of platelets can affect the decrease in pH due to the high production of lactic acid which can lead to changes in the quality of platelet blood products.

Keywords: platelets, platelet pH, shelf life

ML-17

Relationship Factors Affecting Pulmonary Tuberculosis Incidence in Solok

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ABSTRACT

Background: The increasing number of Pulmonary TB patients in Indonesia is caused by unhealthy behavior. Survey results in Indonesia by the Directorate General of Combating Infectious Diseases and Environmental Health (Ditjen P2MPL), the high number of Pulmonary Tuberculosis incidence is caused by the lack of knowledge level. The purpose of this study is to determine the relationship of factors that affect the incidence of pulmonary tuberculosis in Solok.

Methods: The design of this research is descriptive analytic with cross sectional study approach. The study was conducted at 18 Health Center in Solok . The sample in this study was the suspect tuberculosis. The data collection used was kusioner. Data were analyzed using Chi-Square statistical test.

Conclusion: It is expected that promotive efforts through health education to respondents about Pulmonary Tuberculosis and environmental hygiene and better understanding prevention of Pulmonary Tuberculosis and the community can keep the environment in accordance with healthy home standard.

Keywords: knowledge, attitude, action, environmental facilities, role of community leaders, tuberculosis incidence

ML-18

Analyze Heavy Metals and Morphological Descriptions of Red Blood Cells in Paint Workers

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ABSTRACT

Background: Chromium (Cr) is one of the heavy metals that are needed in small amounts by the body, whereas in high amounts it can cause toxins in the body. High-risk paint workers are contaminated with Cr metal from the spray paint content used. Pigments containing Cr which are most commonly used in paints include Lead chromiate ($PbCrO_4$), and Chromium trioxide (Cr_2O_3). Chromium that enters the body will bind with blood cells and circulate throughout the body causing disruption of metabolic processes in the body, then it will be excreted through urine. The purpose of this study was to determine the levels of chromium metal from urine samples and morphological description of erythrocytes from capillary blood samples in paint workers in the city of Padang as well as knowing the extent of heavy metal exposure to our body. The benefit of research is that it can provide an overview of the effect of chromium levels in the body of paint workers.

Methods: This research is an *experimental* research with *cross sectional* approach with *random sampling* method. The sample used was 24-hour urine to determine the levels of chromium in urine and capillary blood to see the morphology of erythrocytes in smears from 10 paint workers.

Results: The results obtained at the lowest levels of chromium in urine are <0.001 mg / L and the highest 0.005 mg / L, while the erythrocyte morphological examination in peripheral blood smear was found the results of all samples of *normochromic anisocytosis* and *Poikilositosis*. *Stomatocyte cells* and *target cells* are also found in all of these blood preparations.

Conclusion: *Basophilic Stippling* found as many as 3 (three) samples of all existing samples, it can be said that this is one of the special signs of heavy metal poisoning.

Keywords : paint workers, chromium (Cr), peripheral blood.

ML-19

The Effect of Administration of Sodium Cyclamate ($C_6H_{12}NNaO_3S$) Orally to The Number of Polymorphonuclear Cell (PMN) In Wistar Rats (*Rattus Norvegicus*)

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ABSTRACT

Background: Food is anything derived from biological sources of agricultural, plantation, forestry, fishery, animal husbandry, water products and water, including food additives. One example of an artificial sweetener that is still frequently used in Indonesia is cyclamate. Based on the BPOM RI survey report at the time of conducting laboratory sampling and testing of Snack Food for School Children (PJAS), which were taken from 866 Elementary Schools or Madrasah Ibtidaiyah scattered in 30 cities 3 in Indonesia, during 2011 4,808 samples were taken and 1,705 (35.46%) of the samples did not meet the requirements (TMS) of food safety and quality. Aisyah et al explained that administration of cyclamate has an effect, which caused anemia and damage to red blood cells resulting in an abnormal accumulation of white blood cells (leukocytes). This study aims to find out the effect of administration of sodium cyclamate ($C_6H_{12}NNaO_3S$) orally to the number of polymorphonuclear cell (PMN) in wistar rats (*Rattus norvegicus*).

Methods: The type of research used in this study was a laboratory experimental. The sample used was a male white rat (*Rattus norvegicus*) totaled of 25 which were divided into 5 treatment groups.

Results: Based on the results of statistical test, a significant value was obtained ($p < 0.05$), so it can be said that there was an effect of sodium cyclamate to the number of polymorphonuclear cell.

Conclusion: Administration of sodium cyclamate is known to have an oxidative stress effect that will cause cell damage and leukocytosis.

Keywords: sodium cyclamate, polymorphonuclear cell count, hematological characteristic.

ML-20

Analyze Heavy Metals and Morphological Descriptions of Red Blood Cells in Paint Workers

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ABSTRACT

Background: Chromium (Cr) is one of the heavy metals that are needed in small amounts by the body, whereas in high amounts it can cause toxins in the body. High-risk paint workers are contaminated with Cr metal from the spray paint content used. Pigments containing Cr which are most commonly used in paints include Lead chromiate ($PbCrO_4$), and Chromium trioxide (Cr_2O_3). Chromium that enters the body will bind with blood cells and circulate throughout the body causing disruption of metabolic processes in the body, then it will be excreted through urine. The purpose of this study was to determine the levels of chromium metal from urine samples and morphological description of erythrocytes from capillary blood samples in paint workers in the city of Padang.

Methods: This research is an experimental research with cross sectional approach with random sampling method. The sample used was 24-hour urine to determine the levels of chromium in urine and capillary blood to see the morphology of erythrocytes in smears from 10 paint workers.

Results: The results obtained at the lowest levels of chromium in urine are <0.001 mg / L and the highest 0.005 mg / L, while the erythrocyte morphological examination in peripheral blood smear was found the results of all samples of normochromic anisocytosis and Poikilositosis . Stomatocyte cells and target cells are also found in all of these blood preparations.

Conclusion: Basophilic Stippling found as many as 3 (three) samples of all existing samples, it can be said that this is one of the special signs of heavy metal poisoning.

Keywords : paint workers, chromium (Cr), peripheral blood.

ML-21

Utilization of Candlenut (*Aleurites moluccana* (L.) Willd) as a Replacement for Media Sabouraud Dextrose Agar (SDA) for *Candida albicans* Growth

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ABSTRACT

Background: Fungi require nutrients, a source of energy and environmental conditions for their growth. Sabouraud Dextrose Agar is a general medium frequently for fungal growth. The high cost and the difficulty of multiplying SDA media have encouraged researchers to find alternative media from candlenuts that contain carbohydrates and protein which are as a source of nutrition for the growth of *Candida albicans*. This study aim to the possibility of candlenut as an alternative medium for *Candida albicans*.

Methods: the method of the reseach is experiment laboratory. Inoculation of *Candida albicans* was carried out using a single dot.

Results: The result of the study found that the macroscopic colonies ware cream and round in shape. In the observation of morphology, the number and diameter of the colonies there were differences. SDA had a colony count of 215.4 CFU/ml (10^5) whereas in candlenuts colony count of 113,8 CFU/ml (10^5) and colony diameter 1.12 mm. This shows that *Candida albicans* can grow on candlenut (*Aleurites moluccana* (L.) Willd) media.

Conclusion: Candlenut (*Aleurites moluccana* (L.) Willd) can be used as an alternative media to replace SDA media for the growth of *Candida albicans*

Keywords: utilization, (*Aleurites moluccana* (L.) Willd), SDA, *candida albicans*