Abstract Book

The 7th International Symposium of Public Health

"Strengthening the health system by encouraging community independence to improve public health status in Society 5.0 Era".

Swiss-Belinn Tunjungan Surabaya,
2 -3 October 2023

Co Host :

Supported by :

The 7th International
Symposium of Public Health

02 - 03 October 2023
Swiss-Belinn Tunjungan Hotel
Surabaya, Indonesia

**ISoPH 2023
PROGRAM & ABSTRACT BOOK**

Organized by
Doctoral Study Program in Public Health
Faculty of Public Health, Universitas Airlangga

Program and Abstract Book of 7th International Symposium of Public Health (ISoPH) 2023, 02 – 03 October 2023, Swiss-Belinn Tunjungan Hotel, Surabaya, Indonesia

Disclaimer

The committee has been trying to check the typing mistakes and the contents of this program and abstract book. However, if there were still errors and omissions, the committee would fix them in the digital version of this book stored on the ISoPH website.

Doc. Version: 1

The registration of this abstract book is in process. We will update the registration number in the digital version of this book soon after we get it.

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WELCOMING MESSAGE – DEAN OF THE FACULTY OF PUBLIC HEALTH, UNIVERSITAS AIRLANGGA

Prof. Dr. Santi Martini, dr., M.Kes

Welcome to the 7th International Symposium on Public Health (ISoPH), Faculty of Public Health, Universitas Airlangga. It is an honor and a pleasure for me, as we gather in this scientific conference.

The theme of this year's conference, "Strengthening the Health System by Encouraging Community Independence to Improve Public Health Status in Society 5.0 Era,". The COVID-19 pandemic has underscored global vulnerability to health crises. This highlights the need for highly vigilant, anticipatory, responsive and resilient health services in the face of current and future health threats. The establishment of a national health system that fosters collaboration between the government, health services and the wider community is therefore crucial.

The purpose of this symposium is to serve as a scientific meeting place, facilitating the exchange of the latest information and ideas in the field of public health sciences. The symposium aims to encourage discussion and exchange of insights on scientific issues in the field of public health. In addition, the symposium aims to stay in tune with technological advances in the field of public health. Through these efforts, the event is poised to make a significant contribution to the advancement of public health knowledge and practice.

In the spirit of collaboration and knowledge sharing, the conference aims to foster interdisciplinary partnerships and inspire transformative ideas. When we come together, we are not just participants; we are catalysts for change. Our collective efforts have the power to shape the future of science, technology and innovation.

I am confident that this conference will not only broaden our understanding of the latest developments in our respective fields, but also forge lasting relationships and friendships. Let us face the next few days with open minds and a spirit of collaboration, knowing that the knowledge we gain and the relationships we build here will have a lasting impact on the world.

Thank you to keynote speakers Ir. Budi Gunadi Sadikin, CHFC, CLU (Minister of Health of the Republic of Indonesia), Prof. Dr. Muhadjir Effendy, M.AP. (Coordinating Minister for Human Development and Culture), and Dra. Hj. Khofifah Indar Parawansa, M.Si (Governor of East Java), speakers: Dr. Khadizah Haji Abdul Mumin (University of Brunei Darussalam), Prof. Dr. Nyoman Anita Damayanti, drg., MS. (Airlangga University), Dr. Nik Mohd Izham Bin Mohamed Nor and Assoc. Prof. Ts. Dr. Abdul Hafiz Ab Majid (Universiti Sains Malaysia), Assoc. Prof. Dr. Supaporn Chaigarun (Ubon Ratchathani Rajabhut University), Prof. Neil Harris, BBehSc (Hons), PhD. (Griffith University), the organizers, all presenters, participants,

and co-hosts, who were willing to be part of this event. My warmest greetings to all the distinguished researchers, scientists, and delegates who have traveled from different parts of the world to join us offline here as well as those attending online.

Welcome to the 7th International Symposium on Public Health (ISOPH), Faculty of Public Health, Universitas Airlangga. I wish you all a productive, enlightening, and enjoyable conference. Thank you.

WELCOMING MESSAGE – THE HEAD OF THE DOCTORAL PROGRAM IN PUBLIC HEALTH, FACULTY OF PUBLIC HEALTH, UNIVERSITAS AIRLANGGA

Dr. Hari Basuki Notobroto, dr., M.Kes

Welcome to the 7th international symposium of public health (ISoPH). This is an annual event organized by the doctoral study program in public health, Faculty of Public Health, Airlangga University.

The purpose of this activity is as a scientific meeting media to exchange the latest information and ideas related to public health science, discuss and exchange ideas about a scientific problem in the field of public health, and follow the development and technological advances in the field of public health.

The benefits of ISoPH are to expand scientific networks for academics, health human resources, practitioners, and public health observers. This activity also expects the development of research collaboration and joint publication and the increasing number of international scientific publications of lecturers and students. This ISoPH activity is also an input for policy makers in pandemic preparedness and post-pandemic recovery from a public health perspective.

Thank you to all those who have helped the implementation of this event, so that it can be consistently carried out until now until the 7th year. The extraordinary keynote speakers, minister of health, Coordinating Minister for Human Development and Culture, and governor of east java. The speakers who were willing to attend and share knowledge and experience from various countries, Indonesia, Malaysia, Brunei Darussalam, Thailand, and Australia. Hopefully the material presented at the 7th ISoPH can provide knowledge, enlightenment and a good perspective in improving public health.

Thank you for your participation in the 7th ISoPH. Hopefully it can be useful and provide good and inspiring new experiences.

Welcome and enjoy this event.

WELCOMING MESSAGE – THE CHAIRMAN OF THE 7TH ISOPH ORGANIZING COMMITTEE

Mohamad Anis Fahmi, S.KM., MPH

I speak before you with respect and enthusiasm as the Chair of the 7th ISoPH Committee. First of all, let me extend a warm welcome to all the participants, speakers, and honored guests who have agreed to attend this event, either online or present in Surabaya, Indonesia.

This event is not just an ordinary scientific meeting, but a stage where brilliant ideas are gathered, knowledge is expanded, and scientific collaboration and cultural recognition flourish. The theme of this year's ISoPH is "Strengthening the health system by encouraging community independence to improve public health status in Society 5.0 Era", carefully chosen to stir our minds and encourage in-depth discussions on relevant and important topics in the field of public health.

There were 145 abstracts submitted to ISoPH this time from 6 countries: Indonesia, Malaysia, Thailand, Bangladesh, Yemen, and Gambia. This is all due to the help and encouragement of all parties. I would like to thank all the committee members who have worked hard to prepare this event. Your dedication and hard work have created a solid foundation for the success of this event. In addition, I would also like to thank the speakers who have been willing to share their knowledge and experience with all of us. Your presence here adds tremendous value.

Thank you to the Doctor of Public Health Study Program and the Faculty of Public Health, Universitas Airlangga for providing facilities, encouragement, guidance, and advice to make this event possible. We the organizers are also grateful to the Co-Hosts: Universitas Muhammadiyah Pontianak, Sekolah Tinggi Ilmu Kesehatan Kendedes, Poltekkes Kemenkes Surabaya, Institut Teknologi, Sains, dan Kesehatan RS.DR. Soepraoen Kesdam V/BRW, Institut Ilmu Kesehatan Bhakti Wiyata Kediri, Universitas Jember and also thanks to the sponsors: Center for Patient Safety Research Universitas Airlangga and PT Roche.

Hopefully you can follow and enjoy this event.
Thank you

SPEAKERS

Keynote speech
Ir. Budi Gunadi Sadikin, CHFC, CLU.
Minister of Health of the Republic of Indonesia
Indonesia

Prof. Dr. Muhadjir Effendy, M.AP.
Coordinating Minister for Human Development and Culture
Indonesia

Dra. Hj. Khofifah Indar Parawansa, M.Si
Governor of East Java
Indonesia

Lecture Speech
Dr. Khadizah Haji Abdul Mumin
University of Brunei Darussalam (UBD)
Brunei

Prof. Dr. Nyoman Anita Damayanti, drg., MS.
Faculty of Public Health, Airlangga University
Indonesia

Dr. Nik Mohd Izham Bin Mohamed Nor
Universiti Sains Malaysia (USM)
Malaysia

Assoc. Prof. Ts. Dr. Abdul Hafiz Ab Majid
Universiti Sains Malaysia (USM)
Malaysia

Assoc. Prof. Dr. Supaporn Chaigarun
Ubon Ratchathani Rajabhut University
Thailand

Prof. Neil Harris, BBehSc (Hons), PhD.
Griffith University
Australia

Dr. Ernesta Sofija
Griffith University
Australia

COMMITTEE OF ISOPH 2023

Executive Committee

Prof. Dr. Santi Martini, dr., M.Kes
Prof. Dr. Nyoman Anita Damayanti, drg., MS
Dr. Muhammad Atoillah Isfandiari, dr., M.Kes
Prof. Trias Mahmudiono, S.KM, MPH (Nutr.), GCAS. Ph.D.

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Moderator of Conference

Nur Atika, S.KM., MPH
Shinta Arta Mulia, S.KM., M.KKK., M.GPH

Moderator of Oral Presentation

Ira Dwijayanti, S.Gz., M.Sc
Dani Nasirul H, S.KM., M.KKK
Muslikha Nourma Rhomadhoni, S.KM., M.Kes
Abdurahman Wahid, Ns., M. Kep
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Rezha Alivia Hildayanti, S.ST., M.Keb.
Adistha Eka Noveyani, S.KM., MPH

ZOOM

For online attendee please use following zoom link:

Topic	:	7th ISoPH: Strengthening the Health System by Encouraging Community Independence to Improve Public Health Status in Society 5.0 Era
Time	:	October 02, 2023 08:00 AM (GMT+7)
	:	October 03, 2023 08:00 AM (GMT+7)
Meeting ID	:	995 3107 1909
Passcode	:	496240
Link	:	https://zoom.us/j/99531071909?pwd=blNwWWpKd1VDQlRlaG9LbkgzTWYwUT09

ACTIVITY RUNDOWN

Day 1, Monday, 02 October 2023	
Time (GMT + 7)	**Activity**
08:00 – 08:30	Participant Registration
08:30 – 09:30	Opening Ceremony:
	1. Indonesian National Anthem and UNAIR MARS
	2. Traditional Dance
	3. Report by the Chair of the 7th IsoPH
	4. Opening Remarks by the Dean of the Faculty of Public Health, Airlangga University
	5. Issuance of Certificates to Co-Hosts
	6. Photo Session
09:30 – 10:00	Keynote Speech: **Ir. Budi Gunadi Sadikin, CHFC, CLU** (Minister of Health of the Republic of Indonesia) **Prof. Dr. Muhadjir Effendy, M.AP.** (Coordinating Minister for Human Development and Culture) **Dra. Hj. Khofifah Indar Parawansa, M.Si** (Governor of East Java)
10:00 – 10:30	Lecture Speech #1: **Dr. Khadizah Haji Abdul Mumin** (University of Brunei Darussalam)
10:30 – 11:00	Lecture Speech #2: **Prof. Dr. Nyoman Anita Damayanti, drg., MS.** (Airlangga University, Indonesia)
11:00 – 11:30	Lecture Speech #3: **Dr. Nik Mohd Izham Bin Mohamed Nor** (Universiti Sains Malaysia, Malaysia)
11:30 – 12:00	Discussion
12:00 – 13:00	Break for Lunch, Prayer, and Rest
13:00 – 16:00	Oral Presentation
19:00 – 21:00	**Gala dinner and cultural night** (only for offline guests and participants) 1. Opening Remarks by the Dean of Faculty of Public Health, Universitas Airlangga 2. Traditional Dance 3. Performance of the Participants 4. Hospitality 5. Closing

Day 2, Monday, 03 October 2023	
Time (GMT + 7)	**Activity**
08:00 – 08:15	Participant Registration
08:15 – 08:30	Opening by MC
08:30 -.09:00	Lecture Speech #1: **Dr. Abdul Hafiz Ab Majid (offline)** (Universiti Sains Malaysia, Malaysia)
09:00 – 09:30	Lecture Speech #2: **Dr. Supaporn Chaigarun** (Ubon Ratchathani Rajabhut University, Thailand)
09:30 – 10:00	Lecture Speech #3: **Prof. Neil Harris, BBehSc (Hons), PhD.** (Griffith University, Australia)
10:00 – 10:30	Lecture Speech #4: **Dr. Ernesta Sofija** (Griffith University, Australia)
10:30 – 11:00	Discussion
11:00 – 12:30	(Break for Lunch, Prayer, and Rest)
12:30 – 15:30	Oral Presentation
15.30 – 16.00	Closing Ceremony:
	1. Announcements
	2. Closing Remarks by Coordinator of Doctoral Study Program in Public Health

PARALLEL SESSION SCHEDULE

Parallel Session I

Monday, 02 October 2023 (ISoPH day 1)

Time   :   13:00-14:10
Room   :   Offline Room
Moderator   :   Ira Dwijayanti, S.Gz., M.Sc
Co-Moderator :   NA

No.	Abstract ID	Title	Time
1	OC-101	Concept Mapping Care Plan (CMCP) in Enhancing Nursing Students' Academic Achievement in Clinical Practices	13:00-13:10
2	OC-102	Patients' Perceptions of the Success of Conventional Thalassemia Treatment: A Qualitative Investigation	13:10-13:20
3	OE-106	Association Between Pesticide Usage and Contact Dermatitis in Agricultural Workers	13:20-13:30
4	OE-116	Determinants of Waste-Sorting Practice of Rural Households	13:30-13:40
5	OG-101	Effects of Co-Administered Methadone and Methamphetamine on liver histology, Cytochrome P450 (2D6) and neurotransmitter	13:40-13:50
6	OF-104	Food Safety Compliance During Food Delivery: Food Riders Knowledge, Attitude, and Risk Perception	13:50-14:00
7	OF-117	Utilization of Biscuits as Nutrition Carrier to Improve Stunting Condition among children: A Systematic Review	14:00 - 14:10

Monday, 02 October 2023 (ISoPH day 1)

Time   :   13:00-16:20
Room   :   Breakout Room 1
Moderator   :   Dani Nasirul H, S.KM., M.KKK
Co-Moderator :   Rezha Alivia Hildayanti, S.ST., M.Keb.

No.	Abstract ID	Title	Time
1	OA-101	Stroke Risk Factors Based on The Framingham Stroke Risk Score Among Urban vs Rural Elderly Communities	13:00 – 13:10
2	OA-103	Correlation of Stroke Risk Factor with Outcome of Non-Thrombolysis Acute Ischemic Stroke Patients	13:10 – 13:20
3	OA-104	Identification of Risk Factors for High Prevalence of Hypertension in Farmworkers in the Work Area of the Mumbulsari Health Center in Jember	13:20 – 13:30
4	OA-102	The Use of Camellia sinensis to Lower Neuron Specific Enolase Level in Acute Ischemic Stroke	13:30 – 13:40
5	OA-106	Prevention of Oral Cross-Infection by Using Povidone-Iodine Compared with Other Antiseptic Agents for Orally Transmitted Diseases: Review	13:40 – 13:50
6	OA-107	Risk Factors of Coronary In-Stent Restenosis in Bare Metal Stents and Drug Eluting Stents	13:50 – 14:00
7	OA-108	Evaluation of Short-Course for Private doctors in Managing Children Tuberculosis as a part of Public-Private Mix in Surabaya, Indonesia	14:00 – 14:10
8	OA-110	Assessment of Estimated Kidney Function Based on Creatinine in Indonesian Adult Populations: Calling for Validation of Performance	14:10 – 14:20

No.	Abstract ID	Title	Time
9	OA-111	Reported Prevalence of Gestational Diabetes Mellitus in Jambi: The Relationship with Socioeconomic Factors, Age, BMI, Hypertension, and Social Support	14:20 – 14:30
10	OA-112	Analysis of Risk Factors for Type 2 Diabetes Mellitus in Kepulauan Seribu Utara District DKI Jakarta Province	14:30 – 14:40
11	OA-113	The Shift of STEMI Management and Outcomes in Asia and Europe in the Aftermath of the COVID-19 Pandemic: A Meta Analysis	14:40 – 14:50
12	OA-114	The Association of Secondhand Smoke and Hypertension Among Adult Male in Bali, Indonesia	14:50 – 15:00
13	OA-115	Community Participation: The Key to Effective Dengue Prevention and Control of Dengue Vectors	15:00 – 15:10
14	OA-116	Surveillance of Pneumonia Risk Factors in Residential Areas West Lombok Regency, 2023	15:10 – 15:20
15	OA-117	Experience and Perceptions of Self-Disclosure of People Living with HIV (PLHIV): A Qualitative Study	15:20 – 15:30
16	OA-118	Unlocking the Potential: Vitamin D Supplementation in Tuberculosis and Respiratory Infections	15:30 – 15:40
17	OA-119	Betel Quid Chewing Habit and Its Relation to Periodontal Status: A Systematic Review	15:40 – 15:50
18	OD-134	Early Initiation Breastfeeding Practices and Exclusive Breastfeeding: Literature Review from Various Geographical Contexts	15:50 – 16:00
19	OD-135	Does Good Knowledge Influence the Disapproving Attitudes of Adolescent Girls Regarding Early Marriage? A Cross-Sectional Study	16:00 – 16:10
20	OD-136	Implementation of the Early Detection of Children's Growth and Development by Midwives	16:10 – 16:20

Monday, 02 October 2023 (ISoPH day 1)

Time   :   13:00-16:20
Room   :   Breakout Room 2
Moderator   :   Muslikha Nourma Rhomadhoni, S.KM., M.Kes
Co-Moderator :   Ns. Alfunnafi' Fahrul Rizzal, M. Kep., Sp. Kep.J

No.	Abstract ID	Title	Time
1	OB-101	Analysis of the Achievement and Utilization of Capitation Funds through the Performance-Based Capitation (KBK) mechanism in the Primary Healthcare in Malang	13:00 – 13:10
2	OB-102	Decentralization Governance Analysis Based on WHO Building Blocks: Comparing of Indonesia and Germany Health Systems	13:10 – 13:20
3	OB-103	The Relationship of Knowledge, Attitudes and Actions of Cadres in the Discovery of Suspected Cases of Diphteria in the City of Probolinggo	13:20 – 13:30
4	OB-104	Implementation of Communication, Bureaucracy and Disposition of Cost Reduction and Cost Difference in Preventing BPJS Health Fraud in Hospitals	13:30 – 13:40
5	OB-105	Efforts to Improve Performance of Inpatient Unit of Mabarrot Islamic Hospital Gresik Based on Malcolm Baldrige Performance Criteria	13:40 – 13:50
6	OB-106	Midwives' Perceptions of Berselendang Sutra Program Implementation at Primary Health Care, Banyuwangi Regency	13:50 – 14:00
7	OB-107	Brand Awareness of Healthy Services at Primary Health Center: An Innovative Marketing Technique	14:00 – 14:10

8	OB-108	Analysis of Factors Affecting Telemedicine Use Satisfaction	14:10 – 14:20
9	OB-109	Analysis of the Relationship Between Hospital Ownership and Google Maps Star Ratings: A Case Study of Regional General Hospitals (RSUD), Private Hospitals, and Muhammadiyah Hospitals (RSM) in East Java	14:20 – 14:30
10	OH-102	Stunting Meter: A Portable Digital Ultrasonic Device for Child Height Measurement and Stunting Detection	14:30 – 14:40
11	OH-103	Development of the Dashboard Information System for the Public Satisfaction Index about Hospital X in East Java	14:40 – 14:50
12	OH-104	Correlation of Nurses' Self-Leadership with Technology Acceptance (A Study at Indonesian Urban General Hospital)	14:50 – 15:00
13	OH-105	Integrated Early Warning System for High-Risk Pregnant Woman: Development of Management Information System Between PHC and Hospital	15:00 – 15:10
14	OH-106	Mapping Global Research Related to User Acceptance of Technology in Healthcare: A Scientometric Review	15:10 – 15:20
15	OC-103	Application of COMBI (Communication for Behavioral Impact) to Stunting in Pamekasan District	15:20 – 15:30
16	OC-104	Alertness of Bystander in Rapid First-Aids Management When Sudden Cardiac Arrest Strikes	15:30 – 15:40
17	OC-105	The Relationship Between Obesity and Physical Activity in School Children Aged 13-15 Years Old in Junior High School Yogyakarta, Indonesia	15:40 – 15:50
18	OC-106	Determinants of Early Marriage in Aceh Rural Areas	15:50 – 16:00
19	OC-107	Policy, Intervention and Management in Addressing Stunting: A Systematic Review	16:00 – 16:10
20	OC-109	Parental Influence and Physical Education on Adolescents Physical Activity	16:10 – 16:20

Monday, 02 October 2023 (ISoPH Day 1)

Time	:	13:00-16:50
Room	:	Breakout Room 3
Moderator	:	Abdurahman Wahid, Ns., M. Kep
Co-Moderator	:	Reny Nugraheni, S.KM., S.H., MM., M.Kes

No.	Abstract ID	Title	Time
1	OF-101	Facing Infectious Diseases of the Necro-Faryingitis Virus with Antioxidant Nutritional Intake	13:00 – 13:10
2	OF-102	Factors Related to The Collaboration of KPM (Human Development Cadres) on Stunting Prevention Efforts	13:10 – 13:20
3	OF-105	Effects of early childhood growth and development interventions implemented provider on children under 2 years of age: systematic review	13:20 – 13:30
4	OF-106	Predictor of Stunting, Wasting, and Being Underweight in Indonesia: Literature Review	13:30 – 13:40
5	OF-107	Analysis of Total Lactic Acid Bacteria (LAB) and Organoleptic Quality of Goat Milk Kefir with the Addition of Kapok Honey (*Cheiba pentandra L.*)	13:40 – 13:50

6	OF-108	Effect of Kapok Flower Honey (*Ceiba pentandra*) addition on Antioxidant Activity, Total Flavonoid, Total Phenolic, and Lactose Levels in Goat's Milk Kefir	13:50 – 14:00
7	OF-109	Organoleptic Test Characteristics and Acceptability of Grasshopper Nugget Flour as a High Protein Functional Food	14:00 – 14:10
8	OF-110	Energy Adequacy, Physical Activity, and Stress Levels in the Female Athlete Triad of Volleyball Athletes	14:10 – 14:20
9	OF-111	Correlation Between Exclusive Breastfeeding, Frequency, and Portion of Breastfeeding Complementary Foods with Stunting of Toddler in Desa Puru Kec. Suruh Kabupaten Trenggalek	14:20 – 14:30
10	OF-112	The Effectiveness of Moringa Biscuit (*Moringa oleifera*) and Snakehead Fish (*Channa striata*) as Additional Foods in Improving the Nutritional Status of Pregnant Women with Chronic Energy Deficiency	14:30 – 14:40
11	OF-114	Communication, Information and Education (CIE) with Maternal Parenting Behavior and Growth Toddler	14:40 – 14:50
12	OF-115	Mothers' Perspectives on Toddlers' Picky Eater Behavior: A Systematic Review	14:50 – 15:00
13	OF-116	Factors related to feeding practice of maternal to prevent stunting based on social-cognitive theory construct: A systematic review	15:00 – 15:10
14	OF-118	Impact of Micronutrient Supplementation on Hemoglobin, Ferritin, and Retinol Status in Stunting Children Under 5 years in Urban Poor Regions	15:10 – 15:20
15	OC-111	Type 2 Diabetes Mellitus Patients' Experiences in Receiving Family Support: A Narrative Review	15:20 – 15:30
16	OC-112	Determining Factors Affecting Mother's Behavior in Stunting Prevention in the Madura Rural using the Theory of Planned Behavior	15:30 – 15:40
17	OC-113	Program-based Education to Prevent Diabetic Foot Ulcer on Patient with Diabetes: Systematic Review	15:40 – 15:50
18	OC-114	HIV Patient Medical Data Protection Policy: Public Information Disclosure and Data Privacy Viewpoints	15:50 – 16:00
19	OC-115	Scoping Review of Midwives' Workload: A Comprehensive Overview	16:00 – 16:10
20	OC-116	Determinants of Basic Immunization Compliance to Children in The Covid-19 Pandemic Based on The Health Belief Model	16:10 – 16:20
21	OC-117	Research Trends for Family Assistance Teams in Efforts to Reduce Stunting in Health Journals in Indonesia	16:20 - 16:30
22	OC-118	The Influence of Hyperreality Social Media on Adolescent Food and Drink Choices: A Preliminary Study	16:30 – 16:40
23	OC-119	Parental Education's Influence on Care Patterns of Children with ADHD Based on Financial Stability and Demographic Region in Indonesia	16:40 – 16:50

Parallel Session I

Tuesday, 03 October 2023 (ISoPH Day 2)

Time	:	12:30-15:50
Room	:	Breakout Room 1
Moderator	:	Abigael Grace Prasetiani, S.Kep., Ns., M.Kep.
Co-Moderator	:	Adistha Eka Noveyani, S.KM., MPH

No.	Abstract ID	Title	Time
1	OD-101	Impact of Adolescent Pregnancy on Antenatal Care (ANC): An Analysis of Demographic Health Survey (DHS) 2017 in Indonesia and Philippine	12:30-12:40
2	OD-102	A Descriptive Study on the Knowledge and Perception of Parent's Towards Their Children's Dietary Behavior	12:40 – 12:50
3	OD-103	Health Literacy of Covid-19 Among Students and Visit to Health Clinic: A Mixed Method Study in Islamic Boarding School of Indonesia	12:50 – 13:00
4	OD-104	The Influence of Sleep Quality of Pregnant Women on the Incident of Stunting: A Literature Review	13:00 – 13:10
5	OD-105	Study Protocol: A Mixed-Methods Study to Develop and Validate a Questionnaire of Self-management and Its Relationship with Quality of Life among Thalassemia Adolescents	13:10 – 13:20
6	OD-106	The Relationship of Anxiety Level with the Menstruation Cycle in Midwifery S1 Students at Institute of Health Science Kuningan	13:20 – 13:30
7	OD-107	Factors that Influence the Occurrence of Stunting Among Child in Sumenep District	13:30 – 13:40
8	OD-108	Factors Associated with Risk of Injury in Toddlers	13:40 – 13:50
9	OD-109	Is the Body Mass Index a Useful Predictor of Exercise Capacity among Postpartum Women: A Cross-Sectional Study	13:50 – 14:00
10	OD-110	Ventilation in School and Student Health: A Systematic Literature Review	14:00 – 14:10
11	OD-112	The Influence of Hormonal Contraceptive Risk Factors on the Incidence of Preeclampsia	14:10 – 14:20
12	OD-113	The Relation Between Social - Cultural Perspectives and Exclusive Breastfeeding Practice in Palembang City	14:20 – 14:30
13	OD-114	Neonatal Thyroid-Stimulating Hormone Test as Prevention of Congenital Hypothyroidism in Newborn: Review Article	14:30 – 14:40
14	OD-115	Exclusive Breastfeeding in South Sulawesi, Indonesia: What factors are related?	14:40 – 14:50
15	OD-116	Determinant Factors of Antenatal Care for Pregnant Woman in Indonesia	14:50 – 15:00
16	OD-117	Effective Communication Methods in Preventing Adolescent Anemia: A Literature Review	15:00 – 15:10
17	OD-118	Community Involvement in Adolescent Pregnancy Prevention: A Literature Review	15:10 – 15:20
18	OD-119	Toluene Toxicity on Blood Serum CYP2E1 Levels and Malondialdehyde Expression in Coronary Arteries	15:20 – 15:30
19	OD-120	The Role of Religious Leaders in Adolescent Reproductive Health and Family Planning: A systematic review	15:30 – 15:40

| 20 | OF-103 | Exploring The Factor Influencing Complementary Feeding Practices of Mothers with Infant 6-23 Months Old in Sidoarjo Regency, Indonesia : A Qualitative Study | 15:40 – 15:50 |

Tuesday, 03 October 2023 (ISoPH Day 2)

Time   : 12:30-16:10
Room   : Breakout Room 2
Moderator   : Haris Suhamdani, S.Kep., Ns., M.Kep.
Co-Moderator : Forman Novrindo Sidjabat, S.K.M., M.Kes (Epid)

