



ISOPH

4th International Symposium of Public Health



UNIVERSITAS AIRLANGGA
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Queensland, Australia



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ABSTRACT BOOK

Optimizing Public Health for Sustainable Global
Prosperity Through Innovative Collaboration

ISOPH 2019 | **OCTOBER 29TH-30TH, 2019**

4th International Symposium of Public Health



GRIFFITH UNIVERSITY, GOLD COAST CAMPUS,
QUEENSLAND, AUSTRALIA

About the conference

The 4th International Symposium of Public Health will be held from the 29 October to 30 October at Griffith University, Gold Coast Campus, Queensland, Australia. This is the fourth time the symposium has been held and the first time it has been held outside of Indonesia. The symposium has been jointly organised by the Faculty of Public Health, Universitas Airlangga and the School of Medicine, Griffith University.

The conference serves as a valuable and important platform to facilitate the sharing of knowledge, skills and practices and build collaboration between public health academics, educators and professionals. The 2019 4th ISOPH conference theme is Optimizing Public Health for Sustainable Global Prosperity Through Innovative Collaboration. Supporting the overarching conference theme are the four sub-themes:

- Sub-themes A | Contemporary public health challenges: Populations, issues, and settings
- Sub-themes B | Innovative strategies to promote health
- Sub-themes C | Sustainable and healthy urban living
- Sub-themes D | Multi-stakeholders partnership to strengthen health system

The conference theme focuses attention on the role public health must play if we are to achieve a sustainable future in the 21st century. The subthemes highlight important current and future challenges facing public health, as well as strategies to address these challenges through innovation, multi-stakeholder partnerships and sustainable and healthy urban living.

We extend a warm greeting to those attending our annual symposium and our gratitude to those who have contributed to and supported it.

WELCOME MESSAGE
CHAIRMAN OF 4th ISOPH COMMITTEE



Dear ladies and gentlemen.
Assalamu'alaikum Warahmatullahi Wabarakatuh.

Welcome to the 4th International Symposium of Public Health (ISoPH) “Optimizing Public Health For Sustainable Global Prosperity Through Innovative Collaboration” in Griffith University, Gold Coast, Queensland, Australia on October, 29th-31st 2019.

This symposium is annually event that has been held by Doctoral Program of Public Health, Universitas Airlangga, Surabaya, Indonesia. This year, we are collaboration with Griffith University and it would be held in Queensland, Australia.

The theme of symposium is “Optimizing Public Health For Sustainable Global Prosperity Through Innovative Collaboration” that aims to improve the knowledge of the public health workers, lecturers, students, and practitioners towards the latest strategic issues. Besides that, it also aims to build a multisector and multilateral collaboration in order to optimize the research and innovative health service. This is conducted to improve the public health degree that is line in with the Sustainable Development Goals; especially in the Asia-Pacific Regional.

This symposium would exchange the knowledge and experiences related to the optimization of public health based on the various issues.

The 4th ISOPH is expected to be able to provide high quality symposia with experts from various countries. It can be also as a strengthen media to understand the latest public health problems, as a media to build collaboration between the participations and host – co-host; include knowledge and experience sharing from the students, lecturers, practitioners, as well as public health observers. This event facilitates the result of participations to be reviewed by the experts; and selected article will be proposed to be published as Scopus indexed journal as well.

We also open an opportunity for you to join us and get the new experience and enlighten for improving the personal and professional capacity in the field of public health.

Regards,
Anas Tamsuri, S.Kep., Ners., M.Kes
Organizing Committee

**WELCOME MESSAGE
DEAN, FACULTY OF PUBLIC HEALTH
UNIVERSITAS AIRLANGGA**



Honorable Guests, Ladies and Gentlemen, Ministers, Speakers, Coordinator of Doctoral Programme in Public Health, Rector of Universitas Airlangga, Rector of Griffith University

Assalamu'alaikum Warahmatullahi Wabarakatuh

It is my great pleasure to welcome you to The 4th International Symposium of Public Health (4th ISOPH), which take place 29th October-31st October 2018 at Griffith University, Gold Coast, Queensland, Australia.

The 4th ISOPH is the fourth international symposium which is held annually by the Faculty of Public Health, Universitas Airlangga, and this time we held at our university partner, Griffith University to improve knowledge and skills about public health issues, gain network with other health professionals as well as increase the number of scientific publications for students, lecturers and health professionals.

With the theme of the Conference is "*Optimizing Public Health for Sustainable Global Prosperity Through Innovative Collaboration*", we are hoping that the conference will gather the highest possible level of global health issues in Indonesia as well as International area with regards to health policies and laws, global health finance and a political commitment to make health a priority.

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

Regards,
Prof. Dr. Tri Martiana, dr., M.S.
Dean, Faculty of Public Health, Universitas Airlangga

Plenary Speakers



Professor Cordia Chu

Current Position Centre Director – (2004-current)

**Employer on Centre for Environment and Population Health (CEPH), School of Medicine, Griffith Health, Griffith University
170 Kessels Road, Nathan, QLD 4111**

Telephone : +617 37357458

Mobile: 0414 927 339

Email : c.chu@griffith.edu.au

Education & qualification

PhD in medical sociology and anthropology (U Queensland 1986)

Research interests

I have won 32 research and capacity building project grants, 49 international and 26 Australian consulting and advisory projects and served on many professional committees and six editorial boards. I was awarded the Member of the Order of Australia (AM) in 2013 in recognition of my contribution to reproductive and public health. Winner of a 2018 Special Commendation from the Australian Council of Graduate Research Award for Excellence in Graduate Research Supervision; Winner of Griffith University 2010, and 2016 “excellence in higher degree research supervision award”; have completed 8 post-doctoral fellows, **41 PHDs**, 3 MPhils, 6 honours and over 45 masters. Currently I am mentoring a team of staff to co-supervise 19 PhDs. I have published five books, over **190 Journal** articles and chapters, 2 policy/guidelines, 4 commissioned research communication booklets, 14 training manuals, 5 documentaries films, 21 international consultancy reports, 1 WHO regional guideline, 4 films and have delivered 62 key note addresses, over 150 invited presentations and 44 international conference papers. (Publication list available upon request)

Plenary Speakers



Professor Paul Burton

Current appointment

Director, Cities Research Institute, Griffith University: 2016-
Professor of Urban Management and Planning, Griffith University:
2007

Email :

Education & qualification

PhD (Social Sciences), University of Bristol, 1986
BA (Hons) Town Planning, Polytechnic of the South Bank, London,
1979

Research interests

- 2017-22 **Future City Research Partnership** with City of Gold Coast (\$1.4m)
2008-2017 **Urban growth management research partnership** with City of Gold Coast
(\$2.8m)
2017-18 **Logan Integrated Services Environmental Scan (Yarrabilba)**, Department of State
Development, with Professor Anne Tiernan and Professor Lesley Chenowith (\$90k)
2016-17 **Review of Queensland Government infrastructure plans and strategies: the
scope for greater integration**, Department of Infrastructure, Local Government and
Planning, Queensland Government, with Bruce James and Associate Professor
Matthew Burke (\$71k)
2011-14 **Citizens' Juries and health policy making**, ARC Linkage Grant with Professors
Paul Scuffham (PI) & Elizabeth Kendall (\$367k)
2011-13 **Food security, urban agriculture and climate change**, NCCARF Synthesis and
Integrative Project Grant, with Drs Kristen Lyons and Carol Richards, UQ and Dr
Marco Amati, Macquarie (\$96k)
2008- **Developing the effectiveness of Health Community Councils in Queensland**,
Southside Health Services District, Co-investigator (\$40k)
2007-08 **Nerang TOD feasibility study**, Queensland Development Research Foundation
(\$120k)
-

Plenary Speakers



Dr Esther Achieng Onyango

Current appointment

Proven track record in systems approach and integrated climate change and vector borne disease risk assessments. Studies for sustainable adaptation strategies. Specific areas include climate change and vector borne disease risk assessments, multi-stakeholder engagement, community knowledge and information needs assessments and translating research into policy. Experience working with government to design and implement climate change adaptation strategies.

Highly competent researcher in quantitative analytical and qualitative methods with proven ability to conduct independent research. Proven capacity to conceptualise, examine and integrate global issues to develop solutions. Competent in setting objectives, planning and handling medium to large class sizes through tutoring and teaching. Experienced in scientific and technical writing. Experienced in project planning and management throughout. Demonstrated capacity to lead and manage staff, with a strong focus on collaboration and client needs.

Telephone : +61 452 069 916

Email : e.onyango@griffith.edu.au

Education & qualification

Doctor of Philosophy, School of Environment, Griffith University, Australia, 03/2013 – 09/2017

Research interests

Avid reader and traveler

Amateur photographer

Keen interest in multi-ethnic arts and culture

Plenary Speakers



Professor Wah-Yun Low

Current appointment

Professor of Psychology at the Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia. She was the Head of the Research Management Center at the Faculty of Medicine, and she was also the former Chair of the University of Malaya Research Ethics Committee. Prof Low is actively engaged in teaching, research, service and consultancy work both locally and overseas. She teaches both the undergraduates and postgraduate students at the Faculty.

She served as a research consultant for international agencies, private companies, non-governmental organizations as well as to the local authorities. She is also professionally affiliated to a number of learned societies

Telephone : 603-79675729/39

Email : lowwy@um.edu.my

Education & qualification

She graduated with a BA (Hons) in psychology from the Universiti Kebangsaan Malaysia, and subsequently obtained her MSc and PhD in medical psychology from the University of Surrey, Guildford, England.