No.	Abstract ID	Title	Time
1	OD-126	The Effect of Using Bellywrap on Changes in Low Back Pain Levels in Pregnant Women in Menganti District, Gresik Regency	12:30-12:40
2	OD-127	A Systematic Literature Review of the Correlation Between Knowledge, Self-Efficacy and Competence with Postpartum Depression in Women During Postpartum Period	12:40 – 12:50
3	OD-128	The Effect of Red Spinach Juice on Increasing Hemoglobin Levels in Third Trimester Pregnant Women with Anemia in the Panarung Public Health Center, Pahandut District, Palangka Raya City in 2020	12:50 – 13:00
4	OD-129	The Meaningfulness of Village Shamans in Dayak Communities for the Adolescent Pregnancy Care: Indonesia	13:00 – 13:10
5	OD-130	Determinant of the Quality of Life of Mothers with Children with Disability: A Systematic Review	13:10 – 13:20
6	OD-131	Exploring the Impact of Family Support and Function on High-Risk Behavior Among Adolescents: A Comprehensive Study	13:20 – 13:30
7	OD-132	The Effect of Giving Zinc Tablets as a Companion Fe Tablets on Hemoglobin Levels in Female Adolescent	13:30 – 13:40
8	OD-133	Maternal and Child Health Using the Digitalization of the MCH Handbook Paciran Primary Health Care	13:40 – 13:50
9	OE-101	Heavy Metals in Fish Knowledge, Attitudes and Practices among Consumers in Selangor, Malaysia	13:50 – 14:00
10	OE-103	Literature Review: Surveillance Analysis of Risk Factors Relapse Mental Disorders	14:00 – 14:10
11	OE-105	Path Analysis of the Relationship between Diarrhea, Climate and Environmental Variables in Province of West Nusa Tenggara	14:10 – 14:20
12	OE-107	Environmental Risk Determinants Associated with Stunting in Children in Tasikmalaya, Indonesia: A Public Health Surveillance-Based Retrospective Study	14:20 – 14:30
13	OE-108	Unsafe Actions Cause Analysis with Human Factors Analysis and Classification Systems (HFACS)	14:30 – 14:40
14	OE-109	Potential of *Cymbopogan nardus* Extract Inhibut the Growth of Candida albicans, *Staphilococcus aureus*, and *Escherichia coli*: A In Vitro Study	14:40 – 14:50
15	OE-111	The Influence of The Use of Fogging to Control Dengue Hemorrhagic Fever (DHF) on Health Impairments of Health Workers: A Scoping Review	14:50 – 15:00

16	OE-112	Food Waste Treatment and the Effect of Composting on The Gambia's Carbon Footprint	15:00 – 15:10
17	OE-113	Correlation of Personal Factors with Unsafe Action of Health Worker in Nine Puskesmas, Kediri City	15:10 – 15:20
18	OE-115	Waste Management, Community Participation and Local Wisdom in Environmentally Based Disease Control in Coastal Areas Through The Theory Of Planned Behavior Approach: A Systematic Review	15:20 – 15:30
19	OE-117	Climatic Factors Influencing Malaria in Banjar District, Indonesia	15:30 – 15:40
20	OE-118	Climate Change Due to Mobility Restrictions During the Pandemic COVID-19: A Review	15:40 – 15:50
21	OE-119	A Systematic Review of Airborne Microplastic Contamination: The Effects on Human Lungs	15:50 – 16:00
22	OE-120	The Role of Government in Encouraging the Implementation of Occupational Health and safety in Companies	16:00 – 16:10

Tuesday, 03 October 2023 (ISoPH Day 2)

Time : 12:30-16:10
Room : Breakout Room 3
Moderator : Ulva Noviana, M.Kep
Co-Moderator : Yohanes Kambaru Windi, S.Pd, M.Kes, MPH, PhD

No.	Abstract ID	Title	Time
1	OG-103	Risk of Family Cigarette Exposure on Abnormal Nervous Development in Toddlers: Bibliometric Visualization and Systematic Literature Review	12:30-12:40
2	OG-104	Sleep Quality and Sleep Pattern Towards Absenteeism of Healthcare Students	12:40 – 12:50
3	OG-105	Application of Supportive Group Therapy on Depression among Elderly with Hypertension	12:50 – 13:00
4	OG-106	Factors Associated with Coping Mechanisms on Compliance with Diabetes Mellitus Patients at Katobu Community Health Center, Muna Regency 2023	13:00 – 13:10
5	OG-107	The Most Influential Factor in Smoking Behavior Aged 15-24 years in Bantul, Special Region of Yogyakarta, Indonesia	13:10 – 13:20
6	OG-108	Determining Family Length in Patients with Hallucination Disorders in Surabaya City, East Java, Indonesia?	13:20 – 13:30
7	OG-109	Joinpoint Trends Analysis of Disability Adjusted Life Year of Anxiety Disorders and Depression from 1990 to 2019 in Indonesia	13:30 – 13:40
8	OG-110	Mental Health Readiness of the Bride and Groom in Marriage Readiness: Literature Review	13:40 – 13:50
9	OG-111	Mental Health Screening and Its Correlation to Academic Self-Efficacy among Public Health Students	13:50 – 14:00
10	OD-137	Reproductive Health of Female Students in Islamic Boarding School Culture	14:00 – 14:10
11	OD-138	Effectiveness of Training for Cadres in Stunting Prevention Efforts in the Bangkalan District Area	14:10 – 14:20
12	OD-139	Maternal Empowerment in Decision Making for Birth Preparedness and Complication Readiness: A Literature Review	14:20 – 14:30

13	OD-121	Unmet Need for Family Planning among Married Women in Urban Areas of Jember Regency, East Java, Indonesia: Does Gender Equality Matter?	14:30 – 14:40
14	OD-122	Knowledge of Young Women About Breast Self Examination (BSE) to Detect Breast Cancer at SMAN 1 Magetan	14:40 – 14:50
15	OD-123	Levels of Premenopausal Anxiety in the Group of Women Given Lavender Aromatherapy and the Placebo Group	14:50 – 15:00
16	OD-124	Hemoglobin Levels in Anemia Pregnant Women with Given of Blood Supplement Tablets and Combination of Moringa Extract	15:00 – 15:10
17	OD-125	Comparison of Back Pain in 3rd Trimester Pregnant Women Based on Parity and Age in the Complementary Herbal Compress Ball Therapy Group at PMB Yulis, Malang City	15:10 – 15:20
18	OA-120	Prevention of Hypertension to Increase Elderly's Quality of Life Through Screening and Education	15:20 – 15:30
19	OC-108	Enhancing Cardiopulmonary Resuscitation (CPR) Training for Community with Foam Pillows: A Promising Approach	15:30 – 15:40
20	OC-120	Role of Community Mental Health Nurses to Handling Psychosocial Problem Related Domestic Violence in Indonesia	15:40 – 15:50
21	OI-101	Nano-emulsion of mangosteen rind extract in mucoadhesive patch for periodontitis regenerative treatment: In Vivo study	15:50 – 16:00
22	OI-102	Antibacterial Activity of Yemen Sidr Honey Against Periodontopathogen Bacteria	16:00 - 16:10

ABSTRACTS

Abstract List

E. Environmental Public Health, Occupational Health and Safety

SCOPE – A:

EPIDEMIOLOGY, COMMUNICABLE AND

NON- COMMUNICABLE DISEASES

OA-101

Stroke Risk Factors Based on The Framingham Stroke Risk Score Among Urban vs Rural Elderly Communities

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Abstract

Background: Stroke causes the highest death in Indonesia based on 2019 WHO Global Health Estimates. Framingham Stroke Risk Score (FSRS) can predict the 10-year stroke risk. There isn't much data related to the comparison in risk factors between urban and rural communities in Indonesia based on the FSRS assessment, especially in elderly subject. This study aims to compare stroke risk factors based on the FSRS between the elderly in urban and rural communities. We also determine the relationship between environmental factors and stroke risk factors. **Methods:** This study was a cross-sectional study using secondary data from Riskesdas 2018. Elderly (55-84 years old) in Surabaya and Kabupaten Malang without stroke history were included. There were 810 subjects that met the inclusion criteria in this study. The data was analysed using Microsoft Excel and SPSS programs. Independent sample t tests, chi-square, and binary logistic regression were used. **Results and Discussions:** Comparison of risk factors in elderly based on the average probability of stroke within 10 years by FSRS is higher in rural communities (9.05 ± 6.68 vs 7.77 ± 6.20). **Conclusions:** There is a higher probability of stroke in rural communities (9.05 ± 6.68 vs 7.77 ± 6.20). There is a relationship between environmental factors, namely economic status, education level, and living habits, with the measurement of stroke risk factors based on the Framingham Stroke Risk Score (FSRS).

Keywords: Elderly; Framingham Stroke Risk Score; Rural; Stroke; Urban.

OA-102

The Use of *Camellia sinensis* to Lower Neuron Specific Enolase Level in Acute Ischemic Stroke

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Abstract

Background: This study aim to determine the efficacy of *Camellia sinensis* to lower neuron specific enolase (NSE) level in acute ischemic stroke. **Methods:** A double-blind, randomized, placebo-controlled trial was conducted in November 2020 – August 2021. Subjects were all acute ischemic stroke patients presented to the emergency room during the recruitment period. Patients were then randomized into placebo or experimental group and followed up to 7 days of treatment. Both the NSE level and NIHSS score was measured on the first and seventh day of admission. **Results and Discussions:** A total of 32 subjects (13 control, 19 experimental) is included in this study. There is no significant difference in demographic data, baseline NSE, and baseline NIHSS score between the two groups. However, the day-7 NSE level is significantly lower in the experimental group compared to the control group (17.05 ± 21.72 vs 62.02 ± 39.20 ng/mL; $p<0.001$). Odds ratio analysis reveals that the experimental group is 2.19 times more likely to have a normal NSE level in day-7 compared to the control group. The decrease of day-7 NIHSS score is also greater in the experimental group compared to the control group (-2.42 ± 2.22 vs -0.62 ± 0.77; $p=0.012$). In addition, the experimental group is 1.58 times more likely to have neurological improvement on day-7 compared to the control group. **Conclusions:** This study confirms the efficacy of *Camellia sinensis* to lower NSE level and improve neurological outcome in acute ischemic stroke patients. However, further studies with similar intervention are needed to confirm this finding in a wider population.

Keywords: Acute ischemic stroke; *Camellia sinensis*; EGCG; Neuron specific enolase; Randomized controlled trial.

OA-103

Correlation of Stroke Risk Factor with Outcome of Non-Thrombolysis Acute Ischemic Stroke Patients

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Abstract

Background: Stroke is the second leading cause of death worldwide with mortality rate of about 5.5 million people and the third leading cause of chronic disability worldwide with over 50% of survivors. Indonesia has the highest stroke mortality rate among countries in Asia. Stroke is associated with modifiable and non-modifiable risk factors. Stroke patients will have limitations in their daily activities. The limitations vary depending on their outcomes. This study aims to determine the correlation between stroke risk factors and stroke outcomes. **Methods:** This research used cross-sectional observational analytic study and non-probability sampling with total sampling technique. The research subjects consisted of 77 non-thrombolysis acute ischemic stroke patients who came to the emergency room of Mohammad Noer General Hospital from September 2022 to February 2023. The stroke risk factors were assessed using the R-FSRS (Revised Framingham Stroke Risk Score) and patient outcomes were assessed using the NIHSS (National Institutes of Health Stroke Scale). **Results and Discussions:** The correlation between the risk factor of stroke and the outcome of non-thrombolysis acute ischemic stroke patients was significant with a P value <0.001. The correlation between blood pressure and type 2 diabetes mellitus with stroke outcome as assessed by the NIHSS was significant with a P value <0.001. **Conclusions:** There was significant correlation between the risk factor of stroke as assessed by R-FSRS and the outcome of stroke as assessed by NIHSS in ischemic stroke patients. There was a significant correlation between blood pressure and type 2 diabetes mellitus with stroke outcomes.

*Keywords***:** Ischemic Stroke; R-FSRS; NIHSS

OA-104

Identification of Risk Factors for High Prevalence of the Hypertension Among Farm Workers in the Agro Industry Area Jember

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Abstract

Background: The prevalence of hypertension among farmers/farm workers in Indonesia reaches 36.1%. Many studies have been conducted on the causes and risk factors for hypertension in farmers/farm workers. However, each agro-industrial area has its own characteristics, so it is important to recognize these problems so that solutions can be found. This study aims to identify problems related to risk factors for hypertension in farm workers in Jember Regency. **Methods:** This research is observational analytic research by cross sectional study. The target population is the agro-industrial community, especially farm workers. Determining the sample size in this study used total sampling, namely a number of 64 farm workers with hypertension based on medical record data at the Puskesmas. The research instrument was a questionnaire with structured interviews and data analysis test by chi square test. **Results and discussion**: This study collected data on various risk factors that could determine the prevalence of hypertension among farm workers, such as smoking, obesity, high fat intake, excessive alcohol intake, high salt intake, and ignorance. From the statistical test results of the six variables, only two variables have a high significance value ($\alpha<0.05$). The two variables are high salt intake ($\alpha=0.045$) and ignorance factor ($\alpha=0.027$). **Conclusion**: Variables that have a correlation with hypertension are high sodium intake and the respondent's ignorance factor. Both of these factors are closely related to knowledge, so the involvement of health workers to provide continuing education is needed.

Keywords: Agroindustry worker; hypertension; risk factor

OA-106

Prevention of Oral Cross-Infection by Using Povidone-Iodine Compared with Other Antiseptic Agents for Orally Transmitted Diseases: Review

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Abstract

Aim: Compare the effectiveness of povidone-iodine with other antiseptic agents in preventing oral cross-infection and transmission of orally transmitted diseases. **Background:** there is a gap in the literature regarding a comprehensive comparison between Povidone-iodine and other formulations in terms of their effectiveness in preventing oral cross-infection and transmission of orally transmitted diseases. **Method:** Utilizing the Google Scholar and PUBMED databases, the researchers reviewed relevant studies over the previous five years. The snowballing approach was utilized to locate more pertinent articles. **Result:** Povidone-iodine has shown effective antiseptic properties in the oral cavity without disrupting its natural balance. It is a valuable preventive oral transmitted disease for patients and healthcare providers, and there is no evidence to show the side effects when long-duration. **Conclusions:** povidone-iodine can be safely used as an antisepsis for the oral cavity as prevention of orally transmitted diseases as personal prophylaxis and it's the most effective mouth rinse for viral infection in the oral cavity due to the fast action**.**

Keywords: Antiseptic; COVID-19; Oral transmitted diseases; Povidone-iodine; SARS-COV-2.

OA-107

Risk Factors of Coronary In-Stent Restenosis in Drug Eluting Stents: A Systematic Review and Meta-Analysis

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Abstract

Coronary restenosis is an event of reduction of the coronary artery diameter regardless the stent implantation during percutaneous coronary intervention. This event can happen both in uncoated (bare metal) or coated (drug eluting) stents. However, factors affecting the incident have not yet been discovered. This systematic review and meta-analysis intended to delve the risk factors frompatients clinical and angiographic characteristics standpoint of the incident in bare metal stents (BMS-ISR) and drug eluting stents (DES-ISR). From our study, we found that diabetes mellitus (OR 1.44 [95%CI 1.05 to 1.98] p < 0.00001), hypertension (OR 1.96 [95%CI 1.52 to 2.54] p < 0.00001), smoking (OR 1.26 [95%CI 1.01, 1.57] p = 0.04), family history of CAD (OR 1.53 [95%CI 1.03 to 2.27] p=0.04) as the patients' clinical characteristics that play a role. As the angiography characteristics, stent lesion at LAD (OR 1.01 [95%CI 0.94 to 1.09] p = 0.69), LCX (OR 1.21 [95%CI 0.95 to 1.55] p = 0.13), and RCA (OR 0.97 [95%CI 0.90 to 1.05] p = 0.45) does not contribute of the occurrence of the event. However, patients with two target lesion (OR 1.45 [95%CI 1.19 to 1.76] p = 0.0003) and multi vessel disease (OR 2.13 [95%CI 1.75 to 2.60] p < 0.00001), in addition patients with longer stent length and smaller stent diameter seems on risk factor of developing ISR in both BMS and DES.

Keywords : Bare metal stents; Drug eluting stents; Meta analysis; Risk factor ISR; Systematic review

OA-108

Evaluation of Short-Course for Private doctors in Managing Children Tuberculosis as a part of Public-Private Mix in Surabaya, Indonesia

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Abstract

Background: Children are very susceptible to tuberculosis transmission, and the problems often encountered in child tuberculosis are about diagnosis, treatment, and prevention according to standards. This study aimed to improve the private doctor's role in discovering and managing child tuberculosis cases according to the Directly Observed Treatment Short-course program. **Methods:** This quasi-experimental study with a pre-post design described 75 private doctors (intervention group) who attended the courses and provided assistance four times in two months in conducting early detection of children with tuberculosis and 75 private doctors (control group). This study was conducted in September-December 2017 and used descriptive quantitative data analysis. **Results and Discussions:** It was gathered that 84% of private doctors attended a course to assist a suspected child with a moderate level of knowledge (60.0%). Adjusted by the years of work, compared to the control group, the doctors in the intervention group could screen children for TB up to four times higher. Most suspected tuberculosis children had close contact with adult tuberculosis patients (48.1%) during the study. **Conclusions:** This study found that private doctors suspected tuberculosis in children after monitoring in the intervention group was more significant than in the control group. There has been an increase in the discovery of tuberculosis suspected in children by private doctors who intervened through courses and routine assistance.

Keywords: Public Private Mix; Tuberculosis; Children; Private doctor; Evaluation

OA-110

Assessment of Estimated Kidney Function Based on Creatinine in Indonesian Adult Populations: Calling for Validation of Performance

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Abstract

Background: The estimated glomerular filtration rate (eGFR) using creatinine serum is a common method to determine kidney function. Currently, eGFR formulations including Chronic Kidney Disease-Epidemiology Collaboration (CKD-EPI), Full Age Spectrum (FAS), new European Kidney Function Consortium (EKFC), Dietary Modification in Renal Disease (MDRD) and Cockcroft-Gault (CG), have been introduced and widely used in clinical settings. However, the degree of categorical agreement among those formulas in the Indonesian population remains unknown. The purpose of this study was to evaluate those formulas in different classifications of GFR in the adult Indonesian population. **Methods:** The study population consisted of 9,557 participants (median age 40 years, 68% male) who underwent regular medical check-ups in August 2023. Serum creatinine levels were determined using enzymatic and modified Jaffe methods. The eGFR CKD-EPI was considered the corresponding GFR in comparisons. The mean differences and 95% limits of agreement of eGFRs between each equation and the CKD-EPI equation were determined using Bland-Altman plots. To compare the equations, Pearson's correlation coefficients (r) were determined for different GFR categories. **Results and discussion:** The median creatinine level of population was 0.94 mg/dL. The CKD-EPI2021 and other equations have categorical agreement ranged from 67.24 to 93.18%. The correlation between CKD EPI-2021 varied; for CG, MDRD, CKD-EPI2009, FAS and EKFC, it was 0.627, 0.927, 0.927, 0.998 and 0.83, respectively (p=0.001). **Conclusions:** Based on our findings, there were significant disparities in eGFR evaluation in the Indonesian adult population, depending on the equation used. Prospective research in various clinical contexts using measured GFR is required to validate eGFR.

Keywords: Creatinine; eGFR; kidney function; Indonesia

OA-111

Reported Prevalence of Gestational Diabetes Mellitus in Jambi: The Relationship with Socioeconomic Factors, Age, BMI, Hypertension, and Social Support

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Abstract

Introduction: Gestational diabetes mellitus (GDM) is a global problem that occurs in the world. This case occurred in pregnant women at 24-28 weeks of gestation. The global prevalence of GDM varies widely from 1% to 40%. **Objective:** The purpose of this study is to describe the prevalence of GDM in Jambi and the risk factors for GDM. **Methods**: This research method used a case control for analytic studies, the sample included 122 women with GDM and 202 women without GDM. The research has an inclusion criterion is pregnant women at 24-28 weeks of gestation. **Results and discussion**: The results of the study found that the highest prevalence in Jambi 37,6%. The average risk factors for GDM are hypertension, family history of DM, BMI > 25 kg/m^2 and social factors. The results of a journal review also show that mothers who give birth with GDM have a 48% risk of developing DM in the future. **Conclusion**: Based on the conclusion in this study, that with the wide variation in risk factors of GDM, it is better to set a GDM risk factor score so that other health services can use these indicators as the gold standard for screening GDM.

Keywords: Gestational diabetes mellitus; Risk Factors, Jambi

OA-112

Analysis of Risk Factors for Type 2 Diabetes Mellitus in Kepulauan Seribu Utara District DKI Jakarta Province

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Abstract

Background: Societal structure dynamics significantly contribute to lifestyle changes that increase the risk of Diabetes Mellitus (DM). The prevalence of DM in DKI Jakarta in 2020 was 1.37% and increased in 2021 by 2.82%. This study aims to analyze and determine the risk factors that most influence the incidence of Type 2 DM in Kepulauan Seribu Utara District. **Methodology:** This research is an analytical study with a case-control design. It was conducted in August 2023 using SIPTM secondary data from the Health Sub-Office of Kepulauan Seribu Regency in 2022. The sample size used the Lemeshow formula, with 152 respondents divided by 76 cases and 76 controls, by purposive sampling. **Results and Discussions:** The proportion of respondents aged <45 years was 51.32%, and females was 53.29%. Bivariate analysis showed that age, gender, obesity, central obesity, high blood pressure, family history of DM, and sugar consumption related to the Type 2 DM (p-value <0,05). Multivariate analysis shows four variables influencing the Type 2 DM: age (OR=2,6), family history of DM (OR=5,3), sugar consumption (OR=4,7), and the most dominant variable influencing is high blood pressure (OR 11.3). It means that people with high blood pressure have an 11.3 times greater risk of developing Type 2 DM. **Conclusion.** People aged ≥45 years or with a family history of DM must be more alert, maintain daily sugar consumption, and normal blood pressure. It's necessary to execute a CERDIK campaign to prevent DM Type 2 and promote screening of risk factors to increase community participation.

Keywords: *Diabetes Mellitus; High Blood Pressure; Risk Factors*

OA-113

The Shift of STEMI Management and Outcomes in Asia and Europe in the Aftermath of the COVID-19 Pandemic: A Meta Analysis

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Abstract

Background: The COVID-19 pandemic created global issue especially in the field of cardiovascular disease, specifically in STEMI management and outcome in Asia and Europe. No study has compared those yet in between these continents. **Methods:** This meta-analysis search for PubMed, Scopus, Web of Science, Proquest, EBSCO using MeSH terms, including cohort studies of patients with STEMI reporting their door to balloon (DtB) time, symptom onset to first medical contact (OtFMC) time and mortality before and during the pandemic with the intent for PCI as the treatment strategy of choice, excluding patients of NSTEMI or UA only, failed to make comparison before and during pandemic and different study design **Results:** With a total of 38 cohort studies were included in this meta-analysis, Asia group's managements and main outcomes were: OtFMC (MD 18.66min [95%CI 5.16-32.17], I^2 =70%, p=0.007), DtB time (MD 22.76min (95%CI 13.34-32.18) I^2 = 97%, p<0.0001), and mortality (OR = 1.09 [95%CI 1.03–1.15], I^2=48%, p= 0.002). Meanwhile, the Europe group's were: OtFMC (MD 25.93min [95%CI 13.93-37.92], I^2 = 61%, p<0.0001), DtB time (MD 6.00min [95 CI 1.26-10.74], I^2=89%, p=0.01), and mortality (OR = 1.21 [95%CI 1.08–1.37], I^2=22%, p=0.001). **Conclusion:** Europe and Asia experienced higher door to balloon time, symptom to first medical contact time, and mortality during the pandemic, with Europe has a lower DtB. Many factors affecting the results and this study can be multifactorial evaluation for all health stakeholders in combating STEMI patients during critical period.

Keywords: COVID-19; Door to Balloon Time; Onset to First Medical Contact Time; PCI; STEMI

OA-114

The Association of Secondhand Smoke and Hypertension Among Adult Male in Bali, Indonesia

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Abstract

Background: Secondhand smoke (SHS), also known as passive smoking is widely accepted risk factors for hypertension. It is thought to have similar consequences outcomes for major hypertension to that active smoking. This study aimed to determine the association of secondhand smoke and hypertension among adult male. **Methods**: A nation-wide based cross-sectional study of males aged ≥ 18 years were included into analysis. Multivariate logistic regression was used to assess the association between hypertension and potential risk factors of SHS. **Results**: We included 7,087 males in this study out of 14,494 subjects in Bali province, that participated in Indonesian Basic Health Survey (IBHS) 2018 survey. Hypertension prevalence among male adults was 32.3%. Among those hypertensive males, about 20.9% subject was exposed as SHS. Multivariate logistic regression showed significant association between SHS (OR = 1.16; 95%CI, 1.02-1.32) and hypertension with adjusted odd ratio of age (aOR = 1.03; 95%CI, 1.02-1.04) and residence (aOR = 1.10; 95%CI, 0.99-1.23). **Conclusions**: The prevalence of hypertension among older male who exposed SHS was higher among urban residence in Bali's province. We suggest to increase awareness of SHS exposure among older male who life in urban area specifically. Public health campaign of anti-smoking is urgently needed to control hypertension in Bali.

Keywords: Hypertension; Secondhand smoke; Urban; Male; Bali

OA-115

Community Participation: The Key to Effective Dengue Prevention and Control of Dengue Vectors

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Abstract

Background: Dengue is a disease transmitted through the bites of Aedes aegypti and Aedes albopictus mosquitoes. Preventing this disease involves efforts from various stakeholders, including the government, non-governmental organizations, healthcare professionals, and equally important, active community participation. This literature review article will explore the role and impact of community participation in dengue prevention and control. It involves a review of various studies that have engaged communities in dengue prevention efforts and the control of dengue vector transmission. **Methods:** This review employed a strategy of searching for articles in research journal databases and reviewing them. Article searches were conducted through databases such as Scopus, PubMed, and ProQuest from 2013-2023. **Results and Discussions:** Community participation significantly influences dengue vector transmission prevention and control. Community participation needs to be strengthened by various factors such as community organizations, community leaders, community efforts, limited use of insecticides in the community, community involvement in awareness campaigns, and community relationships with health departments, NGOs, and institutions. Community participation has a positive impact on dengue vector transmission prevention and control, but there are also implementation barriers such as limited local health support and budget constraints. **Conclusions:** Community participation plays a crucial role in dengue vector transmission prevention and control. It is important to develop programs that consistently involve community participation and enhance collaboration between the community and local health authorities.

Keywords: Community Participation; Dengue Prevention; Dengue Control.

OA-116

Surveillance of Pneumonia Risk Factors in Residential Areas West Lombok Regency, 2023

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Abstract

Background: Pneumonia is the largest cause of death due to infection in children throughout the world. Pneumonia killed 740,180 children under the age of 5 in 2019.at Indonesia. Many factors contribute to the incidence of pneumonia such as air pollution, unfavorable environment, immunization status. The aim of this research is to analyze risk factors for pneumonia in this residential area through surveillance. **Method:** Cross-sectional research method conducted February – March 2023. The research analysis unit is households with toddlers. The sample size in this study was 210 households with simple random sampling. Dependent variable: Pneumonia incidence, Independent variables are characteristics of toddlers, low birth weight, exclusive breastfeeding, immunization, nutritional status, behavior and home environment. Data were analyzed using multivariate logistic regression. **Results:** In this study with multivariate analysis, that toddlers did not receive exclusive breast milk (OR=3.15, 95%CI=1.09-9.10, p=0.03) where toddlers those who do not receive exclusive breast milk have a 3.15 times risk of experiencing pneumonia, had smoking guests (OR=2.25, 95%CI=1.02-4.96, p=0.04), where toddlers whose homes were visited by smoking guests had a 2.25 times risk of experiencing pneumonia. **Conclusion:** The incidence of pneumonia in toddlers is 22.6%. The most dominant risk factors related to the incidence of toddler pneumonia in West Lombok are toddlers who do not receive exclusive breast milk and guests who smoke. It is recommended to keep toddlers away from smoke in their environment and provide exclusive breast milk.

Keywords: Pneumonia; smoking; exclusive breastfeeding

OA-117

Experience and Perceptions of Self-Disclosure Among People Living with HIV (PLHIV): A Qualitative Study

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Abstract

Background: Self-disclosure is a complement to information about a person's health condition and is related to preventing HIV transmission. However, it is not uncommon for people living with HIV/AIDS to reveal their status because they are worried about stigma from society. **Method:** This research was a qualitative study with 5 main informants for PLWHA who revealed their status and 6 triangulated informants (partners, mothers, and health workers). The data analysis technique used Rapid and Rigorous Qualitative Data Analysis (RADaR). **Results and Discussion:** There are efforts to reveal positive HIV status, including self-awareness of having carried out risky behavior, but there are obstacles to self-disclosure namely the risk of being stigmatized by society. The benefit of self-disclosure is getting support. The reciprocity of self-disclosure is the creation of an increasingly intimate relationship with family. **Conclusion:** Self-disclosure for PLHIV is related to considering the positive/negative influences received by PLHIV, besides also considering the benefits for the lives of PLHIV, especially in undergoing medical therapy, risks in personal relationships, and responses. from the interlocutor. Recommendation: Health care provides need to approach the community to increase knowledge about HIV. Increase cooperation with government and citizens who care about AIDS. Improving PLHIV consultation services.

Keywords: HIV/AIDS; Qualitative study; Self-disclosure

OA-118

Unlocking the Potential: Vitamin D Supplementation in Tuberculosis and Respiratory Infections

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Abstract

Background: The potential role of Vitamin D supplementation in the management of tuberculosis (TB) and prevention of respiratory infections has attracted significant attention in recent years. This comprehensive literature review aims to synthesize and critically assess findings from key studies conducted in diverse geographic regions to elucidate the impact of Vitamin D supplementation in these contexts. The primary objective of this literature review is to evaluate the efficacy of Vitamin D supplementation as an adjunctive therapy for TB treatment and its preventive role in respiratory infections **Methods:** We conducted a systematic search of relevant research articles, selecting five studies for inclusion in this review. These studies encompassed randomized controlled trials and observational investigations, all exploring the relationship between Vitamin D supplementation and TB or respiratory infections. We analyzed the methodologies, findings, and implications of each study to provide a comprehensive overview. **Results and Discussions:** There are 8 articles obtained and 5 articles analyzed through the suitability of the topic, objectives, methods used, sample size, and results from each article. **Conclusions:** The provision of elevated amounts of vitamin D hastened the clinical and radiographic enhancement in every TB patient and heightened the activation of the host's immune system in individuals with initially low serum vitamin D levels.

Keywords: Vitamin D; tuberculosis; respiratory infections; supplementation

OA-119

Betel Quid Chewing Habit and Its Relation to Periodontal Status: A Systematic Review

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Abstract

Background: Betel quid chewing is associated with the periodontal status, in which it may increase the risk and severity of periodontal disease. The objectives of this systematic review were to provide an overview of the literature about the association between betel quid chewing habit and periodontal status. **Materials and methods**: Publication searches were conducted on PubMed database with criteria, such as: published between 2013 and 2023, written in English, and assessed associations between betel quid chewing habit and periodontal status. The included publications were analyzed for study design and main conclusions by using a critical appraisal tool. **Results:** A total of 5 articles were evaluated. The habit of betel quid chewing was greatly influenced by the community lifestyle. Duration and frequency of chewing had a significant relationship with periodontal inflammatory parameters [PI, BOP, PD (4-6 and >6 mm), clinical AL and MBL], which were significantly higher in BQ chewers than non-chewers. **Conclusions**: Betel chewing habit was associated with a worse periodontal status, in which prolonged and excessive use of betel nut induced higher incidence and severity of periodontitis.

Keyword: Betel quid; Chewing habit; Periodontal status

OA-120

Prevention of Hypertension to Increase Elderly's Quality of Life Through Screening and Education

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Abstract

Background: Health and physical health are crucial for a healthy life, as they influence productivity, productivity, and ability to maintain it. The balance between these factors can lead to optimal living conditions. The quality of life in RW 09 Bandar Lor is divided into four domains. Physical health domains showed the lowest score among other domains with a score of 52.9. Min max (25-89.2). Health screening results showed that 70% respondent of the sample suffered hypertension. The study aimed to improve the quality of life for the elderly in RW 09 Bandar Lor by implementing a program called "PURABAYA". **Methods:** The program involved 106 elderly participants, who were taught how to make anti-hypertensive drinks, receive counseling to increase knowledge about hypertension, and engage in exercise together. Blood pressure measurements were taken in the first week and followed up three weeks after the intervention. **Results and Discussions:** Quasi-experimental study designs (pre-post intervention) was used in this research. The results showed that 71 respondents (66.67%) increased their knowledge about physical activity and 23 (58.97%) increased their knowledge about nutrition after counseling. Additionally, 93.3% of the participants experienced a decrease in systolic blood pressure after the program. The Wilcoxon test showed p-value of the changes in systolic blood pressure indicates $0.000 < 0.005$, which means there is a difference between the systemic blood pressure before and after the program. **Conclusions:** Based on the results, it can be said that the program is effective in lowering blood pressure in the community.

Keywords: Quality of Life; Elderly; Hypertension; Kediri; Intervention

SCOPE – B:

PRIMARY HEALTH CARE AND

HEALTH SERVICE MANAGEMENT

OB-101

Analysis of the Achievement and Utilization of Capitation Funds through the Performance-Based Capitation (KBK) mechanism in the Primary Healthcare in Malang

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Abstract

Background: Capitation is one source of financing in primary healthcare which implemented a performance-based capitation system since 2019. Performance-based capitation achievements influence the amount of capitation received by primary healthcare. Several primary healthcare experienced a decrease in capitation when they did not reach the indicators of performance-based capitation. This study analyzed the achievement and utilization of Performace-Based Capitation in the Primary Healthcare in Malang. **Methods:** This study used descriptive qualitative research design with in-depth interview on six informants from three primary healthcare who were responsible to manage capitation and used secondary data of Performace-Based Capitation achievement from BPJS Kesehatan. Data were analyzed using content analysis approach, including data reduction, presentation, conclusion, and verification. **Results and Discussions:** Result showed that there were disparities in capitation funds because it was determined by differences in the number of registered patients. In addition, there were also differences in Performace-Based Capitation achievement. Among the three indicators, the Outpatient Referral Ratio for Non-Specialized Cases (RRNS) was consistently achieved, but the contact rate (AK) and controlled prolanis participant ratio (RPPT) indicators were still not fully achieved. Primary Healthcare which were The Regional Public Entity (BLUD) status managed capitation funds which have been incorporated into BLUD funds which were then used for around 60% of services cost and 40% of operational costs. The use of BLUD Puskesmas funds was regulated by Mayor's Regulations. **Conclusions:** Primary Healthcare encourages the achievement of Performace-Based Capitation indicators so that the capitation funds can be fully received and optimally utilized by Primary Healthcare.

Keywords: Utilization; Capitation; Performance-Based Capitation; Primary Healthcare

OB-102

Decentralization Governance Analysis Based on WHO Building Blocks: Comparing of Indonesia and Germany Health Systems

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Abstract

Background: Establishing health and wellness in Low-Middle Income Countries (LMICs) and High-Income Countries (HIs) is a challenging process due to several factors. In fact, life expectancy in LMICs is significantly lower than in HIs due to health imbalance. The lack of disproportionate, preventable, or correctable discrepancies in the health of specific populations is referred to as equity in health. A strong and integrated healthcare system is required to achieve health equity in a country. **Methods:** This study analysis the health systems of Indonesia and Germany utilising a review of 20 literatures followed by Boolean searching algorithms on verified databases and grey literature to validate the contrast. **Results and Discussions:** The nation profiles reveal differences in demography and socioeconomic indicators for the two countries, resulting in similarities and differences based on WHO building blocks data. The similarities include governance decentralisation and a method to develop skilled workers in health. Comparing these two health systems, despite the fact that Germany's health systems advanced in many areas as the best multi-payer scheme, Indonesia's BPJS improved as the world's largest single-payer system. **Conclusions:** Germany and Indonesia have both comparable and distinct health-care systems. However, Indonesia has more major issues due to shortages, unequal distribution, and a restricted budget. Germany's health system, on the other hand, has significant benefits due to its strong leadership, higher levels of funding, and improved support systems. Nonetheless, both countries have very different health systems that serve their respective populations by offering community health access.

Keywords: building blocks; comparison; Germany; health systems; Indonesia

OB-103

The Relationship of Knowledge, Attitudes and Actions of Cadres in the Discovery of Suspected Cases of Diphteria in the City of Probolinggo

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Abstract

According to the World Health Organization (WHO), diphtheria is an infectious disease whose epidemic is feared globally. This is because the death rate caused by diphtheria is high, especially in children. In 2019, there were 529 cases with 23 deaths with a Case Fatality Rate (CFR) of 4.35%. Based on the Probolinggo City Health Profile in 2022, it is known that 3 cases of diphtheria were discovered. The study research location is located in the Probolinggo City Health, Control, Population and Family Planning Service area or more precisely in the 6 work areas of Probolinggo City health centers,. This research uses a quantitative method with a cross sectional approach. Respondents were obtained from population and sample calculations. The respondent population was 1095 cadres, then a sample calculation was carried out using cluster random sampling, obtaining the number of respondents in each work area of the health center with a breakdown of 92 samples. Based on the results of the research, conclusions can be drawn, namely, the characteristics of the highest respondents consist of an average age including 41-50 years of age as many as 34 people, the average occupation is Housewife (IRT) as many as 81 people, the average length of work is included in category >10 years as many as 61 people, and the average education is high school as many as 65 people. The results of the Chi-Square test analysis showed that age and education had a significant influence on cadre behavior, while cadre employment and length of service did not have a significant influence on cadre behavior.

Keywords: Knowledge; attitudes; actions; cadres; diphtheria

OB-104

Implementation of Communication, Bureaucracy and Disposition of Cost Reduction and Cost Difference in Preventing BPJS Health Fraud in Hospitals

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Abstract

Background: : Fraud related to BPJS Kesehatan financing still occurs and can cause financial losses for the state, one of which is a deficit in BPJS Health financing. The Government of Indonesia issued PMK No. 51 of 2018 concerning the Imposition of Cost Reduction and Cost Difference in the Health Insurance program as an effort to prevent fraud committed by health facilities and BPJS Kesehatan participants. This study aims to analyze the picture of the implementation of PMK policy No. 51 of 2018 concerning the implementation of cost reduction and cost difference in hospitals. **Methods:** qualitative descriptive through structured interviews with key informants of medical service managers, front office officers, casemix teams, and main informants of BPJS Health inpatients. **Results and Discussions:** communication variables are not in accordance with the Minister of Health Regulation, there is still a lack of facilities to support the communication process, the variable disposition of the implementor already understands the objectives and benefits of the policy, and there is no rejection in its implementation, bureaucratic structure variables already have SOPs that regulate the implementor's workflow, there is coordination between hospitals and BPJS Kesehatan, and not through a bureaucratic structure that is too complicated. **Conclusions:** the implementation of policies based on communication factors has not been in accordance with regulations, dispositions, and bureaucratic structures in accordance with PMK No. 51 of 2018 concerning the Imposition of Cost Reduction and Cost Difference.

Keywords: Implementation of Communication; Disposition; Bureaucracy; Cost Reduction; Cost Difference

OB-105

Efforts to Improve Performance of Inpatient Unit of Mabarrot Islamic Hospital Gresik Based on Malcolm Baldrige Performance Criteria

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Abstract

Background: Efficient hospital service performance is important in reflecting the success of hospital services. Based on the Bed Occupancy Rate (BOR) of the hospital, the data obtained in 2019 was 51.47%, in 2020 it was 40.85%, and in 2021 it was 45.92%, **Methods:** This study is an analytic observational study with a cross-sectional approach. The study respondents were 34 people consisting of doctors, nurses, midwives, administrative staff. The questionnaire was tested for content validity and obtained a value of CVI = 0.77, carried out construct validity and obtained 90 items greater than r table = 0.476. Reliability test was used using Cronbach's alpha formula and obtained a value of 0.986. Aims to improve the performance of Mabarrot Islamic Hospital inpatients by using the Malcolm Baldrige Performance Criteria tool which consists of 8 (eight) criteria, namely: Organizational Profile; Leadership; Strategic Planning; Customer Focus; Assessment, Analysis, and Knowledge Management; Human Resources; Operational Activity Focus; and Results, each of which is tested for relationship and strength of relationship with Spearman Correlation. **Results and Discussions:** There is a very strong relationship between 3 criteria, namely Human Resources of 0.993, Results of 0.837, Strategic Planning of 0.758 towards Customer Focus Criteria; and Customer Focus Criteria of 0.837 against Results Criteria. **Conclusions:** That performance based on Malcolm Baldrige criteria at Islamic Hospital Mabarrot Gresik is good.

Keywords: Malcolm Baldrige Performance Criteria; Efficiency; In-patient Unit; Hospital Management.

OB-106

Midwives' Perceptions of Berselendang Sutra Program Implementation at Primary Health Care, Banyuwangi Regency

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ABSTRACT

Background: MMR and IMR are indicators to assess a country's health status. However, until now MMR and IMR in Indonesia are still relatively high compared to other ASEAN countries. Various efforts have been made to suppress MMR and IMR, one of which is by providing opportunities for local governments to innovate public health services. Paspan Primary Health Care has created an innovative program to reduce maternal and infant mortality in 2021, because it contributes to cases of maternal and infant mortality in Banyuwangi Regency almost every year. The purpose of this study was to describe implementation of Berselendang Sutra program in work area of Paspan Primary Health Care, Banyuwangi Regency from the perceptions of midwives. **Methods**: This type of study is descriptive with a quantitative approach. Unit of analysis was the MCH field at Paspan Primary Health Care with 11 midwives as respondents. **Results and Discussions**: The results showed that midwives' perceptions of program input aspects were mostly sufficient to support program activities. In process aspect, there is no job description and training for officers. In output aspect, several program targets have been achieved. **Conclutions**: There needs to budgeting for the program, makin additions, maintenance and repairs to existing facilities. It is necessary to immediately prepare the procedure and tchnical instructions to guide the implementation of the programme. Coaching and training must be regularly scheduled for officers to establish high officer performance.

Keyword: Implementation programme; perception; midwife

OB-107

Brand Awareness of Healthy Services at Primary Health Center: An Innovative Marketing Technique

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Abstract

Background: Health centers play a vital role in prevention and health promotion. While most individuals visit health centers for treatment, there are still relatively few people who visit health centers for preventive care, aiming to stay healthy. **Methods:** This study employed a qualitative approach with a cross-sectional study design. The sample was calculated using Raosoft with a significant value of 5%, and from the calculation result, it is known that the sample was 400 people. **Results and Discussions:** The majority of the community or 62.25% of respondents (249 people) had received promotions from the Primary Health Center about the innovation program of Healthy Person Mall. Among respondents who had received promotions about healthy people malls, most respondents (38.6%) received them in offline form delivered by health workers. The four types of marketing innovation in healthy people malls are radical innovation, incremental innovation, disruptive innovation, and architectural innovation. Marketing innovation methods that will help build brand awareness of the health center. Marketing innovation to build brand awareness of healthy people malls by rebranding, maintaining, educating, expanding, interacting, hosting events, personalizing, repricing, partnering, and collaborating. **Conclusions:** Marketing innovation for the existence of healthy people malls at Puskesmas is needed so that people visit to maintain and care for their health. Maintaining the health of the community is better than doing medication.

Keywords: Brand Awareness; Prevention; Health Promotion; Puskesmas; Innovative Marketing Techniques

OB-108

Analysis of Factors Affecting Telemedicine Use Satisfaction

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Abstract

Background: The use of telemedicine as an alternative to healthcare has become increasingly important in providing easier and more efficient accessibility to healthcare services. Understanding the factors that influence telemedicine usage satisfaction is a key step in maximizing the benefits of this technology. This literature review aims to; identify key factors that influence telemedicine user satisfaction levels, assess methods used in analyzing telemedicine usage satisfaction factors, and present important findings from related studies. **Methods:** The study involved a literature search through academic databases which included PubMed and Google Scholar. Article selection was based on the inclusion criteria of being published in the last 5 years. Keywords such as "telemedicine", "user satisfaction", "determinants", and related terms were used to search for relevant articles. **Results and Discussions:** From this literature review, a number of key factors that influence user satisfaction in telemedicine utilization were identified. These factors include the availability of adequate technology, the quality of telemedicine services, the level of confidence in the security of personal data, the ease of use of the telemedicine platform, and the interaction between patients and healthcare providers through telemedicine. **Conclusions:** The factors that influence telemedicine usage satisfaction are diverse and interrelated. User satisfaction is an important indicator of successful telemedicine implementation. Therefore, healthcare providers and policy makers should consider these factors in designing, implementing, and improving telemedicine services. Further research and improved research methodologies can provide stronger empirical evidence is a critical step in developing optimal and satisfactory telemedicine practices for all concerned parties.

Keywords: Telemedicine; user satisfaction

OB-109

Analysis of the Relationship Between Hospital Ownership and Google Maps Star Ratings: A Case Study of Regional General Hospitals (RSUD), Private Hospitals, and Muhammadiyah Hospitals (RSM) in East Java

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Abstract

Background: Competition among hospitals in East Java is growing increasingly fierce, especially in the midst of a stagnation in the number of National Health Insurance (BPJS) participants. The Muhammadiyah Hospital network (RSM) faces the challenge of excelling compared to its competitors, including Regional General Hospitals (RSUD) and other Private Hospitals. Star ratings on Google Maps have now become a crucial factor influencing patients' choices and, as such, serve as a relevant indicator for assessing hospital competitiveness. Therefore, further analysis is required to establish a connection between hospital ownership status and star ratings on Google Maps in East Java. **Methods:** This study involved 102 samples, including 34 RSMs, each compared with RSUDs and Private Hospitals in their respective cities. The analysis aimed to examine the relationship between hospital ownership status and star ratings on Google Maps in East Java. **Results and Discussions:** The results of the statistical tests indicated no significant difference in star ratings between RSMs and Private Hospitals (p 0.09; CI 95%) or RSUDs (p 0.08; CI 95%). Additionally, the analysis revealed a Pearson correlation coefficient of -0.190 (p 0.05; CI 95%). While these results approach the threshold of statistical significance, several methodological limitations should be considered, including uncontrolled confounding variables. **Conclusions:** Considering the p-values approaching the significance threshold, this study can serve as a foundation for further research, particularly regarding factors that may influence star ratings. Furthermore, despite the lack of statistical significance in this relationship, there is significant practical potential within the context of hospital management, particularly for RSMs aiming to enhance competitiveness and service quality.

Keywords: Google Maps; Hospital Ownership; Relationship Analysis; Star Rating; Hospital Competition

SCOPE – C:

PUBLIC HEALTH AND NURSING

OC-101

Concept Mapping Care Plan (CMCP) in Enhancing Nursing Students' Academic Achievement in Clinical Practices

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Abstract

Background: Clinical practices are the most important component of nursing education, where the students apply knowledge and skills that had been taught in the classrooms into practice. The success of this application process will enable them to bridge the gaps between theory and practice, thus improving their clinical decision-making abilities and competencies. Concept mapping is a useful tool for developing a care plan for a patient in a clear and logical manner. Therefore, the aim of this study is to assess nursing students' academic achievement in clinical practices using the Concept Mapping Care Plan (CMCP). **Methods:** The study employed a two-group quasi-experimental design with pre-and post-tests on 218 second-year nursing students, which had 109 respondents respectively. Respondents were randomly assigned to a control group (lecture-based) and an experimental group (concept mapping) from four nursing colleges under Institut Latihan Kementerian Kesihatan Malaysia (ILKKM). Significant p-values were considered as those less than 0.05. **Results and Discussions:** The experimental group's mean CMCP scores during clinical practices were 65.23, whereas the control groups were 59.33. The paired t-test with a p-value of 0.05 indicates that there are significant differences between the experimental and control groups. **Conclusions:** The purpose of employing concept mapping as a teaching method is to allow the students to understand the knowledge theory comprehensively and apply it during clinical practice. CMCP can be used to replace the current nursing process used in clinical practice. CMCP can help students enhance their learning experience by linking the ideas better.

Keywords: Academic achievement; Concept mapping care plan (CMCP); Clinical practices; Nursing students

OC-102

Patients' Perceptions of the Success of Conventional Thalassemia Treatment: A Qualitative Investigation

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Abstract

Objective: Thalassemia is a long-term medical condition that harms the mental and physical health of those who are affected by it. These patients are handled by a cradle-to-grave healthcare system that provides them with rigorous conventional therapy. The purpose of this study is to investigate how thalassemia patients feel about the efficiency of traditional treatments for their condition. **Method**: To investigate the problems connected to the perceptions of the efficacy of the standard medicines among thalassemia patients, a qualitative approach was used that blended theoretical and purposive samplings. A total of 21 willing patients were enlisted from the Malaysian Thalassemia Society in Kedah. The Malay and Chinese populations, two of Malaysia's three largest ethnic groupings, made up the sampled patients. **Results:** The majority of thalassemia patients claimed to have relied on traditional medical procedures to treat and lessen the severity of their condition. In this aspect, the patients felt that conventional therapy successfully lowered ferritin levels and raised hemoglobin levels. The employment of conventional therapies using highly advanced and clinically proven procedures has been the subject of a sizable number of in-depth studies that have shown them to be superior to the side effects of traditional medicine, despite the higher cost of the former. **Conclusions:** In summary, patients expressed satisfaction with the standard thalassemia treatments. To adhere to the treatment plans, though, more extensive counseling and instruction are crucial. Therefore, more investigation is needed to examine the patients who have chosen to forego receiving conventional medicines for the treatment of thalassemia.

Keywords: Conventional; thalasseemia; complementary and alternative medicine; qualitative

OC-103

Application of COMBI (Communication for Behavioral Impact) to Stunting in Pamekasan District

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Abstract

Background: The prevalence of stunted babies in Pamekasan is expected to remain in the thousands in 2021. The Pamekasan Health Service (Dinkes) reports a record of 5,457 stunted babies, despite a smaller number compared to the previous year when 7,506 babies experienced stunted growth. However, this year's coverage area is larger. The research objective Applying the COMBI Method to the Stunting Phenomenon in Pamekasan Regency **Methods:** This qualitative research employs social capital. The COMBI method has been employed in the community to reduce stunting prevalence. Data was collected from interviews with 20 health workers overseeing stunting eradication programmes. **Results and discussions**: indicate that stunting prevalence in Pamekasan Regency remains high, necessitating a thorough examination of social capital utilization. The findings of this research reveal that cultural influences have an impact on how inhabitants of Pamekasan district perceive maternal and parental healthcare. The FGD analysis has shown that initiatives to tackle stunting such as the First 1000 Days of Life programme have been introduced, but collaborations between different communities are yet to be established. This necessitates collaboration between the health bureau, educational office, and village to incorporate information on the stunting eradication scheme in all community events. **The conclusions and recommendations**: emphasised the significance of interdivisional and interprogramme cooperation in controlling and diminishing the stunting prevalence. Midwives as officials of Posyandu (Regular Health Care) need to improve the coordination with the local community and emphasize the promotion of stunting-eradication programs.

Keywords: Methode COMBI; Stunting; Stunting in Pamekasan

OC-104

Alertness of Bystander in Rapid First-Aids Management When Sudden Cardiac Arrest Strikes

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Abstract

Background: Sudden Cardiac Arrest (SCA) is the most life-threatening heart disease. In many cases, the risk of death from SCA can be avoided if there is timely first-aid to provide pulmonary resuscitations. People around the victims (bystanders) can be a savior if they are familiar with first aid, especially resuscitation. This study explores the alertness of the bystanders in providing timely first aid for SCA casualties. **Methods:** It is a statistical descriptive study involving 500 participants purposively chosen from four community health centers in Sidoarjo District. The data were collected using questionnaires which are descriptive statistical analyses. **Results and Discussion:** The data analysis shows that the majority of the respondents (58%) are more familiar with heart attacks than SCA (2.6%). Heart attack is perceived as heart attack is the most life-threatening (47%) compared to SCA (24%). Nearly 58% of the respondents seek first aid from the people around the site and 25% call the emergency units. However, 40.2% of the respondents avoid doing anything to save the victims of SCA the reasons of being incapable of providing first-aid (30%), and afraid of making wrong treatments (27%) or being accused (22.6%). **Conclusion:** People around the SCA victim tend to avoid providing first-aid due to poor knowledge and skills to perform first aid, being afraid to make mistakes, and being blamed if the case worsens.

Keywords: Sudden Cardiac Arrest; Bystander; First aid; Resuscitation

OC-105

The Relationship Between Obesity and Physical Activity in School Children Aged 13-15 Years Old in Junior High School Yogyakarta, Indonesia

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Abstract

Background: Globally, the problem of obesity in school children has become an important concern. Obese children will be at risk of becoming obese adults and at high risk of developing metabolic diseases, sleep disorders, bone problems, psychological problems such as loss of confidence, and academic problems. One of the causative factors besides nutrition is lack of physical activity, which causes an imbalance between energy intake and energy expenditure. **Objectives**: The research objective is to determine the relationship between physical activity and obesity in students aged 13-15 in Yogyakarta. **Method:** Cross-sectional study was conducted on junior high school students with a total population of 245 students aged 13-15 who were enrolled as students in grades 7, 8, and 9 at a private high school in Yogyakarta. Anthropometric data were used to determine BMI students. The research instrument in the research was questionnaire aiming at assessing students' physical activity and its characteristics. Data analysis used the Kendal tau test using SPSS version 19.00. **Results:** It was found that 22 students (15.3%) were obese and girls were more obese than boys, namely 12 students (14.5%). Obese students were shown to be significantly less physically active (p = 0.025). **Conclusion:** Child obesity is still high and is highly correlated with lack of physical activity. Schools play an important role in reducing obesity by providing prevention programs and increasing students' knowledge through nutrition education and physical education programs in the school learning curriculum.

Keywords: BMI; Obesity; Physical activity, School Health Promotion; Physical Activity Education Program

OC-106

Determinants of Early Marriage in Aceh Rural Areas

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Abstract

Background: Early-age marriages occur mainly in the lower middle economy, as some of the population still adhere to the belief and tradition that daughters should be promptly married. As for teenagers who are married because of their family circumstances. Even early marriages are often caused by out-of-marriage pregnancies. Parents also think that marrying their daughters at a young age will reduce the family's economic burden. **Methods:** This study uses data from the Regional Office (Kanwil) of the Ministry of Religion (Kemenag) of Aceh, Population of this study is all women who have been married at the age of under 19 years of the total of 507 respondents who live in the countryside of Aceh. Research samples using total sampling techniques. The variables analyzed include early marriages, traditions, knowledge and economics. The analysis used is collinearity, chi-square, and double logistic regression tests. **Results and Discussions:** Traditional and economic factors are significantly linked to early marriage among women married under the age of 19 in the rural Aceh region. The poorest women were 2.23 times more likely to have early marriages than the richest women. Poor women were 1.68 times more prone to early marriage than the most wealthy women. Women with strong traditions were 10.34 times, 12.10 times, and 4.52 times higher than college graduates. **Conclusions:** Traditional and economic factors are significantly linked to early marriages but knowledge factors are more dominant than early marriage events.

Keywords: Early Marriage; Economics; Knowledge; Tradition.

OC-107

Policy, Intervention and Management in Addressing Stunting: A Systematic Review

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Abstract

Background: Stunting is a problem of chronic malnutrition caused by a lack of nutritional intake for a long time. This causes problems in the future which result in difficulties in achieving optimal physical and cognitive development. Stunted children have an Intelligence Quotient (IQ) lower than the average IQ of normal children. This research aims to analyze policies, interventions, and management for handling stunting through a systematic study. **Method**: The design used was a systematic review, articles were collected using electronic databases such as ScienceDirect, SpringerLink, ProQuest, PubMed, and SAGE from 2019-2023. The analysis uses journal content analysis. **Results and Discussion**: Based on the results of a literature review to reduce stunting rates, the policies and management carried out include partnerships between the provincial government and non-governmental organizations, companies, and the community itself. Stunting policies and programs focus on food security, decentralization of the health system, availability of health services and access to health services, maternal education, access to water, sanitation, hygiene, maternal nutrition, and poverty alleviation. Proper policy implementation results from holistic and comprehensive policy formulation. **Conclusion**: Stunting prevention requires cross-program and cross-sector collaboration and is carried out comprehensively. Existing policies and regulations at the central level must be followed up with follow-up at the village level. The community-based management system needs to be improved because the public's high awareness of the importance of balanced nutrition, sanitation, and environmental cleanliness are the main assets for reducing the incidence of stunting.