Research interests

Her research interests revolve around psychological aspects of health and illness, sexual and reproductive health, HIV/AIDS, health promotion, aging and men's health. She published over 300 peer reviewed articles in journals and has authored and co-authored 20 books and book chapters. Prof Low is currently the President-elect of the Asia Pacific Academic Consortium for Public Health (APACPH), and also the Editor-in-Chief of the Asia-Pacific Journal of Public Health (a SCOPUS and ISI-indexed journal).

Plenary Speakers



Professor Tjandra Y. Aditama

Current appointment

Chairman, National Institute of Health Research and Development, Ministry of Health, Indonesia. Professor Tjandra is the Responsible Person for the National IHR Focal Point in Indonesia, and was involved in Indonesia's response to H5N1 events and the 2009 influenza H1N1 pandemic. Prof Tjandra was also temporary adviser for several WHO activities and a member of the Review Committee on the functioning of the IHR (2005) and assessment of the international preparedness and response to the pandemic of influenza [H1N1] 2009

Email :

Education & qualification

Professor Tjandra has been Professor of Pulmonology and Respiratory Medicine, Faculty of Medicine, University of Indonesia, and DTM&H in London (LSHTM) and also Adjunct Professor in the Centre for Environment and Population Health, Griffith University, Australia.

Research interests

He has authored more than 100 publications. Professor Tjandra has been involved in the health sector in government management positions and as an academic researcher. After finishing his medical studies, he worked as the head of health centers in several municipalities. He did his specialist training in pulmonology and respiratory health (infection consultant) at the University of Indonesia. He was the Medical Director of Persahabatan Hospital Jakarta in early 2000s.

Plenary Speakers



Prof. dr. Ali Ghufron Mukti, M.Sc., Ph.D

Current appointment

Director General of Science, Technology and Higher Education Resources, Ministry of Research, Technology and Higher Education Republic of Indonesia.

Email :

Education & qualification

PhD in Faculty of Medicine, University of Newcastle, Australia, 2000

Research interests

- | | | |
|------|---|--|
| 2018 | Magic Realism: The Process of Recentralisation in Indonesia through the Introduction of National Health Insurance (submitted) | Health Policy (submitted) |
| 2018 | Ability to pay and willingness to pay for national health insurance in a developing economy: a pilot study of the informal occupational sector in Indonesia | Health Policy and Planning Journal (Manuscript) |
| 2018 | Soursop Fruit (Annona Muricata Linn) Does Not Increase Serum Potassium Levels and Not Significant in Cardiovascular Risk Improvements | Journal of The Medical Sciences (Submitted) |
| 2018 | Apoptosis-Inducing Effect of Fucoxanthin before and after Microencapsulation on Human Lung Cancer (H1299) Cell Line | Journal of Bioscience and Bioengineering (Submitted) |
| 2018 | The Unmet Need of Stroke Patient in Indonesia: Is Home care a cost-effective alternative? | Manuscript |
-

Plenary Speakers



Prof. Dr. H. Jusuf Irianto, M.Com.

Current appointment

Director World Universities Association for Community Development,
Universitas Airlangga, Indonesia.

Email :

Education & qualification

Bachelor of Social Politics from Airlangga University (1989). Master in Advanced Human Resource Management from the School of Economics and Commerce of the University of New South Wales Sydney (1999). Doctoral Program at Brawijaya University Malang (2006)

Research interests

Innovative and Sustainable Global Collaboration for Valuable Public Health in Community
Strategic issues of human resource development

Small industry in the perspective of coaching and development

Management of public sector human resources in Indonesia

Competency-based human resource management for public services

Public service innovation

Transforming organizational management

Plenary Speakers



Dr. Nyoman Anita Damayanti, drg., M.S.

Current appointment

Coordinator of the doctoral study program at the Faculty of Public Health, Airlangga University

Telephone : +62818518232

Email : nyoman.ad@fkm.unair.ac.id

Education & qualification

Doctoral program, Airlangga University

Area of Expertise

Human resource management

Health policy and administration

Health planning and evaluation

Health sector productivity

Research interests

1. Development of health programs
 2. Program planning and evaluation
 3. Human resource management and development on health care services
 4. Quality improvement on health care services
 5. Family health based on Continuum of healthcare
 6. Maternal and child health
-

Plenary Speakers



Trias Mahmudiono, S.KM, MPH(Nutr.), GCAS, PhD

Current appointment

Department of Health Nutrition, Faculty of Public Health, Airlangga University

Telephone : +6281554219427; 031 5964808; 031 5964809

Email : trias-m@fkm.unair.ac.id

Education & qualification

PhD (Public Health Nutrition), Kansas State University, 2012 – 2016

Research interests

- | | | |
|---|----------------------|--|
| Dietary diversity in agricultural and coastal area as potential source for the prevention of child stunting in Sidoarjo district (1 st and Corresponding Author) | Vol. 10, No. 3, 2019 | Indian Journal of Public Health Research and Development (SCOPUS Q4) |
| Household food insecurity as a predictor of stunted children and overweight/obese mothers (SCOWT) in urban Indonesia. (1 st and Corresponding Author) | Vol. 10 No.5, 2018 | Nutrients (SCOPUS Q1) |
| The effectiveness of nutrition education for overweight/obese mother with stunted children (NEO-MOM) in reducing the double burden of malnutrition. (1 st and Corresponding Author) | Vol. 10 No.12, 2018 | Nutrients (SCOPUS Q1) |
| Comparison of maternal nutrition literacy, dietary diversity, and food security among households with and without double burden of malnutrition in Surabaya, Indonesia. (1 st and Corresponding Author) | 24(3): 359-370, 2018 | Malaysian Journal of Nutrition (SCOPUS Q4) |
| The antioxidant activity and organoleptic properties of soursop leaf tea (<i>annona muricata</i> L.) and moringa leaf (<i>moringa oliefera</i> L.) in combination with guava leaf (<i>psidium guajava</i>). (Co-Author) | Vol. 9, No. 11, 2018 | Indian Journal of Public Health Research and Development (SCOPUS Q4) |
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Theme I: Contemporary public health challenges: Populations, settings, and issues

No	Last Name	First Name	E-mail	Title
1.	Abdullah	Asrina	Asrianaabdullah07@gmail.com	Biomarkers of Maternal Environmental Enteric Dysfunction are Associated with Shorter Gestation and Reduced Length in Newborn Infants in Makassar City, Indonesia: A Systematic Review
2.	Afiyah	Rahma	rahma032.unhas@gmail.com	The Role of Oxidative Stress and Maternal Multiple Micronutrient Supplementation in Pregnancy Outcomes: Literature Review
3.	Ainy	Asmaripa	asny_plbg@yahoo.com	Potential Barriers in Implementing Local-Food Based Complementary Feeding Practice
4.	Amalia	Rizki	amalia24@unusa.ac.id	Midwifery Skill in Examining Inter-Rectus Distance (IRD) of Postpartum Women
5.	Amraeni	Yunita	zahra.kahfi@gmail.com	A Matriarchal and Patriarchal Traditions on Women's Autonomy in Making Decision on Contraception: Qualitative Analysis in Indonesia
6.	Andayani	Qurnia	qurnia.andayani-13@fkm.unair.ac.id	What Factors are Associated with Oléen in Madura Tribe
7.	Armunanto	Armunanto	armunanto_armunanto@gmail.com	An Analysis on the Local Regulation of Early Initiation And Exclusive Breastfeeding as Countermeasure to Stunting with Cultural Values in Klaten and Magelang-Indonesia
8.	Bankole	Elijah		Affordability and Availability of a Healthy Food Basket: Essential data to inform policy and advocacy actions to improve access to healthy food
9.	Budiarti	Astrida	as3da_ns@yahoo.com	Correlation between Parenting towards Smartphone Addiction of Elementary School MI Ma'arif NU Ngering, Gempol Sub District, Pasuruan, Indonesia
10.	Chaigarun	Supaporn	s_chaigarun@yahoo.com	Toxicity of BT-5020B-EX (1B-45-A) on Nile Tilapia (<i>Oreochromis niloticus</i>)
11.	Cortes-Ramirez	Javier		The association of coal mining with hospitalisations in the general population in Queensland