Keywords: Policy; management; stunting

OC-108

Enhancing Cardiopulmonary Resuscitation (CPR) Training for Community with Foam Pillows: A Promising Approach

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Abstract

Background: Cardiopulmonary resuscitation (CPR) demands precision in life-saving techniques. This study evaluates the efficacy of foam cushions as instructional aids to achieve accurate compression depth and chest recoil during CPR training within a community context. **Methods:** A Quasi-Experimental design, recognized in resuscitation studies, was employed. The study involved 33 participants with no experience with CPRWe enrolled 33 CPR-naïve participants aged 17 to 25 through open recruitment via WhatsApp and Instagram. Foam cushions (45 cm x 60 cm) with compression markers served as instructional tools. The study utilized the Little Anne QCPR CPR manikin by Laerdal and the QCPR application on an iPad Air 2 for performance assessment. **Results and Discussion:** In our study of 33 participants (mean age 19.93), reflecting agile learning potential, foam cushions were examined as CPR training aids. With a balanced gender distribution (43.3% males, 56.7% females), a noteworthy proportion achieved precise compression depth (93%) and chest recoil (96%) during CPR training with foam cushions. These findings underscore the potential of foam cushions as tools to augment CPR training quality, potentially influencing real-life resuscitation outcomes. Further research is warranted to validate their efficacy and explore broader implications for CPR education. **Conclusion:** Foam cushions promise to enhance community-based CPR training by promoting precision in compression depth and chest recoil.

Keywords: Cardiopulmonary resuscitation; Chest recoil; CPR training; Resuscitation education

OC-109

Parental Influence and Physical Education on Adolescents Physical Activity

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Abstract

Background: Physical inactivity is the world's fourth leading risk factor for global mortality. Several studies underline the importance of parents as a health promoting factor and physical education in school for physical activity. The aim of this study is to find out the relationship between parental influence and physical education for physical activity of adolescents in Indonesia. **Method:** This cross-sectional study analyzed data from the 2015 Global School-based Student Health Survey (GSHS). Self-report questionnaire was collected from 11.124 students (13-17 years old) based on two-state cluster sample design. Parental influence (yes/no), physical education attendance (0-1, 2-3, 4-5 days a week), and obese status (yes/no) were independent variables. The data obtained were analyzed using multiple linear regression. **Result:** Among the total sample, 15.86% of students reported that they were physically active at least 60 minutes/day on 5 or more days. After controlling the sociodemographic factors (i.e., age and sex), physical activity was significantly associated with parental influence (AOR: 0.64; 95% CI: 0.57-0.71) and physical education attendance (AOR: 1.92; 95% CI:1.64-2.25). Obesity was not statistically associated with physical activity. **Conclusion:** These results imply that parents may implement structured physical activity times and support physical education for their children. Furthermore, physical education must be part of regular curriculum at all level of education to maintaining physical activity habits.

Keywords: Physical activity; parent influence; physical education

OC-111

Type 2 Diabetes Mellitus Patients' Experiences in Receiving Family Support: A Narrative Review

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Abstract

Background: Self-management behavior in T2DM patients is influenced by various factors, one of them is family support. however, the specific family support in order to be received by T2DM patients has never been studied. The aim of this study is to explore the experiences of T2DM patients in receiving family support. **Methods:** A narrative review is used by searching for literature in journal databases including PubMed, Scopus, ScienceDirect, ProQuest and Sage Pub. Several keywords "T2DM Experience" OR t2dm AND "family support" OR "Family supportive" AND "Self-Management". **Results and Discussions:** The results of the literature search follow the framework (1) availability of family support for T2DM patients (2) constraints in receiving family support for patients T2DM, and 3) the influence of family support in carrying out self-management behavior for T2DM patients. **Conclusions:** Family support is an important factor in self-management behavior for T2DM patients. There is a need to increase family's knowledge and skills as well as joint commitment in providing support to patients with T2DM.

Keywords: Patients' Experiences; Family Support; Self-Management; T2DM; Narrative Review

OC-112

Determining Factors Affecting Mother's Behavior in Stunting Prevention in the Madura Rural using the Theory of Planned Behavior

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Abstract

Background: Stunting is one of the cases of chronic malnutrition whose prevalence continues to increase from year to year in Indonesia. WHO for 2022 indicates that about 22% or 149.2 million young children have stunts. The WHO also placed Indonesia as the third country with the highest prevalence of stunts in Asia. The results of interviews and questionnaires by the Balita stunting family obtained low levels of rural family behavior in Madura in stunting prevention in terms of healthy clean lifestyle. This is what increases the prevalence of stunting in Balita. This study aims to develop a model of mother behavior in stunting prevention in children aged 0-24 months. **Methods:** Design observational analytical research with a cross sectional approach. The population in this study was mothers with children aged 0-24 months, totaling 215 respondents. These variables are behavioral belief, evaluation of behaviour outcomes, attitudes, demographics, perceived control, intentions and behavior of mothers in stunting prevention. The instrument used is a questionnaire adapting the theory of planned behavior. Analyze data using SEM approach with the help of smartPLS4. **Results and Discussions:** The results of the study have been obtained that that value for Cronbach alpha and C.R calculated above (>0.7), AVE value >0.50 thus has good validity and reliability. PLS-SEM results revealed that mother behavior in stunting prevention is directly influenced by attitudes, demographics and perceived control. Intention as an arrangement of action that when there is a suitable time and opportunity will be realized in the existence of action or behavior.

Keywords: Intention; behavior; stunting prevention

OC-113

Program-based Education to Prevent Diabetic Foot Ulcer on Patient with Diabetes: Systematic Review

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Abstract

Background: Diabetic foot ulcers (DFUs) pose a significant health burden, contributing to morbidity and mortality among individuals with diabetes. Program-based education has emerged as a crucial strategy in preventing DFUs and related complications. This systematic review aims to assess the effectiveness of program-based education interventions in preventing DFUs in patients with diabetes. **Methods:** A comprehensive search was conducted across major electronic databases, The following database were Pubmed, Science Direct, Proquest, and Web of Science. The method used in writing this article is a systematic review, using the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) checklist guidelines. The inclusion criteria were clinical and a randomized control trial published between 2018 to 2023. The primary outcome measure was the incidence of DFUs, while secondary outcomes included foot-related knowledge, self-care behaviors, and quality of life. **Results and Discussions:** The studies encompassed diverse educational programs, such as structured foot care education, and patient-centered self-management programs. In total, 18.433 articles regarding Program-based education to prevent Diabetic Foot Ulcer on patient with diabetes were found in this study. However, around 19 articles that were met with the criteria of this study. **Conclusions:** Program-based education is a promising approach for preventing DFUs in patients with diabetes. The evidence suggests that such interventions are effective in reducing DFU incidence, improved foot care behavior, enhancing knowledge and self-care practices, and improving quality of life. Future research should focus on standardizing program components and evaluating long-term outcomes to establish best practices in DFU prevention through education programs.

Keywords: Programmed-based Education; Diabetic Foot Ulcer; Diabetes Mellitus

OC-114

HIV Patient Medical Data Protection Policy: Public Information Disclosure and Data Privacy Viewpoints

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Abstract

Background: Digital technology is one of the tools that always closely coexists with human activities in the 21st century. Cloud computing technology is one of the things that plays a role in the health sector today, of course this has an impact on data management in health care facilities. There are many problems regarding leakage of personal data in Indonesia, one of which is leakage of medical data. The author tries to focus on issues regarding aspects of privacy and public information disclosure regarding HIV patient data. **Methods:** The research method in this study is a type of dogmatic research. The author uses a statutory approach and a conceptual approach. Regulations for medical data specifically regarding HIV patient data in Minister of Health Regulation Number 24 of 2022 which further regulate medical records. **Results and Discussions:** Legal aspects of personal data protection, HIV patient data and privacy and Public Information Disclosure have several legal aspects that need attention and scrutiny. Data protection provisions regarding patient data are listed in the Personal Data Protection Act. Medical records from HIV patients are included in a specific data category. Disclosure of specific data based on the PDP Law is very strict in its management and processing. **Conclusions:** The author sees that there are limitations in the aspect of public information disclosure regulated in the Public Information Disclosure Act. Medical records are information that can be exempted from being disclosed to the public for certain reasons and could endanger medical personnel

Keywords: Medical Records; Public Infromation; HIV/AIDS; Privacy

OC-115

Scoping Review of Midwives' Workload: A Comprehensive Overview

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Abstract

Background: Midwives play a crucial role in maternal and newborn care, yet their workload is a multifaceted and dynamic aspect of their profession. Understanding the factors that contribute to midwives' workload is essential for optimizing their performance, ensuring quality care, and promoting overall well-being. **Methods:** This scoping review aims to provide a comprehensive overview of the existing literature on midwives' workload. A systematic search of databases, including PubMed, CINAHL, and Scopus, was conducted to identify relevant studies published between 2013 and 2023. The search strategy included keywords related to midwives, workload, staffing, job satisfaction, and burnout. After screening and selection, a total of 15 studies were included for analysis. **Results and Discussions:** The review synthesizes key findings related to midwives' workload, highlighting various dimensions, including caseload, patient acuity, staffing levels, work environment, and job satisfaction. Factors contributing to increased workload among midwives encompass the rising complexity of maternal and neonatal cases, inadequate staffing, long working hours, and organizational challenges. Moreover, high workload levels have been linked to burnout, decreased job satisfaction, and potential adverse outcomes for both midwives and the women they care for. **Conclusions:** This scoping review provides a comprehensive overview of the existing literature on midwives' workload, emphasizing the multifaceted nature of this issue and its potential implications for midwifery practice and maternal health outcomes. The findings underscore the need for further research and policy initiatives to address workload-related challenges, promote midwife well-being, and ultimately enhance the quality of care provided to pregnant women and newborns.

Keywords: Midwives; workload; staffing

OC-116

Determinants of Basic Immunization Compliance to Children in The Covid-19 Pandemic Based on The Health Belief Model

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Abstract

Background: Immunisation of children is essential to reduce mortality and morbidity. The immunisation coverage rate for children in Indonesia is still low, especially during the COVID-19 pandemic. The study aimed to explain the determinants of basic immunisation compliance for children during the COVID-19 pandemic based on the Health Belief Model. **Methods:** This was a cross-sectional correlation study. The population were mothers with the latest children aged 9-24 months. Samples were 148 respondents taken by using the proportional cluster random sampling technique. The independent variables were perceived susceptibility, perceived severity, perceived benefit, perceived barrier, and cues to action. The dependent variable was the basic immunisation compliance of children. Data were collected by using a questionnaire. Data were then analysed using Spearman Rho with the level of significance $\alpha < 0.05$. **Results and Discussions:** There was a strong relationship between perceived susceptibility ($p = 0.000$; $r = 0.669$), perceived severity ($p = 0.000$; $r = 0.693$), perceived benefit ($p = 0.000$; $r = 0.650$), perceived barrier ($p = 0.000$; $r = 0.777$), cues to action ($p = 0.000$; $r = 0.712$) with adherence to basic immunisation for children during the COVID-19 pandemic. **Conclusions:** The higher the perceived susceptibility, perceived severity, perceived benefit, cues to action, and the lower the perceived barrier, the mother's compliance in providing basic immunisation increases. Community health nurses should develop a health promotion program to improve parental compliance in providing basic immunisations for children under five years.

Keywords: Compliance; immunization; children under five years old; health belief model; COVID-19

OC-117

Research Trends for Family Assistance Teams in Efforts to Reduce Stunting in Health Journals in Indonesia

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Abstract

Background: Stunting is a public health problem in Indonesia with a relatively high prevalence. Prevention is the Indonesian government's top priority. This can have short-term and long-term impacts on quality. Human resources and productivity of malnourished stunted children as they grow up. Therefore, prevention and early detection efforts are very necessary, especially by the stunting family support team. Previous research has identified complexities associated with the determinants of stunting. This research uses content analysis on a number of articles that have been published in health journals throughout Indonesia from 2017 to 2023, with the performance of the Family Assistance Team on Stunting as the main focus of the research. **Methods:** This study adheres to the principle of content analysis, namely focusing on findings from various studies that have been published in health journals in Indonesia. **Results and Discussions:** Each article is grouped into certain categories based on certain aspects that meet the specified categories. This decision is based on the information shared by the author in the abstract, methods, and discussion sections. Next, the data that has been collected is presented in the form of a bar chart. **Conclusions:** family support teams need to be given increased capacity to improve performance as family support teams in efforts to reduce stunting rates in Indonesia.

Keywords: Family support team; stunting; stunting prevention.

OC-118

The Influence of Hyperreality Social Media on Adolescent Food and Drink Choices: A Preliminary Study

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Abstract

Background: Social media has become an essential aspect of our lives, especially for adolescents, in this digital age. Platforms like Instagram, FaceBook, TikTok, and many more have created a hyperreal world that blurs the line between reality and fantasy. This can have significant consequences, particularly when it comes to the food and drink choices of adolescents. This initial study aims to examine how hyperreality in social media influences adolescents' food choices. **Methods:** The study used both surveys and focus group discussions to gather information from 20 adolescents aged 13-18. Participants had to be active users of social media platforms. **Results and Discussions:** The study's findings indicate that exposure to hyperreal social media content influences teenagers to make unhealthy food and drink choices, increasing their risk of developing non-communicable diseases. **Conclusions:** More research and effective measures are needed to counteract social media's negative effects on adolescent health.

Keywords: Adolescent; food and drink choices; hyperreality; social media

OC-119

Parental Education's Influence on Care Patterns of Children with ADHD Based on Financial Stability and Demographic Region in Indonesia

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Abstract

Background: Disparities or gaps in the care of children with Attention Deficit Hyperactivity Disorder (ADHD) against the background of financial stability and parental demographic areas were such a problem in Indonesia. The existence of quite specific differences in services and care was found because parents who do not have permanent jobs tend to let children with ADHD grow up without special attention. **Methods:** Using a longitudinal cohort design, parents of children with untreated ADHD were surveyed and interviewed regarding their knowledge and perceptions of ADHD and then followed for 3 to 6 months to determine whether they used services. For 3 to 6 months, researchers carried out interventions in the form of counseling and assistance regarding the care of ADHD children in the family. **Results and Discussions:** Of the 70 children, 33 (47.1%) did not attend mental health appointments and 51 (72.9%) did not use any treatment at 3 to 6 month follow-up. Logistic regression showed that increasing age and medication problems were associated with fewer follow-up mental health appointments ($P < 0.05$) and less treatment utilization ($P < 0.05$). The results of this study highlight the importance of addressing medication issues, when referring ADHD children with parents of different financial stability and demographic regions to mental health services. **Conclusions:** Health offerings are influenced by differences in demographic regions as well because demographic regions influence whether or not it is easy for parents to access healthcare or care offers from health professionals and facilities.

Keywords: Attention Deficit Hyperactivity Disorder; Care Patterns; Demographic Region; Financial Stability; Parental's Education

OC-120

Role of Community Mental Health Nurses to Handling Psychosocial Problem Related Domestic Violence in Indonesia

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Abstract

Background: Cases of domestic violence that occur in Indonesia have a significant impact on the psychosocial well-being of victims. Dealing with these psychosocial effects requires integration, particularly from community mental health nurses who work in health centers throughout Indonesia. The purpose of this article is to explain the role of community mental nurses in handling cases of domestic violence in Indonesia. **Methods:** This research method using a simple narrative literature review. For this study, researchers randomly searched for articles through various sources and databases, including ScienceDirect, neliti.com, and Google Scholar. **Results and Discussions:** The results indicate that community mental health nurses have three main domains of service. Firstly, they play a role in providing mental nursing care interventions to help victims of domestic violence overcome anxiety and depression. Additionally, community mental health nurses also advocate for further treatment by involving more institution. Lastly, they provide education to the community through health counseling and posyandu activities in order to prevent domestic violence. **Conclusions:** Integrated and comprehensive efforts are necessary to strengthen families and prevent domestic violence.

Keywords: Domestic violence; community mental health nurses

SCOPE – D:

MATERNAL, CHILD, ADOLESCENT AND REPRODUCTIVE HEALTH

OD-101

Impact of Adolescent Pregnancy on Antenatal Care (ANC): An Analysis of Demographic Health Survey (DHS) 2017 in Indonesia and Philippine

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Abstract

Background: Indonesia and Philippines are the three countries with high adolescent pregnancy in ASEAN. The existence of negative stigma from society and lack of quality in health facilities causes adolescent to be unable to access antenatal care. Even though the first adolescent pregnancy has a high complications and maternal death. This study investigates the relationship between adolescent pregnancy and ANC visits in Indonesia and the Philippines. **Methods:** Cross-country comparison method was used with cross sectional design using Demographic Health Survey (DHS) 2017 in Indonesia and Philippines. The sample was primiparous aged 15-49 years. A total of 4355 women in Indonesia and 1813 women in the Philippines were successfully analyzed using the chi-square test and logistic regression. **Results and Discussions:** In Indonesia, the prevalence of ANC visits < 8 times for adolescent mothers is 43.7%, while in the Philippines, it reaches 72.9%. In multivariable analysis, adolescent pregnancy in Indonesia (AOR 2.06; 95% CI 1.68-2.53) and adolescent pregnancy in the Philippines (AOR 1.72; 95% CI 1.20-2.47) had a higher risk of making ANC visits < 8 times compared to adult pregnancies. Factors influencing ANC visits in both countries are the mother's occupation, family economic status, place of residence, marital status, husband's education, information about pregnancy complications, and demographic region. **Conclusions:** Adolescent pregnancy was associated with ANC visits in Indonesia and the Philippines. Adolescent mothers' compliance with ANC visits can be achieved by improving the quality of youth-friendly health services by providing comprehensive services and collaborating with others parties.

Keywords: Adolescent pregnancy; ANC; DHS; Indonesia; Philippines

OD-102

A Descriptive Study on the Knowledge and Perception of Parent's Towards Their Children's Dietary Behavior

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Abstract

Background: Childhood obesity is a growing problem influenced by genetics and the environment. Studies consistently link dietary habits to obesity, including food choices, meal frequency, snacking patterns, and overall diet quality. Parenting practices, such as being a good role model and using moderate restrictions, significantly impact children's dietary behaviors. Therefore, the study aims to assess parental general nutrition knowledge and perception on dietary behavior among their children between the ages of four to six years old (preschool). **Methods:** The researcher used a quantitative descriptive study design with simple random sampling and it involved 390 respondents among parents. The study aimed to assess the parental general nutrition knowledge and feeding style towards their children's dietary behavior in Kuala Selangor, Malaysia. The parent's general nutrition knowledge and perception were assessed using a General Nutrition Knowledge Questionnaire**. Results and Discussions:** The results revealed that a significant portion of respondents (67.9%) demonstrated an intermediate level of general nutrition knowledge, indicating a moderate understanding of nutrition concepts. Another notable proportion (27.7%) scored higher marks, indicating a higher level of nutrition knowledge associated with healthier eating habits and lifestyle choices. However, a small percentage (4.4%) scored lower marks, suggesting a limited understanding of general nutrition knowledge. **Conclusions:** Parent nutrition knowledge perception is crucial in shaping children's dietary behavior. The findings of this study emphasize the importance of parents' understanding of nutrition concepts and their ability to translate that knowledge into healthy feeding practices.

Keywords: Knowledge; perception; dietary behaviors; parents; children.

OD-103

Health Literacy of Covid-19 Among Students and Visit to Health Clinic: A Mixed Method Study in Islamic Boarding School of Indonesia

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Abstract

Background: Students (Santri) in Islamic boarding school (pesantren) are still limited literacy of Covid-19. The aim of the study was to analyze health literacy of Covid-19 among Santri and their behavior to visit health clinic in Pesantren. **Methods**: Mixed method study was conducted among 348 *Santri* from October 2020 to May 2021, whereas the population size is 3.600 santris. A self-administered questionnaire was used to measure characteristic of participants, student's health literacy of Covid-19, and health clinic visit. Meanwhile, a semi-structured questionnaire was used to performed in depth interview among Santri. Kendalls Tau's test was used to analyze a quantitative data, while thematic analyses was used to analyze a qualitative data. Mixed method analyzed was performed between quantitative and qualitative data regarding Health Belief Model approach. **Results and Discussion**: The findings proved that the implementation of Covid-19 prevention behavior based on a measurable and precise HBM could reduce student morbidity rates by decreasing visits to the *pesantren's* clinic during the Covid-19 pandemic. The results of qualitative analysis through in-depth interviews with thematic methods showed that self-efficacy (SE) is a unity of Performance outcome, Verbal persuasion, Emotional arousal, and Observational learning. In this study, emotional arousal showed negative emotions because senior *santris* have been in uncomfortable situations for years. **Conclusion**: The conclusion of this study is that student's health literacy toward as preventing Covid-19 increases through understanding HBM. HBM implementation is important as a preventive promotive effort to overcome diseases in a community such as Islamic Boarding Schools.

Keywords: Covid-19; Students; Islamic boarding school; Preventive behavior; Health Believe Model

OD-104

The Influence of Sleep Quality of Pregnant Women on the Incident of Stunting: A Literature Review

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Abstract

Background: Lifestyle changes have a significant impact on stunting prevention in the modern era, including changes in sleep patterns. Sleep is an important activity for the body, during sleep the process of growth of body cells occurs due to the work of growth hormone produced. Irregular sleep patterns or sleep deprivation in pregnant women can lead to anemia and disturbances in the formation of growth hormone, thereby disrupting the growth and development of children, including the risk of stunting. **Objective:** This literature review aims to discuss the influence of sleep quality of pregnant women on the incidence of stunting. **Methods:** This research method is the results of a literature review. This study was obtained from 3 databases namely Scopus, Google schoolar, and articles from the mass media using exclusion and inclusion criteria. **Results and Discussions:** Pregnant women have poor sleep quality especially in the third trimester. Short or less sleep duration have a negative impact on the body. This is because the biological processes that occur during sleep will also occurence disturbances, including disturbed hemoglobin formation so that the levels become lower than normal standards. Sleep deprived pregnant women experience a lack of NREM sleep phase, where in this phase the growth process occurs because growth hormone is produced. **Conclusions:** There is an influence between the quality of sleep in pregnant women and the incidence of stunting. Pregnant women who sleep less will experience anemia and lack of the NREM sleep phase which is a risk factor for stunting babies.

Keywords: Pregnant women; sleep quality; stunting

OD-105

Study Protocol: A Mixed-Methods Study to Develop and Validate a Questionnaire of Self-management and Its Relationship with Quality of Life among Thalassemia Adolescents

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Abstract

Background: Self-management among Malaysian adolescents with thalassemia least published study due to the paucity of specific theoretical and culturally appropriate measures, leading to psychological effects and non-compliance with conventional treatment. This study aims to develop and validate a questionnaire to evaluate self-management among Malaysian adolescents with thalassemia. **Methods:** An exploratory mixed-method design is used in this study. We will recruit adolescents aged 10 to 19 with thalassemia and their caregivers from one of the thalassemia societies for a semi-structured interview in Phase I. Recruitment of participants ends once thematic saturation is reached. Coding and thematic analyses will be utilized to identify self-management domains and items. In Phase II, we will develop self-management instruments based on the domains and items generated from Phase I. Content validity will be reviewed by ten expert panels, and a pilot study will be tested with 42 conveniently selected adolescents aged 10 to 19. Four hundred twenty-two participants from eleven thalassemia NGOs will participate in conducting the psychometric evaluation of items self-management instruments. **Expected Outcome**: With the existence of these instruments, healthcare providers can gather crucial information regarding thalassemia adolescents' self-management may improve adolescents' adherence to treatment and lower serum ferritin, enhancing their health-related quality of life. **Trial registrations:** Ethical approval will be obtained from the UiTM Ethics Research Committee and the Malaysia Thalassemia Society.

Keywords: Thalassemia; Adolescents; Self-management; Questionnaire; Quality of Life

OD-106

The Relationship of Anxiety Level with the Menstruation Cycle in Midwifery S1 Students at Institute of Health Science Kuningan

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Abstract

Background: The menstrual cycle is the period from the first day of menstruation to the first day of the next menstruation. The menstrual cycle can be affected by a woman's psychological condition so that the menstrual cycle can go forward or backward. In West Java, the prevalence of primary amenorrhea is 5.3%, polymenorrhea is 10.5% and mixed disorders is 15.8%. The results of the preliminary study showed that as many as 8 out of 12 S1 Midwifery students at Institute of Health Science Kuningan experienced menstrual cycle irregularities. The study aimed to determine the relationship between anxiety levels and the menstrual cycle in Midwifery S1 students at Institute of Health Science Kuningan in 2022. **Methods:** This type of research is quantitative research with a correlational analytic approach. The population and sample in this study were all students of the Institute of Health Science Kuningan Midwifery study program with a total sampling technique of 54 respondents. The instruments used were the HARS questionnaire and the menstrual calendar. Data analysis was performed using Rank Spearman. **Results and Discussions:** The bivariate analysis of the two variables studied yielded ρ–value = 0.003 with moderate category strength in a positive direction (R = 0.4). **Conclusions:** There is a relationship between the level of anxiety and the menstrual cycle in S1 Midwifery students at Institute of Health Science Kuningan. There is a need for a good coping mechanism in dealing with every problem and a healthy lifestyle is needed to reduce anxiety so that the menstrual cycle is not disturbed.

Keywords: Anxiety Levels, Menstrual Cycle

OD-107

Factors that Influence the Occurrence of Stunting Among Child in Sumenep District

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Abstract

Background: Stunting has an impact on disruption of brain development. Intelligence, physical growth disorders and metabolic disorders in the body are short-term impacts of stunting. Decreased cognitive abilities, learning achievement and endurance are the long-term impacts of stunting. The aim of this research is to analyze the influence of maternal factors on the incidence of stunting among toddlers in Sumenep Regency. **Methods:** This type of research uses a quantitative design with a cross sectional research design. This type of research uses a quantitative design with a cross sectional research design. The population of this study was all mothers who had children under five with stunting totaling 78 people. The sample was 65 people using simple random sampling technique. The data analysis used was a logistic regression test. **Results and Discussions:** he research results showed that the majority of respondents (58.5%) did not comply with taking Fe tablets, the majority of respondents (53.8%) had a history of ANC examinations that were not fulfilled, the majority of respondents, (55.4%) experiencing anemia during pregnancy. The logistic regression test shows that there is an influence of adherence to consuming Fe tablets on the incidence of stunting with ($p<\alpha = 0.05$), there is an influence of ANC examination history on the incidence of stunting with a ($p <\alpha = 0.05$). **Conclusions:** Stunting incidents can occur due to a lack of education and counseling for pregnant women about the benefits of complying with taking Fe tablets, ANC checks, and preventing anemia, knowledge and awareness of mothers in reducing the incidence of stunting.

Keywords: Compliance with Fe Tablet Consumption, ANC Examination History, Anemia during Pregnancy, Stunting

OD-108

Factors Associated with Risk of Injury in Toddlers

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Abstract

Background: Toddlers are vulnerable to injury. They have curiosity and enjoy exploring the environment, but their understanding and ability to react to danger are limited. Toddlers actively move and start to enjoy playing outside. Toddlers are developing fine motor skills and start grasping, opening doors, or throwing objects around them. The research objective was to identify factors associated with the risk of injury in toddlers. **Method**: This type of *Quantitative research* with *a cross-sectional* approach. The location is in the sub-district of the Rajabasa Indah Health Center. Respondents were 30 parents of toddlers with the inclusion criteria of biological parents, who were selected using *the Simple-Random Sample* Technique. Data collection with interview method using a questionnaire. Univariate data analysis with proportion, and bivariate analysis to determine factors associated with injury risk in toddlers with *Chi-square*. **Results** and Discussions: Characteristics of toddlers: Male (46.6%), female 53.4%; The most child is 3rd child (40%); Nutritional status: less (23.4%) and Normal (73.3%), Development status: normality (93.34%), and deviations (6.66%). Type of injuries: Falls (30%), wounds (16.7%), burns (10%). All mothers of toddlers (100%) had good knowledge, but there was unfavorable environmental modification (10%). There is a significant relationship between gender, maternal education, growth disorders, and developmental disorders with the incidence of toddler injuries (p-value <0.05). There is no relationship between the number of children and the mother's occupation to the incidence of toddler injuries (p-value>0.05). **Conclusions**: Health promotion as *anticipatory guidance* is needed for families to prevent the risk of injuries to toddlers.

Keywords: Toddlers, Preventing the risk of injury

OD-109

Is the Body Mass Index a Useful Predictor of Exercise Capacity among Postpartum Women: A Cross-Sectional Study

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Abstract

Background: Body mass index (BMI) and level of exercise capacity during the postpartum period has a great impact on women's physical fitness and risks to comorbidities. Yet, the predictor of exercise capacity related to BMI is not well defined and understood. The study aimed to determine the level of exercise capacity and its predictor among postpartum women. **Methods:** A cross-sectional study was conducted at Kepala Batas Health Clinic, Pulau Pinang. A total of 134 postpartum women were recruited using a purposive sampling method. Descriptive analysis was performed on data pertaining to sociodemographic characteristics, anthropometric characteristics, and exercise capacity level as measured by the 2-Minutes Step Test (TMST). Predictors of exercise capacity among postpartum women were analysed using a stepwise linear regression test. **Results and Discussions:** Overall, the mean BMI was 24.7 ± 4.9 kg/m² and the mean score of exercise capacity based on TMST was 87.93 ± 9.89 heart beats per minute which was significantly poor ($p=.044$). The strongest significant predictor of below average exercise capacity among postpartum women is being overweight ($R^2=80.1\%$). The escalation of BMI is associated with an elevation in musculoskeletal pain, inflammation, and premature fatigue, which consequently hinders exercise participation and creates obstacles to engaging in physical activity. **Conclusions:** Postpartum women with an abnormal BMI should be provided with comprehensive intervention by a multidisciplinary team, particularly physiotherapy and dietitian. This intervention is crucial for preserving exercise capacity, which serves as a fundamental indicator of a woman's overall physical fitness.

Keywords: Body mass index; exercise capacity; postpartum; predictor; 2-minutes step test

OD-110

Ventilation in School and Student Health: A Systematic Literature Review

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Abstract

Background: Schools are the place where students spend a lot of time every day. Good ventilation is one of the points that can support the health of students and satisfaction rather than the goals of education. The research aims to analyze the ventilation at school and student health. **Methods:** Scopus and Web of Science were used to retrieve the paper about ventilation at school and student health. The search method used the keywords "ventilation" OR "Indoor air pollution" OR "Indoor environment quality" AND "School" AND "Student" OR "Children" AND "Health", from 2019- May 2023. **Results and Discussion:** The ventilation in schools researched are ventilation methods, insufficient or lack of ventilation, and the frequency of opening windows. The parameters of air quality that have been studied in classrooms are NO_2; PM 10; PM 2.5; PM 1; ozone, benzene, and CO_2. The disease was tiredness, bronchitis, asthma symptoms, infection risk, rhinitis, etc. **Conclusion:** Appropriate ventilation at school can reduce indoor air pollutants, thus related to student health. Ventilation in the classroom should be prioritized to fulfill the needs of health students.

Keywords: Health; school; student; ventilation

OD-112

The Influence of Hormonal Contraceptive Risk Factors on the Incidence of Preeclampsia

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Abstract

Background: Preeclampsia one of the causes of maternal death. The prevalence of preeclampsia cases quite high, namely 34.1%. One of the risk factors for preeclampsia is a history of using hormonal contraception. For this reason, we want to know the influence of hormonal contraceptive risk factors on the incidence of preeclampsia. **Methods:** This research is a case control analytical observational study. Samples were 24 cases and 24 controls. Independent variable is hormonal contraception, dependent variable is preeclampsia. Data was collected through medical records at the Pangkur Community Health Center, Ngawi Regency. Chi-square analysis test with a significance level of $P<0.05$. **Results and Discussions:** The results of this study indicated that exposure to hormonal birth control for the incidence of preeclampsia was 66.6%, while exposure to hormonal Contraception for non-preeclampsia events was 25%. From the results of the analysis with the Chi-Square test, the significance value of $P = 0.009$. **Conclusions:** It can be concluded that there is an influence of hormonal contraceptive risk factors on the incidence of preeclampsia. It's recommended that potential acceptors undergo counseling before making a decision by looking at the short-term and long-term effects.

Keywords: Hormonal; contraception; preeclampsia

OD-113

The Relation Between Social - Cultural Perspectives and Exclusive Breastfeeding Practice in Palembang City

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Abstract

Background: Exclusive breastfeeding in Indonesia still relatively low. According to the Indonesian Health Profile in 2018, the coverage of babies receiving breastfeeding was 68.74%. This condition influenced by the interaction of various socio-cultural, demographic, biological, pre and postnatal, and psychological factors. Although many studies have proven that exclusive breastfeeding will provide many benefits for babies and mother's health, but in reality, it didn't meet expectations. Advances in this modern era might also become one of the contributing factors to social, cultural, and economic changes, thus causing the decline in supports to breastfeeding moms. The aim of this study was to analyze the relationship between sociocultural perspectives and exclusive breastfeeding in Palembang. **Methods:** This study used cross-sectional method. This study conducted among several communities located in Palembang city, namely Ogan, Bugis, Arabic, Chinese, Javanese, Padang, Batak, etc. The samples of this study were 220 respondents of breastfeeding moms. Samples were collected using cluster random sampling technique. **Results and Discussions:** Only 70% respondents give exclusive breastfeeding. Giving exclusive breastfeeding by women with ≤ 2 number of children correlates significantly to exclusive breastfeeding to infants with p value 0.003. The support from the wife's mother/mother-in-law gives a significant correlation to exclusive breastfeeding practice to infants with p-value 0.001. A spouse's support at labor time gives a significant correlation to exclusive breastfeeding practice with p-value 0.004. **Conclusions:** This study showed that several variables have significant correlations with exclusive breastfeeding including the number of children, mother-in-law support, and partner support.

Keywords: Exclusive breastfeeding; Social; Cultural; Breastfeeding moms.

OD-114

Neonatal Thyroid-Stimulating Hormone Test as Prevention of Congenital Hypothyroidism in Newborn: Review Article

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Abstract

Congenital hypothyroidism is the most common cause of mental retardation in children, which is caused by a lack of thyroid hormone while still in the womb. Data from medical records at the RSCM and RSHS children's endocrine clinics in 2012-2013 shows that more than 70% of congenital hypothyroidism sufferers were detected after the age of 1 year so that patients had experienced permanent mental retardation, so early detection of congenital hypothyroidism is very important. According to the 2014 Minister of Health Decree, the Neonatal TSH examination is the most sensitive examination for detecting primary Congenital Hypothyroidism using the Disassociation Enhanced Lanthanide Fluoro Immuno Assays (DELFIA) method at the age of the baby 24 - 72 hours after birth. This examination is very important for the early detection of congenital hypothyroidism because the late diagnosis of Congenital Hypothyroidism can cause permanent intellectual instability in children with an average IQ value below 70. Neonatal TSH levels of less than 20 µU/mL are normal while Neonatal TSH levels are ≥ 20 µU /mL show a high result and must be confirmed by T4 and FT4 examination, if the neonate's TSH level is high accompanied by an increase in T4 or low FT4 levels, then a diagnosis of primary congenital hypothyroidism can be made

Keywords: Congenital hypothyroidism; Neonatal TSH; Delfia

OD-115

Exclusive Breastfeeding in South Sulawesi, Indonesia: What Factors are Related?

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Abstract

Background: Many benefits of exclusive breastfeeding (EBF) have been reported in previous studies worldwide. This study aimed to analyze the factors related to the achievement of EBF among toddlers in South Sulawesi. **Methods:** The analysis material for the study was the 2017 Indonesian Nutritional Status Monitoring, which was a cross-sectional survey. A total of 2,587 toddlers were analyzed. In addition to EBF as the dependent variable, the study also examined eight independent variables: regency/city, residence, maternal characteristics (age, marital, education, employment, toddler characteristics (age, sex). The study was analyzed using Binary Logistic Regression tests. **Results:** The results show regency/city is one of the predictors of EBF in South Sulawesi. Toddlers living in urban areas have a 0.713 times chance of EBF compared to toddlers residing in rural areas. The study also found maternal age to be a significant predictor of EBF in South Sulawesi. All maternal marital status has a lower probability than divorced/widowed mothers to have EBF under five. Mothers with primary and secondary education are more likely to have EBF under five than mothers with higher education. There is no difference between no-education mothers and mothers with higher education. Unemployed mothers are 1.192 times more likely than employed mothers to have EBF under five. The study also found toddler age to be one of the predictors of EBF. Boys are 1.026 times more likely than girls to experience EBF. **Conclusion:** The study concluded that the eight variables tested were related to EBF in South Sulawesi, Indonesia.

Keywords: Breastfeeding; exclusive breastfeeding; community nutrition; big data

OD-116

Determinant Factors of Antenatal Care for Pregnant Woman in Indonesia

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Abstract

Background: Detection of pregnancy and childbirth complications can basically be achieved through routine integrated pregnancy examination activities which are usually called Integrated Antenatal Care (ANC). Integrated ANC is carried out comprehensively and with quality targeting all pregnant women. **Methods:** The systematic review comes from databases from 2017 to 2023. This systematic review used single keywords, namely "Antenatal Care" and "Pregnant Woman". The results of the final selection left 15 articles. **Results and Discussions:** The behavior of pregnant women who do not comply with ANC is a strong reason for pregnancy complications which result in complications during childbirth and can cause the mother to die. In principle, many complications during pregnancy can be prevented if you control your pregnancy through ANC regularly and heed the advice of health workers. **Conclusions:** ANC is the spearhead of maternal and fetal health during pregnancy, the maternal health condition during pregnancy is a determining factor for the health of the mother and fetus in the future, such as the postpartum period and beyond.

Keywords: Antenatal Care, Pregnant Woman

OD-117

Effective Communication Methods in Preventing Adolescent Anemia: A Literature Review

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Abstract

Background: The incidence of anemia in adolescents has increased. Apart from increasing nutritional requirements, behavioral changes are needed to prevent anemia. Effective communication is very necessary to change human behavior to prevent adolescent anemia. This Systematic review aims to review effective communication methods to prevent anemia in adolescents **Methods:** Articles were searched from five electronic databases such as Science-direct, PubMed, Sage, ProQuest, and Springer. An online search for articles was carried out in August 2023 provided that articles were published from 2018 to 2023. Several keywords used for literature searching include "communication methods to prevent anemia" and "anemia prevention in adolescence". Data selection using PICOS and PRISMA flowchart got 11 articles. Data were narratively described. **Results and Discussions:** The result of this literature review showed that interpersonal communication proved knowledge, attitude, and behavior to prevent anemia. The volunteers were needed to give interpersonal communication with the adolescent to promote behavioral changes to prevent anemia. **Conclusions:** Interpersonal communication is an effective method to promote behavioral changes to increase iron folic acid use to reduce anemia.

Keywords: Communication; anemia; prevention; adolescent

OD-118

Community Involvement in Adolescent Pregnancy Prevention: A Literature Review

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Abstract

Background: Adolescent pregnancy is a widespread global concern that extends beyond the immediate health implications for both young mothers and their infants. It also significantly affects broader societal development issues. Adolescent pregnancy not only poses risks to the physical well-being of teenagers and their babies but also exerts notable social and economic consequences. In developing countries, approximately 21 million girls aged 15-19 become pregnant, with roughly 12 million of them proceeding to give birth. The behavior of adolescents, which can lead to unintended pregnancies is strongly influenced by the roles played by parents, peers, and the surrounding environment. **Objective:** To assess the influence of various societal factors, including parents, peers, schools, and community leaders in initiatives aimed at preventing adolescent pregnancy. **Methods:** The methodology involved a comprehensive database search across Scopus, PubMed, Science Direct, and Web of Sciences. The primary search terms used were 'community roles' and 'prevention of adolescent pregnancy'. There were seven articles obtained for analysis of the suitability of the topics, objectives, methods used, sample size, and results in each article. **Results and Discussions:** We conducted an analysis of seven articles, evaluating their relevance to the topic, alignment with research objectives, employed research methods, sample sizes, and the results presented in each article. **Conclusion:** The community plays a crucial role in supporting adolescent pregnancy prevention. This study explores the significance of the community, encompassing peers, parents, schools, and the environment as a key support and social control within the framework of adolescents' pregnancy prevention.

Keywords: Community involvement; prevention; adolescent pregnancy

OD-119

Toluene Toxicity on Blood Serum CYP2E1 Levels and Malondialdehyde Expression in Coronary Arteries

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Abstract

Background: Exposure to inhaled toluene induces cytochrome P450 2E1 (CYP2E1) has been widely associated with oxidative stress. Therefore, we investigated the relationship between toluene exposure, CYP2E1 levels, and oxidative stress with the biomarker malondialdehyde (MDA). **Methods:** This was a pure experimental study of 30 male Wistar rats, administered by 1.6 ml, 3.2 ml, 6.4 ml, and 12.8 ml toluene liquid and control, each consisting of 6 rats. Exposure was given by flowing toluene liquid into the chamber for 6 hours per day for 14 consecutive days. **Results and Discussion:** Exposure to inhaled toluene was associated with blood serum CYP2E1 levels and associated with coronary artery MDA expression. The ANCOVA test showed that the dose of inhaled toluene exposure and CYP2E1 levels affected MDA expression in the coronary arteries of Wistar rats. **Conclusions:** Exposure to inhaled toluene and CYP2E1 levels simultaneously influence coronary artery MDA expression

Keywords: Environmental pollution; toluene; malondialdehyde; coronary artery damage

OD-120

The Role of Religious Leaders in Adolescent Reproductive Health and Family Planning: A systematic review

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Abstract

Background: Reproductive health and family planning are important aspects of overall health and well-being. Improving access to family planning and reproductive health services globally can help prevent maternal deaths and reduce unwanted pregnancies. Religious leaders, such as imams and pastors, can influence demand and uptake of family planning services and commodities. This study aims to analyze articles related to the role of religious leaders in adolescent reproductive health and family planning. **Methods:** The method used in writing this article is a systematic review, using the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) checklist guidelines and searching several journal databases, including PubMed, Science Direct, Scopus, ProQuest, and Web of Science. In the initial stage of searching for journal articles, around 1435 articles were obtained from 2018 to 2023. The inclusion criteria used in this research include original articles, English language articles, and open access, while the exclusion criteria are articles in the form of reviews, systematic reviews, or meta-analysis. **Results and Discussions:** The results of the analysis show that involving religious leaders to support positive social norms is an important strategy to increase voluntary contraceptive use. According to research, exposure to family planning messages from religious leaders is significantly associated with higher use of modern contraception. **Conclusions:** This research concludes that religious leaders have the power to inhibit or facilitate the implementation of effective contraceptive methods to support family health.

Keywords: Religious leaders; Reproductive Health; Family Planning

OD-121

Unmet Need for Family Planning among Married Womenin Urban Areas of Jember Regency, East Java, Indonesia: Does Gender Equality Matter?

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Abstract

Unmet need for family planning was very important to assess in achieving universal access to sexual and reproductive health services. This study aims to assess the effect of gender relations on unmet need for family planning among married women in urban areas Jember Regency East Java. We conducted a cross-sectional study design. The study population was 21,133 married women in Sumbersari District, Jember Regency. The research sample was 92 people who were selected by simple random sampling technique. We collected data through structured interviews in June to July 2021. The data collected were analyzed using multiple logistic regression. The unmet need for family planning among married women in urban areas of Jember Regency was 33.7%. Married women who have 3-4 children and low education were more at risk of unmet need for family planning (OR 9.2; 95% CI 3.22-26.28 and OR 11.7; 95% CI 2.3-60, respectively). Married women who experience unequal gender relations with their husband were more at risk of unmet family planning (OR 10.3; 95% CI 2.97-35.55) as well as women who agree with the husband's beating of his wife (OR 8; 95% CI 2.53-25.80). Gender inequality was a determinant of the unmet need for family planning among married women living in urban areas. Therefore, it is necessary to improve women's empowerment programs to reduce unmet need family planning among married women.

Keywords: Family planning; gender relation; married women; unmet need

OD-122

Knowledge of Young Women About Breast Self Examination (BSE) to Detect Breast Cancer at SMAN 1 Magetan

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Abstract

Cancer is one of the causes of death in women. Breast cancer is the number two killer of women. An important step that must be taken by women, especially teenagers, to reduce the incidence of breast cancer in the final stages is by knowing about breast self-examination (BSE), which can detect breast cancer early. From the results of a preliminary study, it was found that 10 young women at SMA Negeri 1 Magetan found that 2 young women suffered from breast cancer because they did not know about breast self-examination (BSE). The aim of this research was to determine the knowledge of young women about breast self-examination (BSE) at SMA Negeri 1 Magetan. The type of research used was quantitative and descriptive research, the research sample was 100 female teenage students. The variable used in this research is a single variable. The instrument in this research uses a questionnaire. The results of this study show that in general the knowledge of young women about breast self-examination (BSE) for early detection of breast cancer at SMA Negeri 1 Magetan has sufficient knowledge, namely 69 (69%) of 100 young women. For this reason, young women at SMA Negeri 1 Magetan are expected to further increase their knowledge about SADARI.

Keywords: Breast cancer; knowledge; BSE; Young women; Teenage Student

OD-123

Levels of Premenopausal Anxiety in the Group of Women Given Lavender Aromatherapy and the Placebo Group

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Abstract

Background: Population aging is becoming a serious global issue. During the COVID-19 pandemic, women experienced higher levels of stress, depression, and anxiety, mainly due to hormonal changes during premenstrual and menopausal periods. To overcome this problem, premenopausal women are offered a non-pharmacological solution like aromatherapy with lavender essential oil. Lavender oil contains calming, sedative, antiseptic, analgesic, antispasmodic, and healing properties, which can help reduce anxiety. The aim of this study was to look at the level of premenopausal stress in the group given lavender aromatherapy and the placebo group. **Methods:** This research uses a *Quasy Experimental research design* with *Pre test and Post Test with control group design*. By analyzing the data using *Mann-Whitney*. The population in this study was premenopausal women. The sampling technique is *purposive sampling*. The total sample was 30 respondents, lavender aromatherapy is given for 15-20 minutes at each intervention and is carried out every 2 weeks' time. **Results and Discussions:** The statistical test results showed a p value of $0.00 < (0.05)$. This shows a significant difference between two groups, it is assumed that lavender aromatherapy has the effect of reducing anxiety because of the sedative and calming. **Conclusions:** There is a significant difference in the level of anxiety in premenopausal women before and after giving lavender aromatherapy so lavender aromatherapy has the effect of reducing anxiety in premenopausal women.

Keywords: Anxiety; Premenopausal; Lavender Aromatherapy

OD-124

Hemoglobin Levels in Anemia Pregnant Women with Given of Blood Supplement Tablets and Combination of Moringa Extract

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Abstract

Background: Anemia in pregnancy is a problem in almost all countries in the world. During pregnancy, anemia is one of the causes of maternal and neonatal emergencies which results in increased mortality and morbidity. Blood supplement tablets are one of the standard therapies that is a solution to the problem of anemia, one of which is in Indonesia. However, another alternative solution, namely herbal therapy with Moringa leaf extract, is given to reduce the incidence of anemia in pregnant women. **Methods**: This research design uses a *quasi experiment* with *pre and post control group design*. By analyzing the data using the *T-Test*. The population in this study was pregnant women with anemia. The sampling technique is *purposive sampling*. The total sample was 30 respondents consisting of 15 control groups and 15 treatment groups. The control group was only given blood-boosting tablets, while the treatment group was given blood-boosting therapy and 500 grams of moringa extract at a dose of 2 x 1 per day in capsule form for 14 days. **Result and Discussion:** The statistical test results showed a *p* value of $0.00 < (0.05)$. This shows a significant difference between the two control groups and the treatment group, which means that the combination of moringa extract and blood supplement tablets can increase hemoglobin levels in pregnant women with anemia. **Conclusion:** Giving moringa extract in combination with blood supplement tablets has been proven to increase hemoglobin in pregnant women when compared to giving blood supplement tablets only.

Keywords: Anemia; Pregnancy; Hemoglobin levels; Blood supplement tablets;Moringa extract

OD-125

Comparison of Back Pain in 3rd Trimester Pregnant Women Based on Parity and Age in the Complementary Herbal Compress Ball Therapy Group at PMB Yulis, Malang City

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Abstract

Background: Lower back pain in pregnancy causes discomfort. Preliminary study results from 15 pregnant women in the third trimester, there were 12 mothers who experienced lower back pain. Herbal compress ball therapy is a nonpharmacological that can reduce back pain. Study aims to determine the comparison of back pain in third trimester pregnant women based on parity and age in the complementary therapy. **Method:** research used a pre-experimental with one group pre test post test design. The sampling technique used was random sampling with 20 respondents. **Results and Discussion:** before being given therapy there were 20% of with multiparous and 5.2% of grandmultiparous with a pain scale of 37% experiencing back pain level 7, the results showed 12.7% of pregnant women >35 years with a pain scale, after being given the therapy, pregnant women aged >35 years fell to scale 2 at 5.3% and for multipara mothers it fell to scale 2 at 1.25%. The results of the Shapiro Wilk test show that α<0.05. The results of the level of low back pain before therapy obtained a pretest score with the lowest score of 5 and the highest score of 7 and the posttest results with the lowest score of 1 and the highest score of 5. The value of $\rho = 0.000 < \alpha$ (0.05), Z (- 3.953). **Conclusion:** Herbal Compress Ball can be an appropriate therapy to reduce the intensity of back pain in pregnant women in the third trimester, multiparous and grandemultiparous and pregnant women aged >35 years.

Keywords: Herbal Compress Ball; Pregnant Women; Parity; Age

OD-126

The Effect of Using Bellywrap on Changes in Low Back Pain Levels in Pregnant Women in Menganti District,, Gresik Regency

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Abstract

Background: Pregnant women during pregnancy usually often complain of discomfort, one of which is low back pain, low back pain that is not resolved causes an increase in the intensity of pain after the mother gives birth to her baby, so it is necessary to make non-pharmacological handling efforts with the use of bellywrap. The purpose of the study was to determine the effect of using bellywrap on changes in low back pain levels in pregnant women in Menganti District, Gresik Regency. **Methods:** The research method used one group pre-test and post-test design, a population of 55 pregnant women and a sample of 48 pregnant women, with simple random sampling techniques. Variable independent use of bellywrap and variable dependent changes in low back pain levels in pregnant women. The research instrument used a pain scale observation sheet (NRS). Data analysis using Wilcoxon signed rank test **Results and Discussions:** The results of the study found that almost all of them (85.4%) experienced changes in the level of low back pain with a mild category. The results of data analysis with the Wilcoxon test, it was found that $p (0.00) < \alpha (0.05)$ that there was an effect of using bellywrap on changes in low back pain levels in pregnant women in Hulaan Village Menganti District, Gresik Regency. **Conclusions:** The conclusion of this study is that the use of bellywrap can be used as one of the nonpharmacological therapies that can done by pregnant women in reducing low back pain.

Keywords: Bellywrap; Low Back Pain Level; Pregnant Women

OD-127

A Systematic Literature Review of the Correlation Between Knowledge, Self-Efficacy and Competence with Postpartum Depression in Women During Postpartum Period

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Abstract

Background: The global prevalence of postpartum depression ranges from 0.5% - 60.8%. Depression that occurs in the first weeks after birth negatively affects the relationship between mother and baby, and potentially affects the baby's long-term development and health. The worst impact is that this condition is a risk factor for suicidal ideation. Empowerment may be an effort to prevent and mitigate symptoms of postpartum depression. The components that form empowerment include knowledge, self-efficacy, and competence. This systematic review aims to identify the influence of knowledge, self-efficacy, and competence on the incidence of postpartum depression. **Methods:** We conducted a literature search in Google Scholar, Crossreff, Scopus, and Web of Science, published from 2013-2023, the number of articles obtained was 515, through PRISMA only 10 articles were analyzed. **Results and Discussions:** The majority of studies found that high maternal self-efficacy was associated with high maternal role competence and fewer postpartum depression symptoms. Women with poor depression literacy/knowledge tended to have a greater lack of emotional clarity, which negatively affected their symptom awareness and recognition of postpartum depression. **Conclusions:** the small body of work suggests that knowledge, self-efficacy, and competence correlation with postpartum depression. We recommend that women's depression literacy, self-efficacy, and emotional competence should be improved during the perinatal period as a prevention strategy.

Keywords: Competence; knowledge; postpartum depression; self-efficacy

OD-128

The Effect of Red Spinach Juice on Increasing Hemoglobin Levels in Third Trimester Pregnant Women with Anemia in the Panarung Public Health Center, Pahandut District, Palangka Raya City in 2020

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Abstract

Background: Anemia is caused by iron deficiency caused by physiological changes due to pregnancy that is aggravated by a lack of nutrients, vitamin B12, folic acid and vitamin C. The results of a preliminary study at PKM Panarung in 2021, there were 102 pregnant women with HB 8-11gr/dl, and there were 58 pregnant women in the third trimester who experienced anemia (56.8%). **Objective:** of the study was to determine the effect of red spinach juice plus Fe tablets on increasing HB levels in third trimester pregnant women with anemia. **Methods:** The research design was a quasi-experimental design with a pre-test and post-test design with a control group. The population is all pregnant women in the third trimester who are anemic in the PKM Panarung Palangka Raya working area as many as 58 people in 2021. The sampling technique uses purposive sampling. The sample is 44 people according to the inclusion and exclusion criteria. **Results:** The average HB for pregnant women in the intervention group before being given red spinach juice plus Fe tablets was 10.24 g/dl and after being given red spinach juice plus Fe tablets was 11.95 g/dl. Meanwhile, the average HB for pregnant women in the control group before being given Fe tablets was 10.41 g/dl and after being given Fe tablets was 11.58 g/dl. Bivariate analysis obtained a p-value of 0.020 (p<0.05). There is a significant effect between the consumption of red spinach juice plus Fe tablets on the increase in HB levels of pregnant women in the third trimester with anemia in the work area of the Panarung Health Center, Pahandut District, Palangka Raya City in 2022.

*Keywords***:** Hemoglobin; Fe Tablets; Pregnant Women; Red Spinach Juice

OD-129

The Meaningfulness of Village Shamans in Dayak Communities for the Adolescent Pregnancy Care: Indonesia

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ABSTRACT

Background: Pregnancy management should be done more intensively and optimally in adolescent pregnancy. Teen pregnancy care related to the health impact of teenage pregnancy will increase compared to healthy reproductive age. The objective of this study was to explore the use of village shamans in the treatment of adolescent pregnancy. **Methods**: This study uses a qualitative approach with semi-structured techniques. The sample selection of this study used a purposive sampling technique with a saturation approach. Data analysis uses thematic analysis and templates. **Results**: There are two phenomena found. First, adolescent pregnant women do not carry out pregnancy checks according to standards (frequency, quantity, helper, and place). Two, the use of village shamans is very high in helping with pregnancy check-ups. The condition of the Covid-19 pandemic is one of the reasons for the increase in visits by village shamans. Some other origins presented are mobility restrictions closure of health service facilities (independent practices of midwives and doctors, public health centers, and auxiliary health centers) over a long period. **Conclusion**: Pregnancy care carried out by adolescent pregnant women is not up to standard and Increased involvement of village shamans can help in early detection of health problems in adolescent pregnant women. The government should regulate the role of village shamans in dealing with teenage pregnancy.

*Keywords***:** Village Shaman; Pregnancy Care; Adolescent Pregnancy; Dayak Community

OD-130

Determinant of the Quality of Life of Mothers with Children with Disability: A Systematic Review

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Abstract

Background: Children with disabilities have limited capacity, which causes great dependence on those closest to them, especially their mothers. Mothers who care for children with disabilities experience various problems that affect their quality of life, such as physical health problems, psychological health problems, social relationships, and environmental problems. This research aims to identify factors that influence the quality of life of mothers who have children with disabilities. **Methods :** A systematic review was conducted using data from six electronic databases, including Scopus, Web of Science, Science Direct, EBSCOhost, ProQuest, and PubMed. To be eligible for inclusion, studies had to follow observational cross-sectional designs and qualify as original research from 2019 to 2023. The screening process, encompassing title screening, abstract screening, full-text screening, and data abstraction, was conducted to ensure an unbiased selection. The selected studies underwent a risk of bias assessment using the JBI Critical Appraisal Tool. 16 articles met the inclusion criteria and were included in the final analysis. **Results and discussions:** Mothers who have children with disabilities experience a decrease in quality of life in the physical, psychological, social, and environmental domains. The determinants that influence the decline in quality of life are age, education, employment, family income, resilience, severity of the condition of children with disabilities, emotional well-being, illness of caregivers, number of family members, relationship with children, social support, parenting patterns, and marital status. **Conclusions:** Supportive and therapeutic programs are essential to enhancing the quality of life for mothers who provide care to children with disabilities.