12.	Darsini	Darsini	darsiniwidyanto4@gmail.com	Risk Factors for the Waist Circumference Condition exceed the Normal Limit: Systematic Review
13.	Dewi	Erika	erika.untari.dewi-2018@fkm.unair.ac.id	The Factors Affecting Hardiness in Cancer Patients in the Indonesia Cancer Foundation Surabaya
14.	Fadjriah	Rasyika	Rasyika.nurul@yahoo.com	Practice of Post-Erathquake Exclusive Breastfeeding at Evacuation Site in Palu City, Indonesia.
15.	Fauzan	Fauzan	fauzan.akprdgl@gmail.com	Comparison of The Quality of Life between the Eldery People who Live in Temporary Shelters and not in Temporary Shelters Post Natural Disaster in Palu City
16.	Hannan	Mujib	mujib@wiraraja.ac.id	Elderly's Blood Tension Affected Their Daily Sleeping Quality
17.	Harun	Haerani	haeraniharun.unhas@gmail.com	Multiple Micronutrient Supplement and Pregnancy Outcome: Literature Review
18.	Herdiani	Novera	novera.herdiani@unusa.ac.id	The Relationship of Age and Body Mass Index with Hypertension in Elderly in RW 03 Kelurahan Gayungan Surabaya
19.	Ibnu	Indra	in.fajarwati.ibnu-2018@fkm.unair.ac.id	The Describe of Risk Behavior Sexual Intercourse in Dating Relationship on Adolescents in Makassar City
20.	Ibnu	Ismi	ismiibnu@unja.ac.id	Use of Diversity Scores and Nutritional Right for Diet Quality Measurement: Relation with Nutritional Status of Pregnant Women in South Sulawesi
21.	Ilmiah	Widia	widiailmiah86@gmail.com	Secondary Appraisal and Coping Strategy to Increase Adherence ARV Medication among PLWH
22.	Ilmiah	Widia	widiailmiah86@gmail.com	Indonesia Mother's Knowledge and Skill towards Sexuality Education on Preschool by Audio Visual (AVA)
23.	Jones	Lisa		Exploring factors shaping expectant mothers' experiences accessing Antenatal Care in Surabaya, Indonesia
24.	Kyere	Paul		Optimizing public health nutrition for sustainable global prosperity: how significant are school nutrition interventions?
25.	Layuk	Semuel	semelayuk@gmail.com	School Bag Weight and the Occurance of Back Pain among Elementary School Children in Manado City

26.	Lestari	Retno	retno.lestari-2017@fkm.unair.ac.id	Impact of Social Capital, Demographic Factors and Coping Strategies to Community Adaptation in Supporting People with Severe Mental Illness
27.	Martiana	Tri	tri.martiana@fkm.unair.ac.id	Determinants of Occupational Disease in Harbour Workers in Indonesia
28.	Martini	Santi	santi-m@fkm.unair.ac.id	Burden of Disease for Smoking Attributable Disease
29.	Maryiantari	Ellyza	ellyza.setya.maryiantari-2018@fkm.unair.ac.id	Analysis of Health Risk and Respiratory Complaints in Footwear Craftsman Exposed to Toluene Vapour in Surabaya, Indonesia
30.	Miranti	Miranti	myra_nting@yahoo.co.id	Relationship between Sanitation to Pregnancy using Multiple Micronutrient (MMN) Approach in Banggai District, Indonesia: A Systematic Review
31.	Nimri	Emad		Cultural and linguistic diversity and ageing in Australia: challenging effective aged care services in the 21st century
32.	Nur	Rosmala	malanur_id@yahoo.com	Determinants of Unmet Need and Impact on Women Reproductive Health
33.	Pane	Masdalina	masdalina.pane@gmail.com	Diphtheria Outbreak in Indonesia, December 2017; ORI a Lesson Learn to Large Scale Vaccination Program
34.	Palutturi	Sukri	sukritanatoa@gmail.com	Promoting Healthy Traditional Markets Through The Application Of Ottawa Charter Framework In Indonesia
35.	Pradnyawati	Luh	pradnyawati86@gmail.com	Factors Affecting the Occurrence of Stunting in Kedisan Village, Tegallalang District, Gianyar Regency, Bali Province
36.	Rasido	Ikhlas	Ikhlas0910@gmail.com	Mental Health and Intervention of Tadulako University Students after Disaster: Earthquake, Tsunami, Liquefaction in Palu, Province of Central Sulawesi, Indonesia
37.	Resubun	Theresia	theresiafrskm@yahoo.com	Qualitative Analysis of Financing of HIV/AIDS Program in Jayawijaya District, Papua Province
38.	Reviani	Nia	revianinia2gmail.com	Pre-Service Training Program for Medical Students: Improving the Quality of Healthcare Personnel in Family Planning and Reproductive Health Services

39.	Roche	Elisha	e.roche@griffith.edu.au	Health outcomes reflect the social gradient: The case of vision screening in Queensland
40.	Santi	Dwi	dwi.rukma.santi-2019@fkm.unair.ac.id	Cross Sectional Study: Psychosexual Development and Masturbation Behavior of Adolescent at Surabaya City-East Java Province-Indonesia
41.	Sardjoe	Fitri	fitri270167@yahoo.co.id	The Relationship of Ergonomic Risk Factors with Musculoskeletal Disorders (MSDs) Complaints in Workers of Machine Workshop
42.	Setyowati	Anggi	anggi.setyowati-2018@fkm.unair.ac.id	Psychometric Properties of the Indonesia Version of the Sleep Hygiene Index in Adolescents
43.	Shofiya	Dian	dian.ofiya-2018@fkm.unair.ac.id	Nutritional Status before Pregnancy, Family Income, and Early Breastfeeding Initiation as Determinants of Successful Exclusive Breastfeeding for Infants Participating in the First 1000 Days Assistance Program in Surabaya City
44.	Sincihu	Yudhiakuari	yudhiakuari@ukwms.ac.id	Hearing Loss Causes a Decrease in Cognitive Abilities of Shipyard Employees
45.	Sirasa	Fathima		Dietary habits of urban living pre-school children in Sri Lanka: Do they meet recommendations?
46.	Soleha	Umdatus	umdatatus.soleha.t.m.kes-2018@fkm.unair.ac.id	Saltwater Fish Consumption Pattern and Incidence of Hypertension in Adults a Study of the People in Gresik Coast, Indonesia
47.	Sulistina	Dewi	dewiratnasulistina@gmail.com	Rhodamine-B Increases Cell Apoptosis Cerebellum and Brainstem Tissue in Rattus Norvegicus related regard to Impaired Coordination and Accuracy of Motor Function, Motor Learning, Sleep-Wake Cycle Disorders, Awareness, Respiratory, and Cardiovascular Control, Impaired Facilitation of Communication between Brain Tissue
48.	Sumarni	Sumarni	sumarnidr@gmail.com	Smartphone Technology to Controlling Obesity in Adolescent: A Literature Review
49.	Susilo	Cipto	cipto.susilo70@gmail.com	Behavior Factor Analysis of ACS Patients to Overcome Incidence of Chest Pain in Pre-Hospital Phase
50.	Susilowati	Endang	endangits18@gmail.com	The Influence of Organic Waste Management on Infection Disease Incident Transmitted through Disease Vector

51.	Susojo	Anita	anita.dewi.prahastuti-2016@fkm.unair.ac.id	A Novel Assesment Tools for Early Predicting Green Tobacco Sickness: A Case Control Study on Tobacco Farmers in Indonesia
52.	Walker Zlatanovski	Tania		Influence of nutritional status on academic achievement of students in Pamplona, Colombia.
53.	Widati	Sri	widatisantoso@gmail.com	Success Story of Drafting the Smoke Free Regulation in Blitar District Indonesia
54.	Widiyawati	Wiwik	widiyawatiwiwik@gmail.com	The Correlation between Family Support and Adaptability of Outpatients Diagnosed with Post Treatment Halucination at Mental Health Unit, Menur Hospital, Surabaya
55.	Widodo	Tri	tri.widodo-2018@fkm.unair.ac.id	The Influence of Mentoring Activities on Maternal Weight Gain among Pregnant Woman in West Surabaya Area
56.	Wootten	Steven		Self-Identified Motivators for Physical Activity: Perspectives of Ambulant Nursing Home Seniors
57.	Yudhastuti	Ririh	ririh.unair@gmail.com	Preliminary Study of Dengue Fever Incidence in Bali Province 2012-2016
58.	Yuniati	Faiza	Faizayuniati@yahoo.com	Do Household Factor affect the Quality of Life of the Productive Age Population?
59.	Yunus	Yusmaniar	yusmaniarys@gmail.com	Air Physical Quality Relationship in the Room and Individual Characteristics Occurring of Sick Building Syndrome (SBS) in Sharia and Fad Division Staff in the Soe Bank X of 2018

Theme II: Innovative Strategies and Healthy Urban Living

No	Last Name	First Name	E-mail	Title
60.	Abbas	Muhammad Zaheer		Sustainable Development, Public Health, Access to Medicines and Failures of the Current Innovation Model
61.	Aminde	Leopold	amindeln@gmail.com	Modelling the Cost-Effectiveness of Dietary Salt Reduction Interventions to Prevent Cardiovascular Disease in Cameroon
62.	Amri	Imtihanah	imtihanahamri@gmail.com	Comparison of Disaster Preparedness between Counseling with Audio-Visual and Visual Media in Elementary School Students in Sigi District, Central Sulawesi
63.	Damayanti	Lusy	lusyAD671@gmail.com	The Influence of Colostrum Adding in Toothpaste and S Ig a Factor to Prevent Early Childhood Caries in Ujung Tanah Sub District Makassar
64.	Demak	Indah	sashkata@yahoo.com	Does Consumption of Moringa Cookies Can Increase the Quality of Breast Milk Nutrition?
65.	Faris	Abdul	abdulfaris.unhas@gmail.com; abdulfaris62@yahoo.co.id	The Impact of Multiple Micronutrient Supplementation and Education on Hemoglobin Concentration in Pregnant and Neonatal Birth Weight
66.	Hamidah	Khusnul	hamidah.fitri@gmail.com	The Effect of Insulin Therapy Video as Education Media on Knowledge and Attitude in Patients with Diabetes Mellitus
67.	Hastuti	Puji	ph_ners79@yahoo.co.id	Effects of lemon Aromatherapy on the Intensity of Nausea and Vomiting due to Chemotherapy in Breast Cancer Patients in the Clinical Chemistry Room of Dr. Ramelan Surabaya
68.	Indriani	Diah	diah-i@fkm.unair.ac.id	The Maternal Referral Mobile Application System for Minimizing the Risk of Childbirth
69.	Lewa	Abd.	faridlewa75@gmail.com	The Effect of Multimicronutrient Intake and Nutrition-Based Education Apps for Mothers on the Growth and Development of Infants aged 0-6 Months
70.	Mahalia	Lamia	lamia.diang.mahalia-2018@fkm.unair.ac.id	Potency of Sweet Potato Starch (Ipomoea batatas Lamk) as Excipient in Tablet Formulation