Keywords: Quality of life; mother; disability children

OD-131

Exploring the Impact of Family Support and Function on High-Risk Behavior Among Adolescents: A Comprehensive Study

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Abstract

Background: This study aims to investigate the impact of family support and family function on high-risk behavior in adolescents. **Methods:** study design was used Cross sectional and data was obtained through a survey of 195 teenagers with various sociodemographic characteristics such as gender, age, number of siblings, place of residence, parental status, parental education, parental occupation, family income, as well as various types of risky behavior such as smoking, consuming alcohol, using seat belts, etc. Completed a questionnaire that measured family support, and family function and health risk behavior. Family support were measured by family support scale and family function by APGAR family. **Results and Discussions:** The results of the study show that perceptions of family support and functioning are significantly related to the level of adolescent involvement in high-risk behavior. Adolescents who feel they have good family support and functioning are less likely to engage in high-risk behavior. In addition, gender, age and other sociodemographic factors also play a role in determining high-risk behavior. **Conclusions:** These findings underline the important role of the family in shaping adolescent behavior and emphasize the need for providing appropriate sexual information and education by parents. The implication of this research is that the role of parents in providing emotional support, information and supervision for their children can play an important role in reducing high-risk behavior in adolescents. This research provides deeper insight into the relationship between the family and high-risk behavior in adolescents, and provides a basis for the development of intervention programs aimed at improving the quality of family support and family functioning to reduce the risk of high-risk behavior in adolescents.

Keywords: Family support; Family function; High-risk behavior; Adolescents; Sociodemographic factors

OD-132

The Effect of Giving Zinc Tablets as a Companion Fe Tablets on Hemoglobin Levels in Female Adolescent

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Abstract

Background Increasing hemoglobin levels in adolescent girls can be influenced by a combination of Fe tablets with zinc. Zinc acts as part of the essential carbonic anhydrase enzyme found in red blood cells. It is needed for the activity of the superoxide dismutase enzyme, which functions to protect the surface of red blood cells from damage. This study aimed to determine the increase in hemoglobin levels in female adolescent. Methods:This research design uses the Chi-Square test and Fisher's Exact test. The population in this study was 160 female adolescents. They were divided into two groups, namely 80 control groups and 80 treatment groups. Results and Discussions Respondents' hemoglobin (HB) data before treatment was given to the intervention group. The distribution of hemoglobin data for respondents in the moderate HB category (8-10) was 68 people (85%) in the control group, and in the intervention group, there were 64 people (80%). Data on the distribution of hemoglobin (HB) of respondents after being given treatment in the intervention group. The distribution of hemoglobin data for respondents in the moderate HB category (8-10) was 56 people (70%) in the control group, and in the intervention group there were 34 people (42.5%). Meanwhile, the mild HB hemoglobin category (11-12) was found in 23 people (28.7%) in the control group and 42 people (52.5%) in the intervention group. Conclusions based on the mean ± standard deviation of hemoglobin in the control group (9.86 ± 1.09) and the intervention group (10.80 ± 1.47) also showed a significant difference ($p = 0.000 < 0.05$). It is recommended that young women better understand the risk of anemia by consuming ZINC tablets.

Keywords: Zinc tablets; Fe tablets; female adolescents

OD-133

Maternal and Child Health Using the Digitalization of the MCH Handbook Paciran Primary Health Care

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Abstract

Background: Puskesmas prioritize promotive and preventive efforts to achieve optimal public health status. In the current industrial era 4.0, almost all activities have been digitized, the puskesmas should also have started to be digitized. The data collection system at the Paciran Health Center still uses a manual system and patients often do not carry Maternal and Child Health (MCH) books. This research aims to accelerate the performance of the midwives at the Puskesmas so that it does not take up a lot of time and effort. And make it easier for the public so they don't have to carry the MCH handbook and see the examination results without opening the MCH handbook. **Methods:** The method of data collection used by the author in this research is observation, interviews and literature study. With the Java programming language with Netbeans IDE 8.0.2 as an editor and MySQL as a database. The result of this research is that the data collection process becomes faster and more regular. Then the process of making reports can also be faster and neater. And also the patients are helped because they can know their progress, even though they do not carry or do not have the MCH book. **Results and Discussions:** Mothers and Health workers who understand and use the kiaweb.org website are more effective in improving their Health status compared to printed books because the number of those who have experienced an improvement in their Health status through kiaweb.org (51.2%) while those who still use printed MCH books and their health status remain the same (48 .7%). A small percentage (16.6%) of mothers at the Paciran community health center cannot access kiaweb.org and do not have printed MCH books (20.8%). Based on the results of the chi square test, the P-Value value was 0.002, where p≤0.05, then e-books can be effective in improving the health status of mothers and children. The Odds Ratio (OR) value = (1.894-142.501) which means that using printed KIA books is 16 times risky, the mother does not understand the contents of the KIA book.**Conclusions:** With the construction of the kiaweb.org website, MCH data at community health centers has become better quality, integrated, and easier to monitor maternal and child health.

Keywords: Maternal and child book; digitalization; Java; primary health care; UML

OD-134

Early Initiation Breastfeeding Practices and Exclusive Breastfeeding: Literature Review from Various Geographical Contexts

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Abstract

Background: Early initiation of breastfeeding (EIBF) is an important practice in maternal and infant health services that has become the focus of global attention. EIBF refers to the act of giving breast milk to a baby immediately after birth, which is usually done within the first hour after birth. This practice has a significant impact on the health and well-being of mothers and babies, and has been recognized as one of the main interventions in efforts to improve child health and reduce infant mortality. This comprehensive literature review aims to identify differences and similarities in EIBF practices between countries and present relevant findings on the positive impact of EIBF on maternal and infant health. **Methods:** We conducted a systematic search of relevant research articles, selecting five studies for inclusion in this review. These studies cover the prevalence of EIBF, factors influencing it, and its positive impact. We analyzed the methodology, findings, and implications of each study to provide a comprehensive overview. **Results and Discussions:** The findings show variations in EIBFpractices between countries, while factors such as maternal education, access to health services, culture, and socio-economic factors play a role in determining EIBF practices. **Conclusions:** This literature shows the importance of a deep understanding of EIBF as an effort to improve maternal and infant health care. Future research recommendations include expanding research across diverse geographic contexts, emphasizing preventative and educational approaches to improve EIBF practice, and continued efforts to address remaining challenges in promoting EIBF.

Keywords: Early initiation of breastfeeding, exclusive breastfeeding

OD-135

Does Good Knowledge Influence the Disapproving Attitudes of Adolescent Girls Regarding Early Marriage? A Cross-Sectional Study

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Abstract

Background: Early marriage is a severe public health problem issue. This research aims to analyze the knowledge and attitudes of adolescent girls regarding early marriage and its causes. **Method:** A cross-sectional design was used for this study of 245 teenage girls. The inclusion criteria for this study were adolescent girls aged 15-18 years and unmarried. Data was collected using a questionnaire regarding sociodemographic data such as parent's education, parents' work, and family income, and a questionnaire on the knowledge and attitudes of adolescent girls regarding early marriage. The multivariable logistic regression model was used to analyze the relationship between teenage girls' knowledge and their attitudes regarding early marriage. **Result and Discussion:** Of 245 adolescent girls, most (54.29%) do not agree with early marriage. The results of the study showed that adolescent girls who had good knowledge were 0.51 times more likely to have an attitude of disapproval towards early marriage compared to adolescent girls who had less knowledge (AOR=0.51; 95% CI=0.29-0.86; p-value=0.01). Adolescent girls whose mothers are highly educated have a 0.4 times risk of disapproving attitudes towards early marriage compared to adolescent girls whose mothers have low education (AOR=0.4; 95% CI=0.24-0.68; p-value=0.001). **Conclusion:** Adolescent girls have a disapproving attitude towards early marriage. Good adolescent girls' knowledge and mother's education support teenage girls' disapproval of early marriage. The better the understanding of adolescent girls about early marriage, the less they agree with early marriage.

Keywords: Adolescent girls; Attitude; Early marriage; Knowledge

OD-136

Implementation of the Early Detection of Children's Growth and Development by Midwives

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Abstract

Background: In Indonesia, the SDIDTK (Stimulation of Early Detection and Intervention of Growth and Development) program aims to monitor children's growth and development. However, in 2021, only 57.6% of toddlers received this service nationwide, with better coverage in East Java (61.8%) and Magetan Regency (89.32%). This study analyzes midwives' application of early detection services in Magetan Regency. **Methods:** Using a mixed-method approach, the research first quantitatively assessed the application of early detection by surveying 53 randomly selected village midwives and 8 participants for the qualitative stage. **Results and Discussion:** About 43.9% of midwives falsely reported providing SDIDTK services even when they only monitored growth. Cadres played a crucial role in growth detection, with high rates for weight (100%), height (100%), and head circumference (87%). This study also examined developmental detection using KPSP (Developmental Pre-Screening Questionnaire), involving cadres in 60.4% of cases. Vision detection with cadre assistance was at 37.7%, and hearing detection with cadre support stood at 30.2%. Challenges in implementing developmental detection included workloads, time, and human resources. Growth detection was prioritized due to stunting cases, while developmental detection faced issues like inadequate supervision and non-midwives' involvement. **Conclusion:** The SDIDTK program's implementation remains suboptimal. Through the Indonesian Midwife Association organizations, midwives must improve cross-sector collaboration, empower communities, and set standards for community midwifery care. This study emphasizes the necessity of upgrading early childhood development programs in Magetan and comparable areas.

Keywords: Early Detection, Children's Growth, Children's Development, Midwives

OD-137

Reproductive Health of Female Students in Islamic Boarding School Culture

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Abstract

Reproductive health is the complete physical, mental, and social well-being concerning all aspects of the reproductive system, functions, and processes, not just the absence of disease or disability. Adolescent reproductive health is a state of well-being that pertains to the reproductive system, functions, and processes of adolescents. Being healthy does not solely mean being free from illness or disability but also being mentally and socially culturally healthy. Issues in adolescent reproductive health include unprotected sex, early marriage and pregnancy, unintended pregnancies, sexually transmitted infections, and others. Most adolescents attend school, making it one of the places where they receive education, including reproductive health education, sexuality, and health behavior. One educational model in Indonesia is the Islamic boarding school (pondok pesantren), which emphasizes religious education and is supported by dormitories as living quarters. Adolescents living in boarding schools are referred to as "santri," and they interact with their peers 24 hours a day within the boarding school community. Boarding schools promote a simple way of life, instill self-reliance, encourage discipline, and foster cooperation. However, health issues in boarding schools still require attention from various stakeholders, including access to health services, healthy behaviors, and environmental health that can affect their reproductive health. Female santri in boarding schools acquire knowledge about reproductive health from classical texts such as "Adabul Mar'ah," "Risalatul Mahid," "Kitabun Nikah," "Qurratul Uyun," "Uqud al lujjayn," and others. Reproductive health education does exist in boarding schools, but it tends to follow a normative model

Keywords: Adolescent Reproductive Health; Islamic Boarding School

OD-138
Effectiveness of Training for Cadres in Stunting Prevention Efforts in the Bangkalan District Area

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Abstract

Background: Stunting is often referred to as dwarfism or short stature. According to the WHO, stunting is the result of inadequate child nutrition due to continuous infections during the first 1,000 days of life. Bangkalan is one of the regions with a high prevalence of stunting. Stunting prevention efforts can utilize promotion and training through existing cadres in Integrated Health Posts (Posyandu). The research aims to analyze the impact of training on cadres in stunting prevention. **Method**: This study is a follow-up research after the first phase of exploring variables and developing modules. In this research, a module was implemented using a quasi-experimental method with a pretest-posttest design. The research subjects were cadres from Integrated Health Posts (Posyandu) in the Bangkalan District, totaling 100 individuals. **Results and Discussion**: Training for cadres has a significant effect on increasing knowledge about stunting prevention with a p-value of <0.05. A social approach can also be used to enhance knowledge and information about stunting prevention through cadre training. **Conclusion and Recommendations**: Socialization should be conducted before the module is implemented in training. This research showed an increase in cadre knowledge before and after receiving training using the module.

Keywords: Training; Cadres; Stunting

OD-139

Maternal Empowerment in Decision Making for Birth Preparedness and Complication Readiness: A Literature Review

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Abstract

Background: Birth preparedness and Complication Readiness (BPACR) is a comprehensive strategy to ensure safer pregnancy. BPACR is an important instrument for the empowerment and autonomy of all women decision-making during childbirth. Women empowerment increases their decision-making authority significantly and positively can improve maternal and child health outcomes and is a viable strategy to improve maternal and child health This study aims to describe maternal empowerment in decision making for birth preparedness and complication readiness. **Methods:** Literature is obtained from online journal databases, namely PubMed, Google Scholar, and ScienceDirect, and other related sources, systematically from 2019 to 2023. **Results and Discussions:** Eighteen articles on maternal empowerment in decision-making for birth preparedness and complication readiness were described by demographic characteristics, scope, and impact. Barriers and facilitators for three categories include process, communication, information and education, health outcome, psychological, and satisfaction. **Conclusions:** Existing literature identifies that maternal empowerment in decision making through various interventions that involve mothers in decision making with the assistance of midwifery proffesional, partners, family and community based support can improve outcomes for matenal health, however this review shows that the self-empowerment of pregnant women in BPACR decision making is still limited.

Keywords: Maternal empowerment; Decision making; Birth preparedness; Complication readiness

SCOPE – E:

ENVIRONMENTAL PUBLIC HEALTH,

OCCUPATIONAL HEALTH AND SAFETY

OE-101

Heavy Metals in Fish Knowledge, Attitudes and Practices among Consumers in Selangor, Malaysia

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Abstract

Background: The presence of heavy metals in aquatic environment leads to the accumulation of metal toxicity in fish and poses a potential threat to public health. Consumer knowledge, attitudes and practices play important roles in ensuring food safety. This study aimed to assess knowledge, attitudes and practices towards heavy metals in fish among consumers in Selangor and their associations. **Methods:** One hundred (100) consumers from three different districts in Selangor answered a questionnaire that consisted of four parts: demography, consumers' knowledge, attitudes and practices towards heavy metals in fish. Consumers are those who consume fish and above 18 years old. A cross-sectional online survey using a validated self-administered questionnaire was employed to collect data from a sample of adults aged 18 years and above. The sampling technique used the snowball technique. The questionnaire was analysed using SPSS (version 21), descriptive and Spearman's correlation analysis. **Results and Discussions:** Overall, the findings indicated adequate knowledge (57%) and satisfactory attitudes (52%), but poor practices (26%) towards heavy metals in fish. The study results indicated moderately positive correlations but significant differences between consumers' knowledge and practices (r= 0.410, p= <0.001), and attitudes and practices (r= 0.314, p= <0.001). **Conclusions:** These findings suggest that consumer knowledge is essential for influencing attitudes and achieving significant changes in practices. In order to maintain a healthy society, this study also confirms the importance of understanding heavy metals to increase consumer awareness.

Keywords: Consumer; fish; heavy metal; knowledge, attitudes and practices (KAP)

OE-103

Literature Review: Surveillance Analysis of Risk Factors Relapse Mental Disorders

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Abstract

Background: Psychosis is a psychiatric disorder characterized by hallucinations and delusions with schizophrenia spectrum disorders and mood disorders such as depression and bipolar. Treatment for psychosis sufferers lasts a long time or even a lifetime cause re-admission and hospitalization. Surveillance is used to monitor trends in mental disorders to predict the time of recurrence so that the severity of the disorder can be prevented as early as possible. **Methods:** Search for articles via Google Scholar, PubMed, NIHR and ResearchGate, aims to surveillance mental psychosis. There were 10 articles obtained and 6 articles analyzed based on suitability of purpose and topic. **Results and Discussions:** Surveillance variables consist of risk factors, protective factors and triggers factors as well as mental health indicators. The impact is socio-economic, disability, and the risk of suicide / self-harm. Surveillance in the mental health facilities and public health.**Conclusions:** It is recommended to include surveillance activities in community-based psychosocial rehabilitation programs, so that recording signs or symptoms of relapse can be carried out routinely.

Keywords: Surveillance; mental health; psychosis; relapse; mental disorders

OE-105

Path Analysis of the Relationship between Diarrhea, Climate and Environmental Variables in Province of West Nusa Tenggara

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Abstract

Background: Diarrhea disease is still an important sources of morbidity and mortality, particularly in Province of West Nusa Tenggara (NTB). In general, there are some factors contributing to the incidence of diarrhea. This study aimed to examine the role of climate, economic status, demographic, and water, sanitation, hygiene (WASH) factors, whether they have a direct or indirect influence on diarrhea. **Methods:** This study used an ecological study design that focused on the characteristics of population groups. The unit of analysis was districts/cities. We used data on diarrhea cases in the area from 2017-2020, as well as other variables in the same period. The dependent variable was the number of diarrhea cases per month and the independent variables included average temperature, economic status, population density, access to WASH. A total of 480 records were analyzed descriptively and using path analysis to determine relationships between the variables studied. **Results and Discussions:** There was an influence between average temperature on diarrhea and statistically significant both directly (b=0.127; p=0.013; 95% CI=0.03 to 0,23) and indirectly through WASH (water-sanitation: b=0.311; p<0.001; 95% CI=0.24 to 0,38 and hygiene: b=0.529; p<0.001; 95% CI=0.47 to 0,59). Economic status, population density had a significant indirect effect on diarrhea, whereas WASH had a significant direct effect on diarrhea. The model also showed that water-sanitation had a positive and significant correlation to hygiene. **Conclusions:** Diarrhea is directly influenced by the average local temperature and access to WASH. Indirectly, the average temperature plays a role together with population density and economic status.

Keywords: Climate; diarrhea; path analysis; WASH

OE-106

Association Between Pesticide Usage and Contact Dermatitis in Agricultural Workers

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Abstract

Background: Analysis of hospital records from Ubon Ratchathani province spanning 2016 to 2021 reveals 1,533 documented cases of contact dermatitis. Drawing from an extensive literature review, several factors have been identified as potential contributors to contact dermatitis among farmers who are exposed to pesticides. The objective of this research was to examine the factors related to contact dermatitis among farmers who use pesticides. **Methods:** The study employed a retrospective design, utilizing hospital-based data from a sample of 150 individuals collected between July 2020 and July 2021. The data were analyzed using frequency distribution, percentage, mean, standard deviation, minimum, and binary logistic regression analysis. **Results and Discussions:** Among the sample of 150 individuals, the majority were males (57.3%), with a diagnosis of contact dermatitis (33.3%). Additionally, a significant proportion of males were diagnosed with contact dermatitis (64.0%). The mean age of individuals with contact dermatitis was 34.12 years (S.D. = 6.125). Several factors were found to be significantly associated with contact dermatitis, including disease status (OR = 3.95, 95% CI = 1.92-8.13), education (OR = 2.66, 95% CI = 1.32-5.36), attitude towards pesticide use (OR = 2.81, 95% CI = 1.32-5.99), and pesticide usage practices (OR = 3.14, 95% CI = 1.42-6.98). These findings provide essential information for health teams to promote suitable pesticide use practices and attitudes among farmers, with the aim of reducing the occurrence of contact dermatitis in the future. **Conclusions:** Pesticide usage practices were significantly associated with contact dermatitis.

Keywords: Chemical pesticides; dermatitis; farmers

OE-107

Environmental Risk Determinants Associated with Stunting in Children in Tasikmalaya, Indonesia: A Public Health Surveillance-Based Retrospective Study

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Abstract

Background: Globally, by 2020, 155 million children under the age of five will be stunted. Indonesia is one of the countries contributing to the third highest incidence of stunting in Southeast Asia, reaching 36.4%. West Java Province has a stunting prevalence of 31.2% with Tasikmalaya Regency ranked 5th with a prevalence of 24.4%. Cipatujah Public Health Center has the 4th highest prevalence in Tasikmalaya Regency at 21.4%. The purpose of this study was to analyze the environmental risk determinants of stunting in the Cipatujah Public Health Center based on Surveillance data. **Methods:** The research design was Retrospective Cohort. The study sample was 257 respondents who met the inclusion criteria taken by total sampling. The research instrument used was a checklist sheet. The statistical analysis used was Chi-square. **Results and Discussions:** The risk of family latrines and the incidence of stunting (p-value=0.001, RR = 5.407, CI 95%=2.784-10.50). Water quality (p-value= 0.001, RR= 4.688, CI = 95% 2.513-8.745). **Conclusions:** There is a relationship between environmental risk determinants and the incidence of stunting in children aged 24 months in the Cipatujah Health Center Working Area, Tasikmalaya Regency in 2023. For families, it is necessary to improve basic sanitation that meets the requirements of the household to create the application of clean and healthy living behavior.

Keywords: Stunting; Environmental Risk; Family Latrine Risk Level; Water Quality

OE-108

Unsafe Actions Cause Analysis with Human Factors Analysis and Classification Systems (HFACS)

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Abstract

Background: Most accidents occur during the hotel construction project by PT "X" Surabaya due to unsafe actions (51.7%). An analysis of the factors that cause the unsafe action has not been undertaken. HFACS method describes in detail the factor that causes unsafe action by looking at the mistakes made by supervisors and management. The research problem was what factors caused unsafe action in the hotel construction project by PT "X" Surabaya with the *Human Factors Analysis and Classification System* (HFACS) approach. **Methods:** This was a cross-sectional analytic survey research. The research design used quantitative and qualitative approaches. **Results and Discussions:** Preconditions for unsafe action variables that influenced the occurrence of unsafe action were the type of personality, worker's motivation, workers' readiness, knowledge level, and Health and Safety training. The unsafe supervision performed by the foreman was operation planning which was performed less optimally. Organizational influences to consider were the organization's operational processes. HFACS analysis showed that unsafe action on labor could occur when organizational influences in the organization's operational processes in the hotel construction project of PT "X" Surabaya did not run optimally. It brought an impact on the unsafe supervision which led to the occurrence of unsafe action. **Conclusion:** the company must pay attention to the factors that cause unsafe action at each layer of HFACS. the company must place more emphasis on the socialization factor of procedure guidelines to workers and supervision must be more intense.

Keywords: HFACS; unsafe action; accident; construction project

OE-109

Potential of *Cymbopogan nardus* Extract Inhibut the Growth of *Candida albicans*, *Staphilococcus aureus*, and *Escherichia coli* a In Vitro Study

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Abstract

Background: To examine the effectiveness of *the Cymbopogon nardus* extract against *E.coli*, *Staphylococcus aureus*, and *Candida albicans* in vitro, a laboratory experiment was conducted. *Cymbopogon Nardus* contains dicarboxylic acids, phenols, steroid saponins, flavonoids, saponins, coumarins, homoisoflavanone, and fatty acids. The goal to be achieved is to analyze the extrak ability of *Cymbopogon nardus* extract in inhibiting the growth of *E. coli* bacteria, *Staphilococcus aureus* and *Candida albicans* fungi. **Methods:** By employing the maceration method and 96% ethanol, antibacterial testing of *the Cymbopogon nardus* extract was performed at concentrations of 5%, 10%, 20%, and 40% to investigate the development of *E.coli*, *Staphilococcus aureus*, and *Candida albicans*. **Result and Discussions:** ethanol extract of the *Cymbopogon nardus* 5- 40% inhibited the growth of *E. coli* with average inhibition zone diameters of 5.22 mm, 6.32 mm, 6, 7, and 6.63 mm, respectively. *Cympobogon nardus* can inhibition *Staphylococcus aureus* bacteria with an average diameter of the inhibition zone of 7.55 mm and 6.2 mm, respectively, could be inhibited by concentrations of 20% and 40%. Cymbopoghon ethanol extract at concentrations of 5% and 40% did not result in an inhibition zone on *Candida albicans* growth; however, doses of 10% and 20% might, with the average diameter of the inhibition zone being 6.13 mm and 6.6 mm, respectively. **Conclusion:** *Cymbopogon nardus* inhibits the growth of *E.coli* bacteria, *Staphylococcus aureus*, and *Candida albicans* at low and high concentrations. The suggestion in this study is trial modifies the *Cymbopogon nardus* extract with other solutions that can also absorb air pollutants.

Keywords: *Escherichia coli, Cymbopogon nardus; Staphilococcus aureus;* Potential Inhibition

OE-111

The Influence of The Use of Fogging to Control Dengue Hemorrhagic Fever (DHF) on Health Impairments of Health Workers: A Scoping Review

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Abstract

Background: Fogging is a method used to fight dengue fever by spraying a chemical insecticide that kills adult Aedes aegypti mosquitoes. These mosquitoes are responsible for spreading the disease. However, too much fogging can be harmful to people because the chemicals are toxic and don't last long in the environment. This research looks at health problems that can happen to fogging workers when they are exposed to these insecticides. **Methods:** We did a Scoping review to find and summarize existing research on using insecticides for fogging to control dengue fever. We collected data from the past ten years from sources like scientific databases. In total, we studied 31 scientific articles. **Results and Discussions:** Our study found that many fogging workers used a chemical called temephos for fogging. When they used too much of it and didn't wear protective gear, they were at risk of being exposed to the insecticide. Exposure to these chemicals could lead to various health issues, like anemia, high blood pressure, diabetes, nervous system problems, and specific problems for women, such as thyroid issues and reproductive problems. It also affected men with fertility issues. People exposed to the insecticides had physical problems like tremors and felt unwell with symptoms like skin irritation, dizziness, nausea, coughing, headaches, and trouble breathing. **Conclusion:** While fogging is important to control dengue fever, it's crucial to protect fogging workers by making sure they use the right safety gear. This will help reduce the health risks linked to exposure to these insecticides.

Keywords: Insecticide; fogging; Dengue hemorrhagic fever; health workers; health problems

OE-112

Food Waste Treatment and the Effect of Composting on The Gambia's Carbon Footprint

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Abstract

Background: In The Gambia, about 35% of the food produced is wasted, making it the most significant contributor to municipal solid waste. Food waste presents unique challenges for conventional waste treatment techniques because of its high moisture content, oils, and changeable composition. Food waste is disposed of in landfills, significantly raising the carbon footprint and producing greenhouse gases. **Methods:** Two treatment methods successfully utilized to treat and manage leftover foods are anaerobic digestion and composting. This study provides a brief overview of the effects of composting food waste on carbon footprint in The Gambia, paving the path for future research on the benefits of composting along with other food waste treatment methods, including anaerobic digestion. **Results and Discussions:** It determined The Gambia's altered carbon footprint due to diverting food waste using carbon calculation over lifecycle version 2 (CCaLC2) software. Food waste composting lowered The Gambia's overall carbon footprint by 2.58 and 2.53 megatons of CO_2 in 2019 and 2020, which accounted for roughly 20% and 22% of the country's total municipal solid waste footprint, respectively. **Conclusions:** The carbon footprint statistics were compared to the data from Senegal, Nigeria, Guinea, and Sierra Leone to demonstrate the significant efficacy of composting in The Gambia..

Keywords: Food waste; carbon footprint; waste treatment;; composting;; greenhouse gases;.

OE-113

Correlation of Personal Factors with Unsafe Action of Health Worker in Nine Puskesmas, Kediri City

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Abstract

Background: The standard action in PUSKESMAS still high and often ignored, this is very dangerous if left unchecked it will have an impact on the safety and health of health workers, patients and patiens families. The purpose of this study is to anlize the correlation personal factors and unsafe actions of health worker in 9 PUSKESMAS Kediri City. The populatio of this study was health workers totaling 410 health worker. Variable in this study were unsafe action and personala factors included the level of knowledge and work fatique. **Methods:** This research is analytical with cross secional design. The number of respondents was 410 health workers, using total sampling technique. Data were collected through observations and interviews on substandard actions. Statistical analysis of the correlation between personal factors and unsafe action used logistic regression because the dependent variables categorical. **Results and Discussions:** The result showed correlation between fatique and unsafe action, the more fatique health workers, the higher unsafe action. The result showed correlation between knowledge of health workers and unsafe action, the higher the knowledge of health workers, the lowe unsafe action. **Conclusions:** There is a correlation between personal factors (knowledge, fatigue) and unsafe actions and strong correlation. It is recommended to have a safety talk during the morning on a regular basis to increase health vigilance when going to work.