71.	Makalew	Linda	linda.makalew@poltekkesmanado.ac.id	Lamps to Suffer Diabetes Melitus as a Biomarker in Lung Tuberculosis Infected
72.	Mustikawati	Intan	intansilviana12@gmail.com	The Effectiveness of Kangaroo Mother Care Promotion among Community Health Workers in Kampung Melayu Village, Jakarta
73.	Nurmala	Ira	iranurmala@fkm.unair.ac.id	Improving Student's Self Efficacy through Peer Education Program
74.	Octavia	Lestari	lestarioctavia@gmail.com	Association between Unmetabolized Folic Acid and Henotype of MTHFR 677 C>T and 1298 A>C of Indonesia Urban Women: East Jakarta Cohort Study
75.	Roche	Elisha	e.roche@griffith.edu.au	Workforce capacity building to improve child health: The 'Healthy Kids' program
76.	Sari	DJE	fifiteka@umg.ac.id	The Effect of Massage Counter Pressure to Pain Intensity at Dysmenorrhoea
77.	Sidabutar	Sondang	sondang_sidabutar73@yahoo.com	The Effect of Model Intervention towards the Intention of Early Detection of Cervical Cancer with Via Test
78.	Sridani	Ni	niwayansridani@yahoo.com	The Effect of Warm Compress of Red Ginger to Reduction of Blood Pressure in Hypertension Patients
79.	Sumakul	Vione D	vionesumakul@gmail.com	The Influence of Caregiver and Music Theraphy on Depression Levels of Stroke Patients at the General Hospital Prof. R. D. Kandou, Manado
80.	Sya'diyah	Hidayatus	mahisyah_sht@yahoo.com	Relationship between caring nurses and elderly loneliness in the Surabaya social service work area
81.	Tamsuri	Anas	anas.tamsuri-2018@fkm.unair.ac.id	Factors Influencing the Attention of Patient toward Audio Visual-Health Education Media at Waiting Room of Public Health Center (Puskesmas)
82.	Wahyunin	Endang	endang.uw@gmail.com	Cascade Aerator Method with Variations in the Number of Steps Against Decreased Iron (FE) Levels in Clean Water
83.	Yane	Elli	elliyanebangkele.unhas@gmail.com	Model of Educational Information Communication for Families on the Reproductive Health of Pregnant Mothers in Palu, Indonesia; A Systematic Review

Theme III: Sustainable and Healthy Urban Living

No	Last Name	First Name	E-mail	Title
84.	Adriansyah	Agus	aan.naufal87@unusa.ac.id	Analysis of the Ventilation, Clean, and Healthy Life Behavior (PHBS) Risk Levels for the Incidence of ARI: Study in the Students at the Amanatuk Ummah Islamic Boarding School Surabaya
85.	Afrida	Wiwik	wiwik.afridah-2019@fkm.unair.ac.id	An Analysis of Patient Satisfaction using the Gap of Expectation and Reality Approach in the Hijr Ismail Room of Ismail Islamic Hospital Surabaya A. Yani
86.	Amiruddin	Ridwan	ridwan.amiruddin@gmail.com	Social Media and Awareness of Smoking Hazard among High School Student in Makassar Indonesia
87.	Andrias	Dini	dien_ra@yahoo.com	Indigenous Foods are Underutilized in Food Pattern of Children Age 12-23 Months in Food Insecure Prone Area of Bangkalan, Indonesia
88.	Arini	Diyah	diyah.arini-2018@fkm.unair.ac	The Relationship between the Incidence of Stunting and the Frequency and Duration of Diarrhea and Acute Respiratory Infection in Toddler in the Working Area of Kenjeran Health Center in Surabaya
89.	Artanti	Kurnia	kurnia-d-a@fkm.unair.ac.id	The Influence of Passive Smoker have Higher Risk for Smoking Attributable Disease
90.	Astuti	Puji	widatisantoso@gmail.com	The Correlation of Depression on the Disability of Stroke Patients
91.	Azza	Awatiful	awatiful.azza@unmuhjember.ac.id	Family Food Consumption Pattern with Fetal Development: Study in the Second and Third Trimester of Pregnant
92.	Devi	Ratna	ratnadevi.unhas@gmail.com	Smoking Behavior in Women in Palu City
93.	Diana	Sulis	diana.sulis6@gmail.com	Factors High Risk and Complications of Causes of Death Mother in Mojokerto
94.	Hargono	Arief	arief.hargono@fkm.unair.ac.id	Knowledge, Ownership of Mother and Children's Health Book and Complete Basic Immunization Status in Slums and Poor Population in East Java Province

95.	Jauhari	Arief	puskaradim@gmail.com	Physical and Biology Factor with Sick Building Syndrome Subjective Complaint (Case Study RRI Banjarmasin Employee)
96.	KC	Alisha		Breaking Through Barriers and Building Disaster Mental Resilience: A Case Study in the Aftermath of the 2015 Nepal Earthquakes
97.	Keman	Soedjajadi	soedja_keman@fkm.unair.ac.id	Development New Socio-Ecological Concept of Health Behavior “Ina Djayaku Abadi” for Accelerating Decline of Maternal Mortality Rate in District of Kupang, Nusa Tenggara Timur (NTT) Province, Indonesia
98.	Khairiyatul	Raden	eer@unusa.ac.id	Description of Quality of Life (Reviewed from Relationship Aspect Social) Post Histerectomy in Puskesmas of Surabaya
99.	Lee	Patricia		Can Cancer-related Health Literacy Predict Cancer Representative Behaviors?
100.	Leida	Ida	idale_262@yahoo.com	Impact of Social Determinants at Type 2 Diabetes Mellitus in Makassar City Indonesia
101.	Phung	Dung		Climate Change and Health Impacts in the Developing Mekong Delta Region
102.	Pribadi	Eko	ekoteguh1980@gmail.com	Application of the Health Belief Model on the Intention to Stop Smoking Behavior among Youth Adult Women
103.	Rahman	Firman	firmsuryadirahman@gmail.com	Pregnancy Disorders in Female Workers at Industrial Area Sidoarjo
104.	Rahman	M. Aziz	aziz.rahman@y7mail.com	Intention to Quit Smoking: What are the Predictors among the Young Current Smokers in Bangladesh?
105.	Salmawati	Lusia	lusia_untad@yahoo.com	Surveillance Wash in Health Care Facilities to Support Post-Disaster Management in Central Sulawesi
106.	Setiawati	Yunias	setiawati@gmail.com	The Effect of Plumbum, Zinc, and Plumbum per Zinc Ratio to Children’s Temperament
107.	Shinta	Arundati	arundatishinta@yahoo.com	Friendly Environment Waste Management based on Community Empowerment as the Basis of the Health National Resilience
108.	Silitonga	Hanna	hanna.silitonga@ciputra.ac.id	Perception on Husband and Wife Relationship and HIV Risk Behavior in the Household from Housewives Infected with HIV in Surabaya

109.	Stia Budi	Iwan	Iwans7777@gmail.com	Coordinating the Growth and Development Monitoring for Toddlers at the Baloi Permai Health Center
110.	Sulistyo	Joko	jsulistiyo2211@yahoo.com	Implementing Responsive Culture in Public Health Center Clincing Sub-District North Jakarta: Case of Salted Fish Preservation
111.	Virlando Suryadinata	Rivan	rivan.virlando.suryadinata@gmail.com	Effect of Age and Weight on Physical Activity
112.	Wartiningasih	Minarni	minarni.wartiningasih@ciputra.ac.id	Analysis of Determinant Factors of Hypertension Occurrence among Teenagers and young Adults in Surabaya City
113.	Widayanti	Dini	dinizar78@yahoo.co.id	Knowledge and Attitudes Relationship with the Mother's Participation in the Test IV A Surabaya
114.	Wijono	Heru	heru.wijono-2019@fkm.unair.ac.id	Prevention of Nephropathy Diabetic using Genetic Risk Model as Predictor in Type 2 Diabetic Patients
115.	Wulandari	Kusrini	wulan_lppsdm@yahoo.com	Factors that Affect Management of Household Waste in Kedaung District of Pamulang County, South Tangerang City

Theme IV: Multi-stakeholder partnership to strengthen the health system

No	Last Name	First Name	E-mail	Title
116.	Artawan	I	i.wayan.gede.artawan-2016@fkm.unair.ac.id	The Engagement of Private Practitioners on Tuberculosis Control Program to Improve Presumptive and Cases Finding
117.	Budi Setiawan	Febri Endra	febri.en.budi-2017@fkm.unair.ac.id	Understanding Patient Satisfaction and Loyalty in Public and Private Primary Health Care
118.	Cahyadi	Rachmad	rachmad.cahyadi-2018@fkm.unair.ac.id	The Hajj Hospital Surabaya's Superior Service is based on the Highest Number of Visits and Income in the JKN Area
119.	Dwirahmadi	Febi	f.dwirahmadi@griffith.edu.au	Understanding of the operational concept of a flood-resilient urban community in Jakarta, Indonesia from the aspects of disaster risk reduction, climate change adaptation and development agencies
120.	Ernawaty	Ernawaty	ernawaty@fkm.uanir.ac.id	Brand Equity Analysis to Increase the Utilization of Health Care
121.	Fakhruzzaman	Muhammad	ruzcmc@gmail.com	Hospital Staff Acceptance toward Management Information Systems in Indonesia
122.	Ferliana	Herlin	dr.herlinferliana18@gmail.com	Determinants of Family Independence in Caring Hebefrenic Schizophrenia Patients in Menur Mental Hospital
123.	Gan	Connie Cai Ru		How Do Hospitals develop Towards 'Climate-smart' Healthcare?
124.	Guspianto	Guspianto	guspianto@unj.ac.id	Development of Integration Model Total Quality Management (TQM) and Six Sigma (SS) in Hospital Quality Management (Study of Hospitals in Jambi Province)
125.	Indiraswari	Tika	indiraswari2018@gmail.com	Health Insurance Literacy: Facebook User's Discussion and Reaction toward National Health Insurance in Indonesia
126.	Ismaniar	Nur	nurinayah.ismaniar@yahoo.com	Implementation of Home Care Service in Public Health Nursing Perspective
127.	Imaduddin	Galih		Means of Knowledge Sharing Practices: Lessons from Primary Healthcare Institutions in Indonesia

128.	Jiang	Yingying		Research on the status of multi-sector cooperation in national chronic disease comprehensive control and prevention demonstration areas in China
129.	Lopo	Christian	christian_lopo@yahoo.com	Evaluation of Public Hospital Service Quality and Performance using Servqual Method: Post Multi Disaster (Earthquake, Tsunami, and Liquefaction) in Central Sulawesi, Indonesia
130.	Lusno	Muhammad	faridlusno@fkm.unair.ac.id	Strategic Management of Early Warning System and Dengue Fever Response based on Malcolm Balridge Modifications in Trenggalek Regency
131.	Mahyuni	Eka	e79mahyuni@gmail.com	Pesticide Toxicity Prevention in Community Movement at Sumber Mufakat Village
132.	Maisaroh	Siti	maysaroh2595@gmail.com	Effect Pursued Lip Breathing: Paper Windmills and Deep Breathing Relaxation to Decrease Respiratory Frequency in COPD Patients at A.Yani Islamic Hospital Surabaya
133.	Mao	Ayan		Analysis of Disease Prevention and Control Services Provision in Public Tertiary General Hospitals in Beijing
134.	Maryam	Siti	maryammymask@yahoo.co.id	Knowledge of Pregnant Woman about Hepatitis B by Carrying Our Laboratory Test
135.	Mohd Royali	MD Sabtuah		Community Participation and Risk Communication for Dengue Prevention and Control in Malaysia
136.	Napirah	Muhammad	muhammadrymannapirah.unhas@gmail.com	Model of Non-Smoking Regional Policies in Preventing Children Smoking Habits in Palu City, Indonesia: A Systematic Review
137.	Nisa	Fauziyatun	fauziyatun.nisa@unusa.ac.id	The Role of Cadre in Exclusive Breastfeeding Village in Wonokromo Surabaya
138.	Prasetyorini	Anif	anifrini@gmail.com	The Comparison of Family Support, Corporate Image, Satisfaction, and Loyalty by Methods of Health Service Payment
139.	Rahman	M. Aziz	aziz.rahman@y7mail.com	Intention to Quit Smoking: What are the Predictors among the Young Current Smokers in Bangladesh?
140.	Rimayanti	Made	md.utaririmayanti@gmail.com	Intoxication and Incarceration: Alternatives to Indonesian Drug Policy through Public Health Perspective

141.	Rini	Tjipto	tjiptorini58@gmail.com	Implementing Responsive Culture in Public Health Center Clincing Sub-District North Jakarta: Case of Salted Fish Preservation
142.	Rizki	Muhammad	muhammad.risya.rizki-2019@fkm.unair.ac.id	An Analysis on Correlation of the Medicine Service Quality towards the Switching Costs of BPJS Kesehatan for Employees
143.	Rochmah	Thinni	thinni_nurul@fkm.unair.ac.id	Cost Effectiveness Analysis using Disability Adjusted Life Years for Cataract Surgery
144.	Sadakah	Syamsurian syah	sam_bptk@yahoo.com	Nurse Performance Model in Terms of the Value of Local Culture Philosophy and Leadership in Bima General Hospital West Nusa Tenggara-Indonesia
145.	Setiyorini	Erni	nerserni@gmail.com	Relationship between Nutrition Status and Physical Activities with Blood Glucose Levels on Elderly with Type 2 Diabetes Mellitus
146.	Siswantara	Pulung	pulung-s@fkm.unair.ac.id	What Influence the Youth Decision Using “Aplikasi Remaja Sehat?”
147.	Sutriningsih	Ani	ani.sutriningsih-2018@fkm.unair.ac.id	Nurse's Characteristics in Triage Room General Hospital of Dr. Saiful Anwar Malang
148.	Thaha	Ridwan	Ridwan_609@yahoo.com	Study of Electronic Smoker Knowledge in Communities Vaporizer in Makassar City
149.	Wahjuni	Chatarina Umbul	chatarina.uw@fkm.unair.ac.id	The Characteristic of People with Tuberculosis by Type of Treatment Selected before Diagnosed in Surabaya, East Java, Indonesia
150.	Wahyuni	Rosa	rosadwiwahyuni@gmail.com	Hospital Laboratory Management in Dealing with Disaster
151.	Widiarini	Retno	retnowidiarini24@gmail.com	Strengthening of Human Resources in Implementing Healthy Indonesia Program by Family Approach
152.	Wulandari	Ratna	ratna-d-w@fkm.unair.ac.id	Analysing Contribution of Organizational Structure in Quality Improvement Process: A Case Study in Indonesia's Public Health Centers
153.	Misnaniarti	Misnaniarti	misnaniarti@fkm.unsri.ac.id	Frequency of Inpatient Utilization Among Elderly (Multilevel Analysis Under National Health Insurance in Indonesia)

Theme I: Contemporary public health challenges:

Populations, settings, and issues

BIOMARKERS OF MATERNAL ENVIRONMENTAL ENTERIC DYSFUNCTION ARE ASSOCIATED WITH SHORTER GESTATION AND REDUCED LENGTH IN NEWBORN INFANTS IN MAKASSAR CITY, INDONESIA: A SYSTEMATIC REVIEW

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Introduction: Adverse birth outcomes, including preterm birth and stunting at birth, have long-term health implications. The relation between adverse birth outcomes and chronic, asymptomatic gastrointestinal inflammation (environmental enteric dysfunction— EED) is poorly understood. Stunting, defined as a length (LAZ)/height-for-age z score >2 SDs below the WHO Child Growth Standards media, remains a pervasive form of undernutrition globally, affecting ~155 million children <5 y of age. Stunted children are not only short for their age but are at an increased risk of developing the “stunting syndrome”. An estimated 20% of stunting has in utero origins driven largely by intrauterine growth restriction, premature births, or both. The purpose of this systematic review is examine the relation between maternal EED and adverse birth outcomes in a sample of pregnant Makassar women and their newborn infants.

Methods: This research used a systematic literature review. Various references were collected from online database including reports, journals, and books in the last 10 years. The journals were mostly from the scholarly journals. The articles were screened according to the research objectives. The keywords used are environmental enteric dysfunction, inflammation, intestinal permeability, intestinal biomarkers, dual sugar absorption test, L:M test, anti-flagellin antibodies, anti-LPS antibodies, birth outcomes

Results and Discussions: This study showed that maternal EED biomarkers, specifically the L:M ratio and serum concentrations of anti-flagellin and anti-LPS Igs measured at ~18 weeks of gestation, are associated with adverse birth outcomes, primarily shorter gestation and reduced infant length at birth. To our knowledge, this is one of the first studies to measure EED biomarkers in a sample of pregnant women as well as the first to examine the relation between EED biomarkers and adverse birth outcomes.

Conclusions: This paper concludes that a maternal anti-flagellin and anti-LPS Ig concentrations measured at ~18 weeks of gestation were significantly associated with shorter gestation and reduced infant length and LAZ at birth in a sample of pregnant Makassar women and their newborn infants. Further recommendation will be provided.

Keywords: environmental enteric dysfunction, intestinal biomarkers, dual sugar absorption test, anti-LPS antibodies, birth outcomes.

THE ROLE OF OXIDATIVE STRESS AND MATERNAL MULTIPLE MICRONUTRIENT SUPPLEMENTATION IN PREGNANCY OUTCOMES: LITERATURE REVIEW

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Introduction. Oxidative stress occurs due to an imbalance between oxidants and antioxidants cause damage at the molecular level. An increase in metabolic activity and a decrease in anti-oxidative activity in pregnancy causes excessive oxidative stress leading to complications of pregnancy outcome. Some micronutrients act as antioxidants can stabilize oxidative stress. Maternal Multiple Micronutrient supplementation can improve pregnancy outcomes through its role in preventing oxidative stress. This study summarizes the role of oxidative stress and maternal Multiple Micronutrient supplementation in pregnancy outcomes.