Keywords: PUSKESMAS; Unsafe action; Health worker; Fatique; Knowledge

OE-115

Waste Management, Community Participation and Local Wisdom in Environmentally Based Disease Control in Coastal Areas Through The *Theory Of Planned Behavior* Approach: A Systematic Review

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Abstract

Background: Health development is an important aspect of national development because it touches all aspects of human life. Disease events that occur in a community in a region are the final stage of a process dynamics of interactive relationships between humans and environmental components. Solid waste management practices are a concern for public health and environmental protection. The research objective is to analyze articles related to waste management, community participation and local wisdom in environmental-based disease control. **Methods:** The method used in writing this article is a systematic review, using the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) checklist guidelines and searching several journal databases including PubMed, ScienceDirect, Scopus, and ProQuest. In the initial stage of searching for journal articles, around 443 articles were obtained from 2018 to 2023. The inclusion criteria used in this research included original articles, English language articles, and open access, while the exclusion criteria were articles in the form of reviews, systematic review, or meta-analysis. **Results and Discussions:** The results of the analysis show that waste management is closely related to environmental and behavioral factors. Humans with civilization, culture, behavior and employment status can building an environment in such a way that it creates the potential danger of disease. **Conclusions:** Waste management policies and strategies carried out through socio-economic and cultural development of the community to realize community welfare based on local wisdom indirectly have a close relationship in controlling environmental-based diseases.

Keywords: Waste management; Community Participation; Local wisdom; Environmental-based diseases

OE-116

Determinants of Waste-Sorting Practice of Rural Households

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Abstract

Background: Household waste across the globe is increasing, including in the rural area. Rural households in Indonesia prefer open dumping and open burning than start recycling their waste. This study investigates the determinants of waste-sorting practice as a vital part of recycling practice among the rural household. **Methods:** We surveyed 2,459 households living in Bojonegoro district where the largest rural areas of East Java located. We used data on education, income, healthy lifestyle, the 3R campaign outreach, the availability of final disposal site and the waste circular system as the predictors of waste-sorting practice. We used multiple linear regression analysis to model the predictors of this behavior. **Results and Discussions:** Even though most of the rural households are well-educated and have a moderate healthy lifestyle, only small number of rural households sorted their domestic waste. The socio-economic condition and household access to final disposal site did not determine their habit in waste-sorting. The waste-sorting behavior was found to relate to the availability of waste circular system (OR 0,157; p<0,01) and the campaign of 3R practice in the community (OR 0,289; p<0,01). **Conclusions:** Amid the waste-sorting practice among rural households is pathetic, there is still possibility to change this behavior. Providing a proper infrastructure of waste circular system and familiarizing 3R practice could help improving the waste-sort behavior among rural households.

Keywords: Determinants; Household Waste; Waste-sorting; Rural Households

OE-117

Climatic Factors Influencing Malaria in Banjar District, Indonesia

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Abstract

Background: Malaria in Indonesia is a serious health problem and it is important to understand the emergence of this disease. Climatic factors play an important role in malaria prevention. Understanding the characteristics of the disease will benefit the health monitoring system and provide ways to address this problem. This study aims to determine the effect of climate on malaria incidence in Banjar District, Indonesia. **Methods:** Malaria case records were obtained from the Banjar District Health Office, South Kalimantan Province. Climate data from the Meteorology, Climatology, and Geophysics Agency of South Kalimantan Province. While Population data was obtained from the Central Bureau of Statistics (BPS). Data for the period 2015 to 2022 was used to develop a model using multivariable linear regression. The forcasting model is used to the number of malaria cases trend. **Results and Discussions:** The forcasting results show that malaria trends occur in the months of November-January and April-May every year. There is an influence of rainfall, maximum wind speed and average wind speed on malaria incidence. **Conclusions:** Climate data and annual malaria incidence can be used by health authorities in predicting the occurrence of dengue fever every year to be able to carry out control interventions before the transmission season.

Keywords: Malaria; rainfall; wind speed; forecasting

OE-118

Climate Change Due to Mobility Restrictions During the Pandemic COVID-19: A Review

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Abstract

Background: The pandemic has had far-reaching impacts on public health, economies, and societies worldwide. It has strained healthcare systems, disrupted supply chains, caused job losses and economic downturns, and disrupted education and daily routines, including environmental and climate change. **Methods:** This research was a study conducted using the literature review method, where searches are made from various references including international and national articles, using online databases. **Results and Discussions:** Climate change has emerged as one of the most pressing global issues of our time. With the onset of the COVID-19 pandemic, governments worldwide implemented mobility restrictions to curb the spread of the virus. These restrictions inadvertently led to significant changes in human mobility patterns, which have had both positive and negative effects on the environment. While the reduction in carbon emissions and improved air quality provided temporary relief, it is essential to recognize the complexities of these changes. **Conclusions:** As the world recovers from the pandemic, it is crucial to build upon the lessons learned and develop sustainable strategies that strike a balance between economic recovery and environmental stewardship.

Keywords: Climate Change; Covid-19; Mobility Restriction

OE-119

A Systematic Review of Airborne Microplastic Contamination: The Effects on Human Lungs

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Abstract

Background: Microplastics are the result of degradation of plastic waste in nature and contain various toxicological effects which are different for each organism**.** Microplastics are the result of degradation of plastic waste in nature and contain various toxicological effects which are different for each organism. It is estimated that humans ingest around 100,000 fine particles of plastic every day. **Methods:** Data search in this study used four electronic databases, namely Scopus, Web of Science, Science Direct, and PubMed. Cross-sectional research design. There were 20 articles that fulfilled this research. The research process includes title screening, abstract screening, full text screening, and data abstraction, this is done to ensure data objectivity. Risk assessment to reduce data bias using the JBI Critical Appraisal Tool. **Results and Discussions:** Microplastics are in the air and humans inhale microplastics every day. This can have an impact on humans who, in their daily activities, breathe air contaminated with plastic. so that sub-chronically it will have an impact on human lungs. **Conclusions:** Microplastics have an effect on human health, especially on human lungs through the air.

Keywords: Microplastic; Airborne; Contamination; Human lungs

OE-120

The Role of Government in Encouraging the Implementation of Occupational Health and safety in Companies

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Abstract

Safety performance is an employee's statement about work behavior that is relevant to safety or maintenance to explain safety-related activities by individuals to maintain safety in the workplace. The implementation of corporate K3 culture from the aspect of company management has been widely researched, but from the role of stakeholders it is still very rare. So, researchers are interested in conducting research entitled The Role of Government in Encouraging the Implementation of K3 in Companies. The aim of the research is to identify the role of government in encouraging the implementation of K3 in companies. **Research method**, literature study using government regulations governing the implementation of K3. Data analysis was carried out descriptively. **Result:** That the government regulates regulations in Law 1 of 1970 concerning work safety. This regulation regulates activities that are required to implement K3, health checks of workers, obligations of K3 management in the Company, work safety development committee, reporting obligations if work accidents do not occur, obligations and rights of workers in implementing K3 in the Company, obligations if they join the Company and sanctions if there is a violation of the company's K3. **Conclusion:** The government has regulated companies regarding the implementation of K3.

Keywords: Role of Government; K3; Company

SCOPE – F:

NUTRITION AND PUBLIC HEALTH

OF-101

Facing Infectious Diseases of the Necro-Faryingitis Virus with Antioxidant Nutritional Intake

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Abstract

Background: Necro-faryingitis infection is a disease caused by bacteria that attacks the pharynx and makes sufferers feel like they have inflammation on throat, difficulty breathing due to ripples or mucus in the pharynx and connects to the respiratory tract, namely the nose, necro-faryingitis infection is rife In Surabaya, especially at Dr. Soetomo Hospital Surabaya and willfully this virus is very deadly especially in patients who already have a history of degenerative diseases such as diabetes mellitus, asthma, and etc. Phenol acid is an antioxidant that can be called the most effective to counteract off bacteria, free radicals, or viruses. This is because phenol acid has phenolic compounds from phenol groups that are able to bind a free radical and have great potential to cure an infectious disease, especially infections that are in the throat or pharynx. Besides being easily identified, food ingredients that contain high phenol acid are also local foods that are rich in benefits, because in addition to fighting infections, bacteria, and necro-faryingitis viruses this local food spice can also reduce the percentage of cancer. Because phenol acid can also reduce or fight the virus that causes cancer.

Keywords: Necro-Faryingitis; phenol acid; antioxidant; nutrition; infection

OF-102

Factors Related to The Collaboration of KPM (Human Development Cadres) on Stunting Prevention Efforts

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Abstract

Background: There is no collaboration between KPM (Human Development Cadres) with other stunting cadres, there is no direct communication media and there is no one to facilitate KPM collaboration to carry out the task of collecting data as an indicator of stunting achievement and for stunting prevention, this can lead to repeated data collection, unequal data and irrelevant data accuracy and if KPM and other stunting cadres collaborate then the performance of both will be more effective and Efficient because of the intersecting tupoksi so that it is hoped that the data obtained for stunting achievement indicators are accurate and more optimal visits to the community. Research to determine the factors related to KPM collaboration on stunting prevention efforts. **Methods:** Quantitative research with cross-sectional study design. The research sample was KPM whose respondents served in the working area of Pringsewu Regency, Lampung Province as many as 63 respondents. The inclusion criteria are KPM who are willing to be respondents to receive a decree for at least 6 months while the exclusion criteria are KPM who are not willing to be respondents and are sick at the time of the study. Research instruments are tested using validity and reliability tests. Data analysis used univariate and bivariate analysis. **Results and Discussions:** The variables associated with KPM collaboration in stunting prevention efforts are pvalue confidence 0.032, communication *p*-value 0.021, deliberation *p*-value 0.002 and *added value p*-value 0.001. **Conclusions:** Cadre collaboration is important in stunting prevention efforts

Keywords: KPM; Collaboration; Prevention; Stunting

OF-103

Exploring The Factor Influencing Complementary Feeding Practices of Mothers with Infant 6-23 Months Old in Sidoarjo Regency, Indonesia: A Qualitative Study

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Abstract:

Background: The introduction of solid or semi-solid foods, referred to as complementary feeding (CF), is a crucial milestone in an infant's growth. This study aims to gain a deep understanding of CF practices and the factors influencing among mothers in Sidoarjo Regency. **Methods:** We conducted a descriptive qualitative study between June and August 2023 in Sedati District, Sidoarjo Regency. We selected ten mothers with children aged 6-23 months using purposive sampling. Descriptive statistics were used to analyze the demographic characteristics and thematic analysis to describe the mother's perspective during complementary feeding practices. **Results and Discussions:** Three key themes emerged on complementary feeding practices, individual perceptions, and social support dynamics. The findings underscore the widespread availability of ultraprocessed food and the significant influence of family dynamics on children's dietary preferences. Mothers may adopt differing approaches to CF practices based on their individual beliefs, and enhancing social support, including spousal involvement. **Conclusions:** This study emphasizes the significance of addressing obstacles, strengthening familial support, enhancing peer and health care professional assistance, and taking into account personalized dietary approaches. These measures are essential to effectively implementing complementary feeding practices and advancing child nutrition and development.

Keywords: Complementary feeding; perceived; qualitative analysis; social support

OF-104

Food Safety Compliance During Food Delivery: Food Riders Knowledge, Attitude, and Risk Perception

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Abstract

Background: The prevalence of online food delivery services (OFDS) environments in many food service and retail contexts has an impact on how people order and access meals. This also led to the emergence of numerous new employment opportunities, such as food delivery riders, whose numbers have increased significantly, particularly in Kuala Lumpur, Malaysia. It is critical to understand food riders' knowledge , attitude and risk perception in order to protect this new trend of food consumption under public health programmes.However, there are challenges for OFDS providers in evaluating food safety and cleanliness to ensure that clients receive safe and high-quality meals. Therefore, the purpose of this study was to examine how food riders in Kuala Lumpur's knowledge, attitudes, and risk perceptions influenced their food safety practises. **Methods:** The Google Forms platform was used to conduct a quantitative e-survey. The data from 132 Kuala Lumpur food riders was then evaluated using a descriptive statistic, followed by correlation and multi regression using the SPSS 26 edition. **Results and Discussions:** Male food riders make up the majority of Grabfood's workforce in Kuala Lumpur (64%) and are more likely to have completed a food handling course and received thyphoid vaccinations (20.5%) than female riders. The results also showed a significant positive link between food safety practises among the food riders in Kuala Lumpur for all three variables: food safety knowledge (FSK, r=0.845, p0.001), food safety attitude (FSA, r=0.832, p0.001), and risk perception (RP, r=0.774, p0.001). According to the results of the multiple regression, all three of the aforementioned components accounted for 76.5% of the variation (R2=0.770, $F_{(3,131)}$=143.00, p=0.010).**Conclusions:** To summarise, the majority of food riders have solid food safety knowledge, attitudes, and risk perception, and they follow best practises.

*Keywords***:** Food Delivery Riders; Food Safety; Online Food Delivery Services (OFDS); Public health

OF-105

Effects of early childhood growth and development interventions implemented provider on children under 2 years of age: systematic review

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Abstract

Background: The impact of interventions on early childhood growth and development is well known. However, there have not been many systematic reviews effect of interventions on the growth and development of children under 2 years of age. The objective to effects of early childhood growth and development interventions implemented by providers on children under 2 years of age. **Methods:** We conducted an electronic search using PubMed, Science Direct, Scopus, SpringerLink, and Wiley to select studies on intervention effects, and developmental growth in children under 2 years, and implemented providers published from January 2015 to December 2023. This research uses PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. **Results and Discussions:** We found 1235 articles. After the application of exclusion criteria and the exclusion of redundant references, 25 articles were analyzed thematically. The studies were organized: impact of intervention, health services implemented, growth and development, and children under 2 years of age. The implemented provider to children has an impact on long-term social, cognitive, emotional, and physical development and has a positive impact on children's growth and development. **Conclusions:** The identified studies show that providing early and comprehensive education, health and social services has an impact on the growth and development of children under 2 years of age. We found interventions as responsive stimulation provided in health services can improve the growth and development of children under 2 years of age. Further studies regarding the long-term impact of effectiveness growth and development of children under 2 years of age.

Keywords: Implemented provider; Early childhood; growth development; children under 2 years

OF-106

PREDICTOR OF STUNTING, WASTING, AND BEING UNDERWEIGHT IN INDONESIA: LITERATURE REVIEW

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Abstract

Background: Parents must be aware of stunting, wasting, and being underweight in their children. However, it is a common misconception among parents that these conditions are solely influenced by nutritional intake. In reality, various factors contribute to these incidents. This study aims to determine the factors associated with stunting, wasting, and being underweight. **Methods:** Researchers used a Systematic Literature Review design using the PRISMA procedure. The researchers applied a keyword search to databases collected via ScienceDirect, PubMed, ProQuest, SAGE and Emerald to find relevant articles published from 2016 to 2021 and in English. **Results and Discussions:** The results of the study found 17 relevant articles dan revealed several factors associated with stunting. These include factors associated with stunting include sanitation and water maintenance, low birth weight, the number and age of children, antenatal care, gender, age, mother's height, exclusive breastfeeding, parental education, complete immunization, essential amino acid intake, and family income. Factors associated with wasting include breastfeeding, nutritional status during pregnancy, antenatal care, and malnutrition. Furthermore, factors associated with being underweight include the availability of water, the availability of restrooms, the quality of the house's roof, low birth weight, limited growth and development in the womb, the height and age of pregnant women, maternal parity, breastfeeding, antenatal visits, nutrition during pregnancy, and gender. **Conclusions:** This study found that all factors related to stunting, wasting, and underweight do not stand alone as the only predictors. Instead, they interact and contribute collectively to the occurrence of these conditions.

*Keywords***:** Predictor; stunting, wasting, underweight, Indonesia

OF-107

Analysis of Total Lactic Acid Bacteria (LAB) and Organoleptic Quality of Goat Milk Kefir with the Addition of Kapok Honey (*Cheiba pentandra L.*)

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Abstract

Background: Goat's milk kefir is a probiotic product with a sour taste due to the activity of lactic acid bacteria which makes it less palatable. This study aims to calculate the total lactic acid bacteria (LAB) and the organoleptic quality of goat's milk kefir with the addition of kapok honey. **Methods:** It was an experimental study with a Completely Randomized Design (CRD). The treatment of Kapok honey flower was grouped into five levels, namely 0, 10, 15, 20, and 25% with three repetitions. There were 15 total experimental units in this study. Statistical analysis was done using One Way ANOVA test and followed by Duncan Multiple Range Test (DMRT) for normally distributed data. Kruskall-Wallis test and Mann-Whitney Post-Hoc test was done for the non-normally distributed data. **Results and Discussions:** The results showed that the addition of Kapok honey to the goat's kefir increased the total lactic acid bacteria (LAB) with a range between 2.12×10^{10} CFU/ml to 3.5×10^{10} CFU/ml ($P<0.05$). The addition of kapok honey also had a significant contribution to the organoleptic quality as measured by the following parameters; aroma, sour taste, sweet taste, texture and overall ($P<0.05$). However, in terms of color the addition of Kapok flower honey did not have a significant impact on the organoleptic quality assessment ($P>0.05$). **Conclusions:** The study resumes that the addition of kapok honey to goat's milk kefir increases the total LAB and improves its organoleptic quality.

Keywords: Goat's kefir; LAB; milk; Kapok honey; organoleptic

OF-108

Effect of Kapok Flower Honey (*Ceiba pentandra*) addition on Antioxidant Activity, Total Flavonoid, Total Phenolic, and Lactose Levels in Goat's Milk Kefir

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Abstract

Background: The addition of honey from Kapok flower may increase the bioactive component of Goat's milk kefir. This study aims to determine the antioxidant activity, flavonoid content, total phenolics and lactose in goat's milk kefir added with Kapok flower honey. **Methods:** This study used experimental design with a Completely Randomized Design (CRD). The formula was made at five levels (0, 10, 15, 20, and 25%) with three repetitions. Thus, there were 15 experimental units in this study. The data obtained were analyzed using ANOVA and followed by Duncan test to determine differences in treatment effect. **Results and Discussions:** Results showed that adding Kapok flower honey to the Goat's kefir was able to increase the antioxidant content with the highest value being P4 (98979.13 ppm). Total flavonoids and total phenolics increased with increasing concentration of kapok flower honey. The highest total flavonoid was P4 (0.0265%), and the highest total phenolic was P4 (0.0590%). The addition of kapok flower honey lowered the lactose levels in goat's milk kefir. The lowest lactose was in P4 with a level of 2.4672%. **Conclusions:** Kapok flower honey increases the antioxidant content, total flavonoids, and total phenolics, and reduces the lactose levels in Goat's milk kefir.

Keywords: Antioxidant; Flavonoid; Goat's Milk Kefir; Kapok Flower Honey; Phenolic; Lactose

OF-109

Organoleptic Test Characteristics and Acceptability of Grasshopper Nugget Flour as a High Protein Functional Food

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Abstract

Nuggets with the innovation of replacing grasshopper flour as a functional food have a fairly high protein content as an essential factor in the functioning of the human body, so it can be said that life is impossible without protein. Apart from that, grasshoppers are also a source of high protein food which is currently known to be widely consumed by people in Africa and Asia. This research aims to determine the level of acceptability of grasshopper flour nuggets as an alternative protein-rich functional food. This research was carried out using a Completely Randomized Design (CRD) with a Statistical Test, namely the Friedman Test and if there was a significant difference ($p < 0.05$) followed by the Wilcoxon Test using the SPSS 20 application. For the experimental method an Organoleptic Test was carried out with a target of 30 semi-trained panelists where researchers measured the level of preference for processed products from grasshopper flour in 3 treatments P1 (100% tapioca flour: 0% grasshopper flour), P2 (95% tapioca flour: 5% grasshopper flour) and P3 (85% tapioca flour, 15% grasshopper flour). The results of the research showed that the highest color acceptability of grasshopper nugget products was P1 (0% grasshopper flour), the highest aroma acceptability was P1, the highest texture acceptability was P1 & P2 (5% grasshopper flour), and the highest taste acceptability was P1. It can be concluded that the best received power is P1 from each parameter.

Keywords: Functional Food; Nugget; Grasshopper

OF-110

Energy Adequacy, Physical Activity, and Stress Levels in the Female Athlete Triad of Volleyball Athletes

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Abstract

Background: The Female Athlete Triad (FAT) includes eating disorders, menstrual cycle disorders, and decreased bone density can result in decreased performance in athletes. Unbalanced intake, heavy training, abnormal nutritional status and stress can increase the risk of disorders. This study aims to analyze the relationship between food intake, nutritional status, physical activity and stress levels on eating disorders, menstrual cycle disorders and decreased bone density in volleyball athletes. **Methods:** This study used a cross-sectional design with a sample of 21 people aged 14-18 years and selected using a simple random sampling technique. Data collected includes measurements of energy intake, physical activity, BMI, stress levels, eating disorders, menstrual cycle disorders. The results of the study showed a relationship between stress levels and eating disorders with a p value = 0.001, stress levels and bone density (p value = 0.033), eating disorders and bone density (p-value = 0.036). **Results and Discussions:** The results showed a significant relationship between stress levels and eating disorders with p-value = 0.001, stress levels and bone density (p-value = 0.033), eating disorders and bone density (p-value = 0.036). **Conclusions:** Stress levels have an impact on eating disorders and decreased bone density in female volleyball teenage athlete.

Keywords: Energy Adequacy, Physical Activity, Stress Levels, Female Athlete Triad

OF-111

Correlation Between Exclusive Breastfeeding, Frequency, and Portion of Breastfeeding Complementary Foods with Stunting of Toddler in Desa Puru Kec. Suruh Kabupaten Trenggalek

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Abstract

Background: Stunting is still a health problem in Indonesia. Exclusive breastfeeding and breastfeeding complementary foods are the main factors causing stunting in Toddlers. Stunting the highest nutritional problem in Trenggalek. Trenggalek has designated 15 stunting locus villages with a target of 11.35%, while the prevalence of stunting in Puru is 12.41%. It means that Puru has not achieved tha target set for 2022. The purpose of this research is to study the correlation between exclusive breastfeeding, frequency and portion of breasfeeding complementary foods with stunting among toddlers in Puru Village, Suruh District, Trenggalek **Methods:** the type of this research is observational analytic with cross sectional design. The location is in Puru Village Suruh, Trenggalek. Total population is 137 toddlers. Total sample was 58 toddlers taken by purposive sampling with the inclusion criteria being toddlers aged 6 to 59 months and willing to become research respondents. Exclusion criteria are toddlers who are sick or suffer from birth defects. The research began in September 2022 to February 2023. The statistical test used was chi square to determine the relationship between exclusive breastfeeding and the incidence of stunting. The relationship between frequency and portion of breastfeeding complementary foods with stunting using the Mc Nemar test. **Results and Discussions:** There was a relation between exclusive breastfeeding and stunting (p-value 0.009), there was a relation between frequency and portion of breastfeeding complementary foods with stunting (p-value 0.001). **Conclusions:** There was a relation between exclusive breastfeeding, frequency, and portion of breastfeeding complementary foods with stunting.

Keywords: Stunting; exclusive breastfeeding; breastfeeding complementary foods; frequency of breastfeeding complementary foods; portion of breastfeeding complementary foods

OF-112

The Effectiveness of Moringa Biscuit (*Moringa oleifera*) and Snakehead Fish (*Channa striata*) as Additional Foods in Improving the Nutritional Status of Pregnant Women with Chronic Energy Deficiency

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Abstract

Background: The prevalence of the risk of chronic energy deficiency (CED) in pregnant women in 2020 was 32.6%. How to improve the nutritional status of pregnant women with CED by providing additional food in the form of biscuits. Biscuits can be made from local food ingredients, namely Moringa and Snakehead Fish. The aim of this research is to analyze the effectiveness of providing moringa biscuits and snakehead fish to improve the nutritional status of pregnant women with CED in Sigi Regency. **Methods:** This type of quasi-experimental research with a pre-post test control group design, 30 CED pregnant women were sampled, divided into two groups, the sampling technique used total sampling, Biscuits were given five pieces per day (weighing 60g) for three months, consumption patterns were controlled through food recall. Analyzed using paired t test statistics. **Results and Discussions:** There was a significant effect on increasing BMI in both groups before and after being given biscuits with a P value of 0.000. Meanwhile, for the upper arm circumference (UAC) measurement variable, there was no effect before and after the intervention with a P value of 0.247. However, there was a difference in the treatment of providing functional biscuits and control biscuits in increasing BMI (P 0.000) and UAC (0.015) of CED pregnant women. **Conclusions:** Consumption of functional moringa and snakehead fish biscuits contributes higher energy and nutrients to CED pregnant women compared to control biscuits, biscuit made from local food can encourage family food and nutritional independence in a sustainable manner.

Keywords: Biscuits; moringa; nutrition; pregnant women CED; snakehead fish.

OF-114

Communication, Information and Education (CIE) with Maternal Parenting Behavior and Growth Toddler

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Abstract

Background: The incidence of stunting in children under five in Indonesia is 30.8%. One of the factors causing the high number of stunting cases is the ability of mothers to do parenting. Mothers do not have enough knowledge and skills in parenting. There needs to be an idea of a program to improve parenting behavior towards toddler growth. One of the efforts that can be done through the parenting CIE program. The aim of the research is to determine the relationship between parenting CIE on parenting behavior of toddler mothers and toddler growth. **Methods:** This study used a quasi-experimental design nonequivalent with control group design. The number of study samples in the intervention and control groups was 30 mothers who had toddlers in each group. The intervention was carried out for 3 months from September to December 2022. Toddler growth is measured by weighing them. Quantitative data analysis using t-test and multiple regression test with CI 95% and $p = 0.05$. **Result and conclusion**: interventions have a significant relationship with the parenting behavior of mothers under five and the growth of children under five. **Conclusion:** CIE is a program needed to improve parenting behavior of mothers under five and toddler growth

Keywords: KIE; Parenting behavior; toddler growth

OF-115

Mothers' Perspectives on Toddlers' Picky Eater Behavior: A Systematic Review

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Abstract

Background: The health benefits and importance of family mealtimes have widely expressed. Eating habits are formed from an early age through experience gained from contact with food and observations of the environment. Picky eater behavior is a common thing that occurs in childhood. Mothers of children with picky eaters have an important role in their children's care, but little is known about their perspectives regarding the support they seek and receive in fulfilling this role. This review aims to identify mothers' perspectives regarding toddlers' picky eater behavior. Because this is a new area of research, qualitative research is needed to understand mothers' perspectives on how they make decisions in dealing with picky eater behavior in toddlers. **Methods:** A systematic search of relevant databases was performed. Reference lists of included papers were also searched based on Health data. Three electronic databases (Scopus, ScienceDirect, Pubmed) using predefined search terms. Limitations on the search consisted of full text and publication date (last 10 years). The filtering process was carried out using inclusion and exclusion criteria. **Results and Discussions:** 82 studies met the inclusion criteria which were then mapped using content analysis. Studies were included if they were of good quality and focused primarily on family experiences, maternal perspectives, and family practices regarding picky eaters. **Conclusions:** The results of this review show that the conceptualization of picky eaters can explain the influence of parents' feeding practices and children's eating habits on each other. Further research is needed to understand children's perspectives and the experiences of picky eaters in later childhood.

*Keywords***:** Mother; Perspective; Toddlers; Picky Eater; Fussy

OF-116

Factors related to feeding practice of maternal to prevent stunting based on social-cognitive theory construct: A systematic review

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Abstract

Background: The high stunting rate in under five children makes this problem one of the public health problems. One of the causes of stunting in under five children is inappropriate feeding practice. Many factors that related to feeding practice of maternal. Thus, we conducted systematic review to determine the factors related to feeding practice of maternal to prevent stunting based on social-cognitive theory construct. **Methods:** Systematic searches were conducted using the following journal databases: Science Direct, PubMed, ProQuest, Web of Science, and Scopus. The inclusion criteria were only data published in peer-reviewed journals from the selected databases, limited to English language, and no limit on publication date. The study was based on Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) checklist guidelines. **Results and Discussions:** We analysed thirty-six studies: nine assess knowledge, ten social support, eleven self-efficacy, and six barriers and facilitators. Feeding practice were affected by maternal knowledge, social support, self-efficacy, barrier's and facilitators. To improve maternal feeding practice, several interventions were implemented including educating mothers, feeding support groups, and lactation-support service. **Conclusions:** There are many factors that related feeding practice of mother. There is potential for improvement of maternal feeding practice by designing effective interventions.