Methods. Using literature review from various internationally reputed literature sources indexed by Scopus, Pubmed, EBSCO, Elsevier, Proquest, Google scholar published in the last 10 years (2009-2019). Literature is chosen based on the research objectives.

Results and Discussions. From several literature studies it was found that oxidative stress affects the occurrence of pregnancy complications, including: misscariage, preterm birth, Intra Uterine Growth Restriction (IUGR) and stillbirth. Factors that influence oxidative stress include exposure to environmental pollution, unhealthy life style and deficiency of some antioxidant micronutrients. Some studies also showed that Multiple Micronutrient supplementation in pregnant women plays a role in reducing oxidative stress in pregnancy and improves pregnancy outcomes.

Conclusions. Oxidative stress leading in poor pregnancy outcomes, and it is needed to prevent an increase in oxidative stress in pregnancy by giving Multiple Micronutrient supplementation to pregnant women

Keywords: Oxidative stress, Multiple Micronutrient, Pregnancy Outcomes.

POTENTIAL BARRIERS IN IMPLEMENTING LOCAL-FOOD-BASED COMPLEMENTARY FEEDING PRACTICE

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Introduction: Local-food-based complementary feeding (LFBCF) practice may be an important approach in the growth and development of children aged 6 to 24 months. The purpose of this study was to describe potential barriers in implementing local-food-based complementary feeding practice among mothers in Banyuasin regency, Indonesia.

Methods: A qualitative study was conducted by using 24 semi-structured interviews and a focus group discussion. Participants were 24 mothers of children aged 6 to 24 months in Banyuasin regency, Indonesia that recruited purposively. Data was analyzed using thematic analysis.

Results and Discussion: The majority of the mothers were 20-30 years old. All participants agreed to implement LFBCF practice because local food ingredients are easy to find in the local area at an affordable price. Community cadres assisted village midwives in integrated health post service such as disseminating information concerning local food recipes and facilitating information exchange among mothers regarding complementary feeding practice. Three main emerged themes identified from this study were: mother's knowledge about local food recipes, mother's knowledge about healthy complementary food preparation, child eating behavior.

Conclusions: Encouraging mothers in LFBCF practice is an effort to improve child nutrition status and the role of community cadres are needed.

Keywords: barriers, complementary feeding, local foods, mothers, community cadres

MIDWIFERY SKILL IN EXAMINING INTER-RECTUS DISTANCE (IRD) OF POSTPARTUM WOMEN

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Introduction: Examination of the degree of abdominal cervical diastasis in postpartum mothers is carried out by professionals (midwives) in order to improve the degree of postpartum maternal health. Antenatal services that are carried out regularly and comprehensively can detect early abnormalities and risks that may arise during pregnancy, so that abnormalities and risks during the puerperium can be overcome quickly and appropriately. The purpose of this study was to analyze the skills of midwives in examining the degree of abdominal rectification diastasis.

Methods: This research is a qualitative study using purposive sampling method. The study was conducted from 1 April 2019 to 30 May 2019 with in-depth interviews and observation techniques. The research informant was the implementing midwife in the Independent Practice of Midwife Mei Kurniawati.

Results and Discussions: The results of the analysis showed that all midwives had never received training or outreach about examining the degree of abdominal certification in postpartum mothers and so far there had never been an abdominal certification degree examination for postpartum mothers, midwives did not know the purpose and benefits of examining diastasis degrees, abdominal certificates in puerperal women according to the standard, not all midwives comply with the puerperal service standards that have been set, there are still inadequate facilities and infrastructure to carry out checks on abdominal fracture diastasis according to standards, midwives have sufficient knowledge about risk detection and are able to detect risk to the puerperal mother.

Conclusions: Training and outreach to all implementing midwives related to the examination of the degree of abdominal certificate in postpartum mothers.

Keywords: Midwife Skills, DDR examination.

A MATRIARCHAL AND PATRIARCHAL TRADITIONS ON WOMEN'S AUTONOMY IN MAKING DECISION ON CONTRACEPTION: QUALITATIVE ANALYSIS IN INDONESIA

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Introduction: The issue of gender inequality in reproductive health has a role in determining contraceptive use in women. Gender issues related to inequality in decision making are the main context in family planning interventions. The purpose of this study is to assess women's tradition on participation in decision making for contraception in matriarchal and patriarchal traditions.

Method: A Qualitative study was conducted two region in Indonesia representative for matriarki tradition in Sumatera and Patriarki Tradition in Sulawesi. The study involved 40 women and 40 men of childbearing age (15-49 years) with married categories. Trained female and male research assistants conducted semi-structured interviews with a subset of women in a private setting and responses were manually recorded. Interview notes were translated and uploaded to a qualitative software program, coded, and thematic content analysis was conducted.

Results and Discussions: women with a matriarchal culture are more free to decide on the use of contraception, while women with a patriarchal culture are more likely to ask permission from the husband first. However culture is not fundamental because educational factors, perceptions and side effects also determine the decision to use contraception. a lack of male knowledge about contraception was also found in this study due to the notion that contraception is a woman's business.

Conclusions: Women's autonomy in matriarchal culture is more dominant than patriarchy. It is important to consider these multi-faceted influences on decision-making for contraception in order to improve provision of health services and to offer useful insights for subsequent programmatic and policy decisions.

Keywords: Contraception, Qualitative, Autonomy, Matriarchal, Patriarcha

WHAT FACTORS ARE ASSOCIATED WITH OLÉEN IN MADURA TRIBE

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Introduction: *Oléen* is a condition of the newborn until 2 years toddler with growth and developmental problems that are known and practiced by Madurese specifically. This study aimed to analyze the factors that are associated with *oléen* in Madura tribe. Shamans, Health Staff, Cultural and religious figures, and Mothers of *oléen* child in Bangkalan Regency are the informants of this qualitative study.

Methods: Phenomenology approached is used to explore the thinking process from the informant as the first people. Data collection of this study used in-depth interview, focus group discussion and observation field by capturing videos, pictures and audios as primary data and medical record, demographic and health status profile as secondary data and then triangulated. Qualitative data were analyzed by Nvivo12.

Results and Discussions: Results showed that most of them get treatment from shamans as the main healer because Madurese's perception that *oléen* is not medical issue but another. Shaman gives them a massage, herbal drink and amulet for special need, and food taboo that emphasized their intake. However, few of health staffs said that they are lack competence to do standard child growth and development service. Low sanitation and rearing practices lead to food intake that isn't diversity and safety, and they don't breastfeed exclusively. The focus should be on the improvement of mother's child growth and development knowledge and rearing practices.

Conclusions: The improvement of health staff skills to provide service for *oléen* child as child growth and development services in Madura tribe.

Keywords: *oléen*, Madura, child, growth and development, phenomenology study

AN ANALYSIS ON THE LOCAL REGULATION OF EARLY INITIATION AND EXCLUSIVE BREASTFEEDING AS COUNTERMEASURE TO STUNTING WITH CULTURAL VALUES IN KLATEN AND MAGELANG, INDONESIA.

Armunanto

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Introduction: Stunting is a nutritional problems that up to this time threaten the health of Indonesian children. Government policy is the government's effort to manage the society to solve the nation's problem. Klaten and Magelang city has designed the early initiation and exclusive breastfeeding regional regulation, the positive impact of this regulation is the decrease of stunting prevalence.

Methods: The research was done in Klaten district and Magelang city, Central Java province. The research was done with qualitative method.

Results and Discussions: The factors that support the implementation of the local regulation in Klaten district and Magelang city are: a) The local culture which, up to now, become a custom in the society that mothers and infants should stay at home until 40 days after birth; b) Paternal tradition which makes the people follow the instructions of the health workers or other figure they respect; c) Practical and economical customs which are understood and practiced by young mothers.

Conclusions: The beneficial recommendations for strenghtening the development of the local regulation in similar cultural characteristics: 1) Local regulation revisions and reorganization of the implementers at substantial and institutional aspect to adapt with the local condition; 2) Increase the capacity of health workers and cadres in implementing the local regulation; 3) Sufficient funding from the local government budget.

Keywords: stunting, early initiation, exclusive breastfeeding

AFFORDABILITY AND AVAILABILITY OF A HEALTHY FOOD BASKET: ESSENTIAL DATA TO INFORM POLICY AND ADVOCACY ACTIONS TO IMPROVE ACCESS TO HEALTHY FOOD

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Introduction: The aim of this study was to determine the cost, affordability and availability of a healthy food basket in the Sunshine Coast Region of Queensland, Australia.

Method: Healthy food baskets were constructed based on the Australian Dietary Guidelines for a three-person household, the average household size in the study region. All stores of the three biggest supermarket chains in Queensland - Woolworths, Coles and IGA- were visited. Stores were categorised by remoteness (major cities and inner regional areas) and socio-economic status, using the Accessibility/Remoteness Index of Australia and the Index of Relative Socioeconomic Disadvantage respectively. The difference in the cost of the healthy food basket across socio-economic and remoteness categories was assessed, as well as the difference in mean cost across levels of food availability. Affordability of the food basket was also calculated for the reference family of three.

Results and Discussions: The cost of the fortnightly healthy food basket in the Sunshine Coast region was \$258.30. This is \$69.74 cheaper than the average cost in Queensland. In terms of cost disparity, the healthy food basket was significantly costlier (\$394.30) in areas where the basket items were scarce. This scarcity was mostly observed in major cities. Regarding affordability, the welfare-dependent reference family would need to spend 16.7% of their income to purchase the healthy food basket, 6.7% more than the proportion needed by the average Sunshine Coast household.

Conclusions: Inner regional residents have easier access to healthy food as the basket items were more available in their areas. Therefore, policy and advocacy actions should focus on increasing supply of healthy food, especially to major cities, as an efficient and direct approach towards positively influencing food choices.

Keywords: Food preferences, healthy choices, food insecurity, nutrition policy, Sunshine Coast

THE CORRELATION BETWEEN PARENTING STYLES AND SMARTPHONE ADDICTION AMONG PRIMARY SCHOOL STUDENTS AT MI MA'ARIF NUNGERING, GEMPOL DISTRICT, PASURUAN REGENCY

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Introduction: Smartphone addiction is the behavior of attachment or dependency on smartphones. The use of smartphones for a long period will affect children's physical and psychological conditions. The purpose of this current study was to determine the correlation between parenting styles and the level of smartphone addiction among elementary school children.

Method: The research design was correlative analytics with a cross-sectional approach. The population was the elementary school students of 4th, 5th, and 6th grades at MI Ma'arif NU Ngering, Gempol District, Pasuruan Regency with 70 students as the sample (respondents). The instruments of the data collection were the scale of Parental Authority Questionnaire (PAQ) and the scale of smartphone addiction. The data analysis used the Chi-Square test ($p = <0.05$).

Results and Discussions: The results showed that most of the students had parents with a democratic parenting style (48.6%) and most of the students experienced moderate addiction (54.3%). The Chi-Square test showed that there was a significant correlation between parenting styles and smartphone addiction with the result of $p = 0.042$.

Conclusions: This current study implied that proper parenting style may reduce the students' addiction to smartphones. Therefore, parents should apply a good and effective parenting style.

Keywords: parenting styles, parents, smartphone addiction

TOXICITY OF CARBON MASTER BATCH ON NILE TILAPIA (*OREOCHROMIS NILOTICUS*)

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Introduction: Adverse effects of Carbon Master Batch have been in environment and human health. The purpose of this study was to investigate suitable intensity level of mortality among 1-month tadpoles of Nile Tilapia in 96 hours.

Method: The experiment was studied intensity levels included 5 levels: 0 (control), 25, 50, 100, and 200 mg/L. Data analysis included descriptive statistic.

Results and Discussions: The results revealed that no mortality in all intensity levels among the tadpoles of Nile Tilapia between 3 and 24 hours after releasing the tadpoles of Nile Tilapia. However, the tadpoles of Nile Tilapia died 3.33% in 50 mg/L of intensity level at 48 hours. Intensity of Carbon Master Batch caused 50% of mortality among tadpoles of Nile Tilapia in 48, 72, 96, 120, and 144 hours respectively (543.79, 206.48, 191.32, 161.82, and 136.55 mg/L respectively). The mortality rate of the tadpoles of Nile Tilapia was much low in all intensity level. The finding showed the more mortality, the more intensity level, and the more time. The highest mortality rates of the tadpoles were in 600 -1000 mg/L of intensity level.

Conclusions: Further research should be studied the contamination of Carbon Master Batch on Nile Tilapia by Gas Chromatograph for laboratory comparing with maximum residue limit (MRL) for assessing environmental health impact assessment(EHIA) .

Keywords: toxicity, carbon master batch, Nile Tilapia

THE ASSOCIATION OF COAL MINING WITH HOSPITALISATIONS IN THE GENERAL POPULATION IN QUEENSLAND

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Introduction: Although Queensland is a major supplier in the global coal market, no previous medical epidemiological studies have investigated the morbidity of the general population in areas with coal mining activities. This study estimated the association of coal production with hospitalisation due to eleven groups of disease, in the Queensland Local Government Areas (LGAs).

Methods: A Bayesian spatial hierarchical model was implemented to first identify spatial clustering of Standardised Hospitalisation Ratio (SHR) for each disease group and then estimate the risk of hospitalisation associated with coal production after adjusting for sociodemographic covariates.

Results and Discussions: The analysis spanned 125 Queensland LGAs and 2,530,511 hospitalisations from 1996 to 2010. There was an increased risk of 1.71 (95% CI 1.37 - 2.11) and 1.41 (1.14 - 1.75) for diseases of the respiratory system in females and males, respectively. An increased risk of hospitalisation due to diseases of the circulatory system [1.61(1.29 - 1.99)], diabetes [1.28 (1.03 - 1.59)] and chronic respiratory disease [2.74(1.44 - 5.21)] was found only in females.

Conclusions: This study provides statistical evidence that the Queensland general population in coal mining areas have increased risk of hospitalisation for diseases of the respiratory and circulatory systems and diabetes, and that sex differences in risk exist.

Keywords: Bayesian hierarchical spatial model, coal mining health impacts, morbidity, public health, spatial epidemiology

RISK FACTORS FOR THE WAIST CIRCUMFERENCE CONDITION EXCEED THE NORMAL LIMIT: SYSTEMATIC REVIEW

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Introduction: Improving public health is one of the achievements of the program carried out by a country. One of the inhibiting factors for achieving development targets in Indonesia is the triple burden disease, namely high morbidity rates due to classical infectious diseases, high rates of non-Communicable Disease morbidity and mortality, and the emergence of new emerging Infectious diseases. Changes in people's lifestyles that do not pay attention to healthy lifestyles, resulting in cases of Non-Communicable Diseases such as Stroke, Hypertension, Coronary Heart Disease, Cancer and Diabetes from year to year actually rank highest. The World Health Organization determines the limits of the waist and hip circumference for central obesity in Asian countries including Indonesia in men is 90 cm and in women 80 cm. Obesity is a risk factor for increased blood pressure and triglyceride levels, which subsequently becomes a risk factor for cardiovascular disease.

Methods: The research design used is a systematic review. The preparation of systematic reviews is done by searching articles using electronic databases google scholar, Science Direct, Pubmed, and Proquest. The next article is reviewed for analysis.

Results and Discussions: The analysis found that Waist Circumference conditions exceeding safe limits increased the risk of hypertension, type 2 diabetes mellitus, hypercholesterolemia, joint pain and low back pain, hyperuricemia.

Conclusions: an integrated understanding and collaboration between the government, health institutions and educational institutions is needed to disseminate information to the public about the risk factors for Waist Circumference beyond safe limits to reduce community morbidity.

Keyword : Waist Circumference, risk factor, cardiovascular disease

THE FACTORS AFFECTING HARDINESS IN CANCER PATIENTS IN THE INDONESIAN CANCER FOUNDATION SURABAYA

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Introduction : Excessive fear and anxiety will be felt by cancer patients who do not have hardiness. Hardiness becomes a personality characteristic that causes individuals to become stronger, resistant, and optimistic to deal with pressures related to the cancer disease. There are several factors that influence hardiness, namely social support, parenting, and self-confidence. The objective of this study was to determine which factors influence hardiness in cancer patients at the Indonesian Cancer Foundation in Surabaya. There are several factors including social support, parenting and self-confidence.

Method: The study design used observational design, with a population of 35 respondents, and a total sample of 32 cancer patient respondents. The sampling technique used simple random sampling. The research instrument used a questionnaire for data collection.

Result and Discussion: Analysis of data used Spearman statistical test with significant results of social support $p = 0.009$, parenting patterns $p = 0.035$ and confidence $p = 0.647$. H1 is accepted, which means that there was a relationship between support and hardiness as well as parenting parents and hardiness. H0 is accepted which means that there was no relationship or influence of self confidence on the hardiness. The factors which influence hardiness are social support and parenting. The support and good parenting of parents in the past can increase hardiness.

Keywords: social support, parenting, hardiness, cancer.

PRACTICE OF POST-EARTHQUAKE EXCLUSIVE BREASTFEEDING AT EVACUATION SITE IN PALU CITY, INDONESIA

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Introduction: The problem of post-disaster exclusive breastfeeding is caused by the lack of knowledge, the level of education, the family support, the support of health workers, the health facilities, and the distribution of the assistance for the breastfeeding substitutes and the commercial porridge which is very accessible, can change the behaviour of the exclusive breastfeeding in the disaster-affected areas. This research aims to analyse the determinant of the success of the post-disaster exclusive breastfeeding.

Method: The research method was quantitative with the cross-sectional approach. The population was 52 mothers at three evacuation sites who had 6 to 8-month babies; taken by the Total Sampling. The data were analysed using the univariate analysis and the bivariate analysis.

Results and Discussions: The results of the research were the characteristics of the respondents, namely: those who were 26 to 35 years old, were 63.5%; those who were in low education, were 86.5%, and those who were in higher education, were 13.5%; the pre-disaster breastfeeding practice was 73.1%; those who had less knowledge about breastfeeding were 80.8%; those who had received the assistance of PASI (breastfeeding companion) and commercial porridge were 76.9%; the unavailability of the health facilities was 65.4%; the lack of support from the health workers was 65.4%; and the less support from the families was 71.2%.

Conclusions: The bivariate analysis showed that the variables of: education, knowledge, the status of receiving the assistance of PASI & commercial porridge, the availability of the health facilities, the support from the health workers, and the support from the families; all of these variables had a significant relationship to the practice of exclusive breastfeeding at the evacuation site, with a p value < 0.05 .