Keywords: feeding practice; social cognitive theory; social cognitive learning; child stunting

OF-117

Utilization of Biscuits as Nutrition Carrier to Improve Stunting Condition among children: A Systematic Review

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Abstract

Background: Childhood stunting remains a global health issue with significant consequences for growth, long-term health, and development. Poor nutrition is a well-established contributor to childhood stunting, with dietary interventions, including different nutrients, emerging as potential strategies to address this major health issue. This study aims to investigate the potential of utilizing biscuits as a nutrition carrier to improve the stunting condition among children. **Methods:** We conducted this systematic review by literature search in several databases, including Scopus, Web of Science, ScienceDirect, PubMed, and Springer, following the PRISMA methodology. Our search yielded a total of 836 articles and we assessed the selected studies for their relevance, adherence to the research question, employing inclusion and exclusion criteria. **Results and Discussions:** The included studies revealed promising findings regarding the utilization of biscuits as a nutrition carrier to address childhood stunting. These studies highlighted the effectiveness of fortified biscuits in providing essential nutrients to children, thereby contributing to growth improvement. However, variations in study design, populations, and interventions were observed, underscoring the need for standardized approaches and further research. **Conclusions:** This review provides evidence supporting the use of biscuits as a nutrition carrier for addressing childhood stunting. Nevertheless, more well-designed and standardized studies are warranted to establish clear guidelines for the formulation and implementation of biscuit-based interventions. Policymakers and health practitioners should consider incorporating fortified biscuits into strategies aimed at reducing childhood stunting rates, especially in regions with a high prevalence of stunted growth.

Keywords: Biscuits; child development; childhood stunting; dietary interventions; growth improvement

OF-118

Impact of Micronutrient Supplementation on Hemoglobin, Ferritin, and Retinol Status in Stunting Children Under 5 years in Urban Poor Regions

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Abstract

Background: Stunting is intently related to the deficiency of various variouvitaminutrients, vitamins, and minerals. Micronutrient deficiencies, which include diet A, iron, and zinc afflict more than three billion people internationally. **Methods:** This study intends to analyze the lengthy-term intake of dietary supplements along with, essences, nutrition C: 50 mg, Zn: 8 mg, minerals Fe: 8 mg, and vitamins B1, B2, B6: 1 mg, at the status of hemoglobin, ferritin, and nutrition A substances in malnourished babies. Materials and strategies: This form of study is quasi-experimental. The subjects of this study were youngsters elderly 1 to a few years old who were malnourished by the use of one intervention organization. The cyanmethemoglobin method became used to research hemoglobin reputation; For ferritin popularity, serum ferritin has measured the use of the ELISA technique. size of nutrition A ranges became carried out by means of determining serum retinol complementary HPLC. This complementary drink intervention changed into given as soon as a day in the morning and for 12 weeks or three months. **Result**: before the intervention, 25% of the samples, particularly malnourished toddlers, had abnormal hemoglobin fame (anemia), 39.5% ferritin reputation changed into unusual, and 5,3% vitamin A degrees were strange. Supplementary drink intervention can reduce hemoglobin reputation in malnourished children by 13.2%. and 23.7% ferritin repute but there has been a boom within the wide variety of kids under five who had atypical vitamin A (retinol) stages of 9.2%. **Conclusion**: Giving supplementation for three months to under-fives with malnutrition can reduce hemoglobin repute and ferritin reputation but there's an increase in diet A (retinol) degrees.

*Keywords***:** Ferritin; Hemoglobin; Micronutrient; Retinol; Malnutrition

SCOPE – G:

MENTAL HEALTH, TOBACCO, ALCOHOL, AND SUBSTANCE USE

OG-101

Effects of Co-Administered Methadone and Methamphetamine on Liver Histology, Cytochrome P450 (2D6) and Neurotransmitter

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Abstract

Background: Methadone maintenance treatment (MMT) uses methadone to treat dependence on heroin or other opioids and is administered on an ongoing basis. Unfortunately, the co-administration of methadone and methamphetamine has become a serious public health challenge worldwide, and little is known about their combined effects. Therefore, this study is conducted to determine the effects of co-administration of methadone and methamphetamine on liver-related activity. **Methods:** Twenty-eight male Sprague-Dawley rats were randomly divided into four groups (n = 7): the normal control group (received no treatment), the methamphetamine group (3 mg/kg, iv for fourteen days), methadone (1 mg/100 mL for fourteen days), and combination methamphetamine-methadone (3 mg/kg, iv, 1 mg/100 mL, respectively, for fourteen days). Levels of cytochrome P450 (2D6) and dopamine were determined using an ELISA kit. The histopathology of the liver was examined using hematoxylin and eosin staining techniques. **Results and Discussions:** This study demonstrated that the level of P450 (2D6) decreased, significantly increasing the level of dopamine in the blood in combination with methamphetamine-methadone. Besides that, there are also abnormal changes in the liver, such as nuclear enlargement, nuclear shrunkenness, and nuclear fragmentation, which are indicative of possible hepatocellular damage. **Conclusion:** It is recommended that those who are under MMT should not take methamphetamine, as it will cause liver toxicity. It will also increase the risk of treatment discontinuation or dropout. By knowing the pharmacology of these effects, we can work better to provide the best treatment for addressing this public health issue.

Keywords: Methadone Maintenance Therapy; cytochrome P450 (2D6); dopamine; methamphetamine; methadone; liver toxicity

OG-103

Risk of Family Cigarette Exposure on Abnormal Nervous Development in Toddlers: Bibliometric Visualization and Systematic Literature Review

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Abstract

Background: The visualization of the risk of current children's health problems due to smoking behavior in the family has not been widely explored. This study aims to carry out bibliometric visualization followed by a systematic literature review of the risk of health problems in children due to smoking behavior. **Methods:** Research data was obtained from various well-known digital libraries. The bibliometric visualization displays the main keywords for child health problems based on 2017–2020. Meanwhile, a systematic literature review was carried out in the range of April 2013–April 2023 after the visualization was carried out to obtain the main outcomes due to family smoking. Article searches were carried out in three databases, namely Scopus, PubMed, and SpringerLink. **Results and Discussions:** The main results of the data analysis revealed that the health problems of children under five were due to family smoking behavior, namely neurodevelopment. These disorders include delays in fine and gross motor skills, neurodevelopment, lower levels of focused attention, children's language skills, lower adaptive behavior, decreased children's motor development, language and cognitive development disorders, lower and thinner children, and hearing loss. **Conclusions:** Further research, especially in developing countries in urban areas, is very important to strengthen smoking control, especially for poor households.

Keywords: Neurodevelopment; Children; Cigarette Exposure; Household

OG-104

Sleep Quality and Sleep Pattern Towards Absenteeism of Healthcare Students

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Abstract

Background: Sleep issues are regarded as both a prognostic indicator and a manifestation of numerous medical diseases and are associated with significant deterioration in overall well-being. Healthcare students are more susceptible to experiencing sleep deprivation due to their requirement to participate in hospital-based internship training and the heightened stress associated with their examinations. The aim of the study is to investigate the relationship between sleep quality and sleep patterns of healthcare students with absenteeism at private healthcare colleges. **Methods:** The cross-sectional study employed a convenience sampling method, which included 86 students who met the inclusion and exclusion criteria and participated in the assessment. The evaluation entailed utilizing a self-administered questionnaire, specifically the Pittsburgh Sleep Quality Index (PSQI) and the Epworth Sleepiness Scale (ESS), to gauge the sleep quality and patterns of the students who exhibited absenteeism. A series of Spearman rank-order correlations were conducted. **Results:** A two-tail test of significance indicated there was a significant relationship between sleep quality and student absenteeism r_s (86) = .740, p<.05. Moreover, a two-tail test of significance indicated there was a significant relationship between sleep pattern and student absenteeism r_s (86) = .397, p<.05. **Conclusion:** It is imperative to advocate for the implementation of sleep assistant support and services within the healthcare colleges to underscore the importance of considering both the quality and quantity of sleep for individuals to effectively identify and implement strategies to enhance sleep behavior while mitigating absenteeism.

*Keywords***:** Absenteeism; Mental Health; Sleep Pattern; Sleep Quality; Quality of Life

OG-105

Application of Supportive Group Therapy on Depression among Elderly with Hypertension

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Abstract

Background: Hypertension in the elderly can have various impacts, physically, mentally and socially. Elderly people are at risk of experiencing depression. Elderly people who experience depression experience changes in attitudes, cognition and behavior, even accompanied by feelings of hopelessness, helplessness and feeling useless.This condition requires appropriate management, intervention and support from the family and environment. One intervention that can be applied to depressed elderly people with hypertension is supportive group therapy. **Methods:** This research is an quasi-experimental two group pre and post test design. The data were obtained from the intervention study that was carried out for elderly with hypertension in Ariodillah Palembang Community Health Center in four meetings. Sample for the intervention study was carried out by purposive sampling from an elderly with hypertension. Participants selected fulfilled inclusion criteria: elderly hypertension degrees I and II, aged ≥ 55 years. The exclusion criteria are participants who have heart disease, asthma, liver, hepatitis, fever, gout, kidney. There are 60 participants who devided into two group were involved in the study. Level of depression were assessed from the pre and post test conducted in training. **Results and Discussions:** Supportive group therapy can improve elderly with hypertension' level of depression. This intervention significantly influences the level of depression, with a p-value is 0.000. **Conclusions:** Elderly with hypertension should receive supportive group therapy to reduce their level of depression.

*Keywords***:** Supportive group therapy; Elderly, Hypertension; Depression.

OG-106

Factors Associated with Coping Mechanisms on Compliance with Diabetes Mellitus Patients at Katobu Community Health Center, Muna Regency 2023

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Abstract

Background: Diabetes mellitus is a disorder of carbohydrate, fat and protein metabolism resulting from abnormalities in insulin secretion, insulin action, or both and is characterized by high blood sugar levels.The stress problem of diabetes sufferers is closely related to the problem solving strategies used by diabetes sufferers. Psychosocial factors buffer the negative effects of stress on blood glucose. If the psychosocial response is negative, it will have an impact on behavior, an inability to make decisions and an unhealthy lifestyle, which can inhibit the decline in blood glucose. Objective: To determine the factors related to coping mechanisms and compliance in diabetes mellitus patients. **Methods:** Analytical survey with a "cross sectional study" approach. Population: All DM type II sufferers seeking treatment at the Katobu Community Health Center, with a sample size of 31 people. Statistical test using Chi Square with $(\alpha) = 0.05$. **Result:** there is a relationshiplevel of education (p value = 0.001) age (p value = 0.002) and gender (p value = 0.001) with coping mechanisms on diabetes mellitus patient compliance. If a person's level of education is high then their knowledge will be good, the older a person is, the more constructive they will be in using coping with the problems they face, and women usually have better resistance to stressors than men, so that DM patients are able to behave positively and adhere to treatment. **Conclusion:** The factors of education level, age and gender are strongly related to coping mechanisms for compliance in diabetes mellitus patients.

*Keywords***:** Age; Coping; Diabetes Melitus; Education; Gender

OG-107

The Most Influential Factor in Smoking Behavior Aged 15-24 years in Bantul, Special Region of Yogyakarta, Indonesia

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Abstract

Background: Smoking is one of the risk factors for non-communicable diseases. Smoking worsens a person's health and can even cause death. This smoking behavior is primarily initiated in adolescence. This study aimed to determine the influence between knowledge, attitudes, family roles, and peers on smoking behavior aged 15-24 and determine the most influential factors. **Method:** The design of this study is cross-sectional, with the target being adolescents aged 15-24 years, 368 samples in Bantul Regency, Special Region of Yogyakarta, Indonesia. The sampling technique used is multistage random sampling. The test used is logistic regression. **Results and discussion:** This study showed that 67.9% of the sample were smokers. The results of the relationship test show that knowledge (p-value 0.001; OR 4.404, CI 2.714 – 7.146), attitude (p-value 0.001; OR 47.061, CI 19.794 – 111.892), family roles (p-value 0.001; OR 9.622, CI 5.636 – 16.429), peer role (p-value 0.001; OR 32,057, CI 15,793 – 65,072) on smoking behavior. The results of the influence test resulted in three variables that influenced smoking behavior, namely knowledge (p-value 0.076), attitude (p-value 0.000), and peer role (p-value 0.000), with an R square of 0.627. **Conclusions:** knowledge, attitudes, family roles, and peers were associated with adolescents aged 15-24, but only inside attitudes and family roles influenced smoking behavior aged 15-24, which affected 62.7%. Attitude is the most influential variable on the smoking behavior of adolescents 15-24 years; therefore, intensive intervention is needed for adolescents to form attitudes that do not support smoking.

*Keywords***:** Adolescent; behavior; determinant; smoking

OG-108

Determining Family Length in Patients with Hallucination Disorders in Surabaya City, East Java, Indonesia?

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Abstract

Background: Based on East Java health profile data in 2021 the number of ODGJ with serious disorders was 72,041 and the highest number was the city of Surabaya with the number 5,546. **Objective**: analyze the determinants that determine the duration of hallucinations in Surabaya city. **Method**: This research uses descriptive analytics. The sample was 104 families of patients with hallucinations. The research location is in the city of Surabaya. Data analysis used bivariate analysis using the independent sample t test, Pearson correlation test and oneway anova test. **Results and Discussion**: There is a significant difference in the duration of hallucinatory disorders based on age group (sig 0.0001); There was no difference in the duration of hallucinatory disorders based on the patient's gender (sig 0.744); there is a difference in the duration of hallucinatory disorders between those treated by parents and family (sig 0.001) and between those treated by siblings and others (sig 0.014); There is a significant difference in the length of time people suffer from hallucinatory disorders based on the age of the patient's companion, 18-25 years and 26-49 years (sig 0.046); There was no significant difference in the length of time people suffer from hallucinatory disorders based on the status of the sufferer's companion (sig 0.208). **Conclusion**: determinants that influence the length of time a patient has hallucinations include age, the sufferer's companion and the age of the companion. The more optimal family function is known to be able to minimize the length of time the patient experiences hallucinations.

*Keywords***:** Determinant; Family; Hallucination; Disorders; Mental

OG-109

Joinpoint Trends Analysis of Disability Adjusted Life Year of Anxiety Disorders and Depression from 1990 to 2019 in Indonesia

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Abstract

Background: The impact of mental disorders, especially anxiety disorders and depression, leads to severity of illness, costs, and suicidal ideation. One suggested measure of the impact of anxiety disorders and depression is the Disability Adjusted Life Year (DALY). However, the number of DALYs attributable to these two diseases over time in Indonesia is unknown. The aim of this study was to analyze the trend of DALYs of anxiety disorders and depression in Indonesia over a period of 20 years. **Methods:** We obtained data from the global burden of diseases (GBD) study in 2019. We used joinpoint regression modeling to obtain the best model to analyze the trend of DALYs of anxiety disorders and depression. The outputs of the joinpoint regression we used were Annual Percentage Change (APC) and Average Annual Percentage Change (AAPC). We use these two numbers to see the high and low annual trend changes. **Results and Discussions:** APC for DALY of anxiety disorders was highest at 0.316 (95%CI 0.309-0.324) in 2006-2016. In recent years (2016-2019), it has increased (95%CI 0.194 (0.136-0.235). Meanwhile in depression, the largest AAPC of DALY in 2017-2019 was 1.337 (95%CI 1.084 - 1.537). During 1990-2019, the AAPC of anxiety increased by 0.168 (95%CI 0.164-0.171) and depression decreased by -0.016 (95%CI -0.031 - -0.004). **Conclusions:** Anxiety has had a high rate of increase in DALYs recently, which is cause for concern. Although depression has decreased in AAPC, the DALY APC in the last year 2017-2019 has increased greatly.

Keywords: Joinpoint Trends Analysis; Disability Adjusted Life Year; Anxiety Disorders; Depression

OG-110

Mental Health Readiness of the Bride and Groom in Marriage Readiness: Literature Review

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Abstract

Background: There is a relationship between mental health and marital adjustment in married couples. Mental health or mental health problems are still considered less important than physical health. If mental health problems are not handled properly, they can have very serious impacts and threaten human life. In a marriage bond, of course there is a need to continue offspring through pregnancy planning. Pregnant women are a group vulnerable to experiencing emotional or psychological disorders. Physical changes and hormonal function can trigger emotional instability in pregnant women. Couples who are getting married are advised to undergo health checks, not only physically but also mentally. So far, premarital checks have been thought to only be about physical health, but it turns out mental health checks are just as important. **Methods:** literature review searches were conducted using the following journal databases: Science Direct, PubMed, ProQuest, SAGE journal, Web of Science, and Scopus. **Results and Discussions:** Based on a literature review of 25 scientific articles obtained, only 25%–39% of couples consult a health professional before the wedding to prepare for conception, including mental health. **Conclusions:** Marriage is a long process that both must face, until finally they are blessed with a baby. Therefore, it is very important to know the mental condition or risk of psychological disorders in your partner.

*Keywords***:** Readiness; mental health; prospective bride and groom; marriage

OG-111

Mental Health Screening and Its Correlation to Academic Self-Efficacy among Public Health Students

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Abstract

Background: There were an increasing number of students seeking counseling services for psychological problems. This study aimed to determine the prevalence of students based on the type of mental health in terms of the mental health continuum and whether it affect the academic self-efficacy. **Methods:** This was a descriptive-analytic study with a cross-sectional approach. The study was conducted in Jember, East Jawa during May-June 2022. The population was public health students. The sampling method used was voluntary response sampling. Instrument were using the MHC-SF, while psychopathological indicators were measured by HSCL-25 and academic self-efficacy using GSE. Bivariate data was analyzed with an ordinal regression test. **Results and Discussions:** A total of 115 full-time students in the faculty of public health age 18-23 years old answered the survey. Most of the respondents have high academic self-efficacy (72.8%) and most of them have depression (87.8%). A significant correlation between students' anxiety and depression levels in different mentally healthy status (p-value: 0.000; r: -0.488). The negative correlation between the mentally healthy and the psychopathological means higher scores of mentally healthy reflect lower scores of anxiety and depression levels. Analysis using ordinal regression showed that the mentally healthy significantly affects academic self-efficacy (p-value: 0.000; OR: 16.4) means there is a risk of 16 times to obtain high academic self-efficacy on students with better mental health, however psychopathological did not significantly affect academic self-efficacy. **Conclusions:** we need to develop preventive intervention programs so that students achieve more optimal psychosocial functioning that affects academic self-efficacy.

*Keywords***:** Academic self-efficacy; mental health; public health student; two continuum model

SCOPE – H:

TECHNOLOGY AND INNOVATION

IN HEALTH SECTOR

OH-102

Stunting Meter: A Portable Digital Ultrasonic Device for Child Height Measurement and Stunting Detection

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Abstract

Background: Stunting is a global public health concern, and Indonesia has set a national agenda to accelerate its reduction through primary healthcare transformations. This aims to develop a digital height measurement and stunting detection tool. **Method:** This is research and development through five stage: literature review, development and analysis using Force Field Analysis (FFA), accuracy test, acceptance test, and downstream analysis. For FFA, we involved 12 experts from different health professionals, frontline health workers, and early education teachers. Test and re-test were conducted with 50 children under-fives. We included 43 people for user acceptability test. We tested data accuracy using t-test and user acceptability with the cut-off of 80. All of these analyses were done using STATA. **Result and Discussion**: Our study resulted in a well-developed digital ultrasonic device "Stuntingmeter" for child height measurement in centimeter, height-for-age Z-score, and stunting status detection. Our literature review found that "Stuntingmeter" met high novelty aspect. The FFA analysis found positive stakeholder and user perceptions encouraged the innovation of the device. Field scale measurement test showed accuracy or no significant different with the gold standard ($p<0.05$), output reading in 4 seconds, high user acceptability (>85), and a potency for research downstreaming to support health transformations. This tool has been registered for a patent in Indonesia (number: S00202306944). **Conclusion:** We succeed to build an accurate and practical stuntingmeter digital. User can implement the tool for assessing stunting fast and accurately, but more widespread use requires government policies promoting mass production, distribution, and tool usage.

Keywords: Detection; digital tool; measurement; stuntingmeter; ultrasound sensor

OH-103

Development of the Dashboard Information System for the Public Satisfaction Index about Hospital X in East Java

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Abstract

Background: The assessment of public satisfaction about Hospital is crucial due to the complexity of healthcare services, intense competition among healthcare facilities, and stakeholder demands for an effective tool to monitor and provide information about service and infrastructure quality while enhancing transparency in hospital management. In the digital transformation era, the use of a dashboard as a system which capable to deliver real-time visual information is a key element for improved decision-making, measuring the impact of improvements, and reflecting patients' assessments of hospital performance and facilities. **Methods:** The development methods of this dashboard used literature review and Focus Group Discussion (FGD). The literature review aimed to understand the concept of dashboard information systems and the indicators of public satisfaction index based on Regulation Menpan RB Number 14 of 2017. FGD with the stakeholder was conducted to determine the appropriate dashboard design (user-centered design). The research objects were 11 units at Hospital X in East Java. **Results and Discussions:** The development of the dashboard for public satisfaction index about Hospital X in East Java was created using Google Services, providing online accessibility with a user-firendly interface based on stakeholders standar need. **Conclusions:** The dashboard development has successfully displayed public satisfaction index as per requirements, provided real-time information, provided a user-friendly interface, and offered transparency in information as needed by stakeholders.

*Keywords***:** Dashboard; Public Satisfaction Index; Hospital

OH-104

Correlation of Nurses' Self-Leadership with Technology Acceptance (A Study at Indonesian Urban General Hospital)

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Abstract

Background: Information system in hospital is a crucial key factor for high performance to support efficacy and efficiency. Nurses play important role in patient care as they do most tasks in medical and management aspect. Researches in technology acceptance has revealed some factors that contribute to the usage of information system. Self-leadership as a process to achieve self-direction is necessary to have good performance in modern days. Research of the correlation these two factors is limited. **Methods:** A questionnaire (RSLQ) to measure self-leadership variables and technology acceptance (UTAUT) variables was given to clinical nurses of nursing department. Simple random sampling brought out sample size of 104-validated questionnaires from 149 population. Data analysis had been done for descriptive values and non-parametric test for correlation coefficient of each variable **Results and Discussions:** Respondents are mostly female (76.9%) with dominant age group 20 – 29 years old (41.3%). The highest score of self-leadership variable is self-goal setting (3.20 SD. 422) and technology acceptance variable is social influences (3.22 SD. 460). The result shows significant correlation between self-leadership and technology acceptance ($p<0.05$) and all its three variables ($p<0.05$). **Conclusions:** Self-leadership is correlated to technology acceptance and its variables. Low technology acceptance variable or nurse could be caused by still developing information system at hospital and other factors

*Keywords***:** Nurse; self-leadership; technology acceptance

Integrated Early Warning System for High-Risk Pregnant Woman: Development of Management Information System Between PHC and Hospital

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Abstract

Background: There were 22 cases of maternal death in Banyuwangi District in 2013 out of 23,634 live births. The cases of maternal mortality needs attention considering to reduction MMR. An information system for high- risk pregnant woman is needed as a basis for decision making and Local Area Monitoring (PWS). The research aims to analyze the need for developing an integrated early warning system for high-risk pregnant woman between PHC and Hospital **Methods:** A qualitative design and action research. Primary data was obtained from interviews, observations, and FGD. Informants are Head, Midwife Coordinator, and Area Midwife of PHC; Head of Medical Service, and Head of IT Public Hospital. Secondary data from PHC and hospital documents. Processing and analysis data descriptively. **Results and Discussions:** Problem identification of existing system was manual for compilation, analysis, and mapping; no integrated system between PHC and hospital MIS; referral patient data was re-entered in referral patient registration; the presence of high-risk pregnant women not yet known by the hospital; and information on the availability of maternal rooms in the hospital cannot be accessed directly by referral patients. There was an opportunity to develop an integrated MIS. **Conclusions:** There was need for developing an information system for high-risk pregnant women between PHC and hospital, that can be used by all level users, can relied on to carry out data processing, easier to produce quality information. The MIS is based on websites (web-based) and Android for an integrated early warning system to prevent deaths of pregnant women.

*Keywords***:** Management Information System; High-risk Pregnant Woman; Maternal Health.

OH-106

Mapping Global Research Related to User Acceptance of Technology in Healthcare: A Scientometric Review

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Abstract

Background: The Acceptance and Use of Technology Models suggest that some constructs predict behavioral intention toward the acceptance and use of technology. Therefore, these models are increasingly being used by researchers worldwide. **Method:** We conducted a quantitative scientometric review of 769 relevant journal articles published between 1995 and 2023, indexed in the Web of Science Core Collection Acceptance and Use of Technology Models in Healthcare implementation, to determine which models are most used by researchers. **Results and Discussion:** The findings show that the number of articles published in the field has increased rapidly, especially since 2005, and this expansion has been led primarily by the USA, China, and England, as these three countries not only produced most of the high-yielding research institutions and productive authors but also published a majority of the prolific journals. Journals related to the SDG's topic in the top three are related to affordable and clean energy, good health and well-being, and climate action. **Conclusion:** These results supplement the existing qualitative literature from a quantitative standpoint and provide useful insights and ramifications for global studies pertaining to technology model utilization.

Keywords: Utilization technology model; literature review; Scientometric analysis; Citespace

SCOPE – I:

ONE HEALTH, ANTIMICROBIAL RESISTANCE, AND ZOONOSES

OI-101

Nano-emulsion of mangosteen rind extract in mucoadhesive patch for periodontitis regenerative treatment: In Vivo study

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Abstract

Background: Periodontitis is a widespread oral infectious disease that affects populations worldwide. It is characterized by alveolar bone loss resulting from inflammatory responses triggered by bacterial pathogens, notably two major causative microorganisms: *Aggregatibacter actinomycetemcomitans* and *Porphyromonas gingivalis bacteria*. The field of dentistry has witnessed rapid advancements in diagnosis, prevention, and treatment, largely attributed to the integration of nanotechnology. Consequently, this study aims to explore the therapeutic potential of a nano-emulsion of mangosteen rind extract within a mucoadhesive gingival patch for the management of periodontitis. Additionally, it seeks to assess the impact of this treatment on the expression levels of TNF-α, RANKL, and IL-10. **Method:** Laboratory experimental research was conducted 60 Wistar rats were used and divided into four groups: positive control group (A mucoadhesive patch with doxycycline), control negative group (Mucoadhesive patch), Treatment group I (A mucoadhesive patch with mangosteen rind extract), and the Treatment group II (A mucoadhesive patch with nano-emulsion of mangosteen rind extract). *Porphyromonas gingivalis*-Induced periodontitis as an experimental model in rats by 0.03ml of bacteria locally with 1×10^{10} colony-forming unit seven times at 2-day intervals in the gingival sulcus of mandibular anterior teeth. Application of treatment was for 1 hour/day for 3 days. On the days 3, 5, and 7 after treatment, five rats from each group will be slaughtered. TNF-α, IL-10, and RANKL expression were determined by dissecting the lower jaw for immunohistochemistry. **Results:** Research shows that the mucoadhesive patch with nano-emulsion mangosteen rind extract significantly decreases TNF-α and RANKL expression and increases IL-10 expression ($p < 0.05$) when compared to the treatment I, positive and negative control groups. **Conclusion:** A mucoadhesive gingival patch with nano-emulsion of mangosteen rind extract has therapeutic potential for the healing process of periodontitis by decreasing the TNF-α, RANKL, and increasing IL-10 expression.

Keywords: Mangosteen Rind Extract; Mucoadhesive Gingival Patch; Nano-Emulsion; Periodontitis; *P. gingivalis* bacteria

ISOPH 7

OI-102

Antibacterial Activity of Yemen Sidr Honey Against Periodontopathogen Bacteria

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Abstract

Objective: To demonstrate the antibacterial impact of Sidr honey on *Aggregatibacter actinomycetemcomitans*, *Porphyromonas gingivalis* and *Fusobacterium nucleatum* bacteria as major periodontopathogens which are responsible for causing periodontitis. **Method**: Minimum Inhibitory Concentration and Minimum Bactericidal Concentration values are calculated using the serial dilution method, and the measurement of the inhibition zone was conducted using the diffusion method on the Mueller Hinton agar medium. **Results**: According to the study, there are significant differences between the number of bacterial colony groups that develop against *Aggregatibacter actinomycetemcomitans, Porphyromonas gingivalis and Fusobacterium nucleatum* bacteria on the Minimum Inhibitory Concentration (12.5%) and Minimum Bactericidal Concentration (25%) of Yemen Sidr honey with p-value = 0.000. Similarly, the disc diffusion method for Yemeni honey against *Aggregatibacter actinomycetemcomitans, Porphyromonas gingivalis and Fusobacterium nucleatum* bacteria, showed significant differences with a p-value (0.000). **Conclusion**: According to the findings of the study, Yemen Sidr honey revealed its antibacterial effect in inhibiting and preventing the growth of bacteria causing periodontitis.

Keywords: Antibacterial; Periodontitis; Periodontopathogen bacteria; Yemen Sidr honey

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