Keywords: Exclusive breastfeeding, Refugee, Post-Earthquake

COMPARISON OF THE QUALITY OF LIFE BETWEEN THE ELDERLY PEOPLE WHO LIVE IN TEMPORARY SHELTERS AND NOT IN TEMPORARY SHELTERS POST NATURAL DISASTER IN PALU CITY

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Introduction: Post natural disaster in Palu City, victims of natural disasters, especially the elderly whose homes were destroyed and then placed in temporary shelters. The social environment where the elderly live is one of the factors that affect the quality of life. This study aims to determine the difference in quality of life between elderly who live in temporary shelters and not shelters after natural disasters.

Method: Research with comparative study design with cross-sectional method. The study sample was divided into 2 namely elderly who lived in shelter (n = 189) and elderly who lived not in shelter (n = 201). Quality of life measurements using the WHOQOL-BREF questionnaire. The statistical test was the Mann Whitney Test.

Results and Discussions: The average QOL dimension score in elderly in shelter was 20.1 (Physical), 19.5 (Psychological), 8.5 (Social Relationship), 21.9 (Environment) while for the elderly who live not in shelter, that is 23.4 (Physical), 20.2 (Psychological), 14.0 (Social Relationship), 33 (Environment). The average value of QOL scores on elderly living in temporary shelters is 70.0 while the elderly who live not shelter are 78.0. There were significant differences in the QOL dimension score of Physical, Social Relationship, Environment with value $p < 0,05$. Elderly Quality of Life was also a significant difference ($p < 0.05$).

Conclusions: Higher quality of life scores for elderly who live in non-shelters compared to the elderly who live in shelters.

Keywords: elderly, disaster impact, quality of life, temporary shelters

ELDERLY'S BLOOD TENSION AFFECTED THEIR DAILY SLEEPING QUALITY

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Introduction: Elderly's physiological changes will appear in several body's systems, one of them is cardiovascular system. Beside the physiological changes, there are also psychological setbacks that often occur such as decreased sleep quality or sleep disorders. Some Impacts that can be caused by sleep disorder are decreasing the quality of life, disturbing the daily activities, and decreasing the body's immune system. The blood tension (for elderly) tends to get high level, so they positioned as subject at greater risk of hypertension (high blood tension). Someone getting older tends to contract the hypertension because arterial wall will be thickening then it will buildup collagen in the muscle layer, so the blood vessels will gradually narrow and become stiff. The objective of this study was to determine the relationship between blood tension with daily sleep quality of elderly.

Method: The method of this research was analytic correlation with cross sectional design. The populations were the elderlies more than 45 years old in PSTW Pandaan as many as 107 people by Purposive Simple sampling technique, with total of 64 samples. analysis technique used chi square test.

Results and Discussions: The results of this study showed that 18 (28,1%) respondents had blood tension in Optimal category and 7 respondents (10.9%) had hypertension grade 2. Majority of respondents or 36 (56.3%) had sleep quality in good category while the rest 28 (43.8%) respondents in poor category. The results of data analysis used chi square test with p value 0.003 (<0.005) stated statistically significant that there was a relationship between blood pressure and sleep quality of elderly in PSTW pandaan od East java. A regularly sleeping disturbance is going to affected physiological changes in the form of body imbalance homeostasis. If this happens, the sympathetic nervous system will be activated by the hypothalamus as an effect of homeostasis imbalance. The active sympathetic nervous system tends to increase peripheral resistance and increased cardiac output ad for the rest, it will increase blood tension.

Conclusions: So, it can be concluded that someone who has poor sleeping quality is going to face a changing blood tension.

Keywords: Blood tension, Sleeping quality, Elderly

MULTIPLE MICRONUTRIENT SUPPLEMENTATION AND PREGNANCY OUTCOME: LITERATURE REVIEW

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Introduction: Low birth weight babies are a result of impaired fetal growth, premature birth or both. The problem has long been a burden for developing countries and poor countries and is associated with child morbidity and mortality, stunting and cognitive impairments and increases the risk of chronic diseases. One effort that can be done is to provide nutrition during pregnancy. Multiple micronutrient (MMN) was design to fullfil the nutrition for pregnant woman in various countries specially in low income country. Supplementation of MMN to pregnant women provides a better outcome for pregnancy.

Methods: This is a literature review. Various references were collected from online database including reports, journals, mostly in the last 10 years. The journals were mostly from the scholarly journals. The articles were screened according to the research objectives. The keywords used are multiple micronutrient and pregnancy outcome.

Results and Discussions: Providing micronutrients in one supplement is easier to do than running several programs for each type of micronutrient for pregnant women. Various study showed that MMN reduced infant mortality, premature birth and low birth weight babies, but some studies showed different results. Some study found no different of birth weight, mortality and premature delivery by MMN supplementation.

Conclusions: The effect of MMN on pregnancy outcome have a various results, but mostly come with a positive results.

Keywords: Pregnancy Outcome, Multiple Micronutrient, infant mortality, low birth weight baby.

THE RELATIONSHIP OF AGE AND BODY MASS INDEX WITH HYPERTENSION IN ELDERLY IN RW 03 KELURAHAN GAYUNGAN SURABAYA

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Introduction: Hypertension is one the factors of number one causing of death in the world. BMI is very influential in the incidence of hypertension, where excessive BMI or being overweight can lead to risk factors for hypertension. The purpose of this study was to analyze the Body Mass Index (BMI) with hypertension in the elderly in RW 03 Gayungan Surabaya.

Method: This study was conducted using a cross sectional method, sample selection using purposive sampling. Sample was 47 respondents. Data collection was done by measuring blood pressure, weight and height. The collected data was processed using a computer program, being analyzed by the Spearman correlation test with a significance level of $\alpha = 0.05$.

Results and Discussions: In this study the highest age was 60-64 years are 22 people (46.8%) and BMI in the elderly was a normal BMI and Obes I BMI which was 14 people (29.8%). The highest sex was women, 42 people (89.4%). The highest criteria for hypertension were hypertension level 1 (57.4%). The sample with the highest grade 1 hypertension was normal BMI (29.79%), while the second degree hypertension was the highest in Obes I BMI (29.79%). The results of the Spearman correlation test showed that there was a significant relationship between BMI and hypertension in the elderly where $p = 0.001$ ($p < 0.05$).

Conclusions: There is a significant relationship between the interpretation of BMI and hypertension in the elderly of RW 03 Gayungan Surabaya. The writer suggests need to control body weight, exercise activities, and do good diet of the elderly.

Keywords: body mass index, hypertension, elderly

THE DESCRIBE OF RISK BAHVIOR SEXUAL INTERCOUSE IN DATING REKATIOSHIP ON ADOLESCENTS IN MAKASSAR CITY.

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Introduction: Some adolescent in Indonesia have shown dating behavior that deviating from social norm in society by showing behavior gaps and psychosocial unconventionality. Most of these behavior are directed to risk behavior-sexual intercourse.

Method: This research, used narrative qualitative approach that aims to describe the adolescents risk behavior-sexual intercourse in dating relationship in Makassar City. The samples are taken according to criterion sampling technique, there are 3 adosecents participated in this research (two males and one female) ranged between 17 and 19 years old and have experience as well as risk behavior-sexual intercourse in dating in relationship. The data obtained through in-depth intervie based on guideline interview which referring to Adolescent Health and Decelopment Questionnaire by Jessor et.al (2002), modified by research. Then, the data is processed using qualitative data analysis.

Results and Discssions: The result shows that risk behavior-sexual intercourse is caused by high of risk factors, which cover behavior risk, opportunity risk, models risk and vulnerability risk. The moderator effect of protection form protective factors, which cover behavior protection, controls protection, models protection and supports protection towards risk factors, play fewer roles on minimizing the possibility of subjects involved in doing risk behavior-sexual intercourse in dating.

Conclusions: The conclusions is risk behavior-sexual intercourse starts from the adolescents behavior in dating so that leads to fress sexual intercourse, as well as caused by risk factors and protective factors. This that an impact on the preparation for the adulthood, personal development related feelings and mind; as well as health in the future

Keywords: risk behavior-sexual intecouse, dating relationship, adolescent.

USE OF DIVERSITY SCORES AND NUTRITIONAL RIGHT FOR DIET QUALITY MEASUREMENT: RELATION WITH NUTRITIONAL STATUS OF PREGNANT WOMEN IN SOUTH SULAWESI

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Introduction: Maternal under-nutrition is one of the most important causes of maternal morbidity and mortality, particularly in the developing countries. Maternal nutrition has direct association with foetal nutrition. This study aimed to identify dietary diversity and determine any relationship of dietary diversity with nutritional status of pregnant women belonging to different socioeconomic conditions in South Sulawesi Province.

Method: It was a cross sectional survey involving 350 pregnant women in their second and third trimesters, which were chosen randomly in three districts with the highest prevalence of maternal mortality in South Sulawesi, namely Jeneponto District, Gowa Regency and Wajo District. A semi qualitative questionnaire was used that contained structured questions regarding socio-demographic features, socioeconomic status, nutritional status based on body mass index and mid-upper arm circumference (MUAC) and a dietary diversity score (DDS = count of food groups, among 12 groups). As well as a questionnaire about understanding about the nutritional rights of pregnant women.

Results and Discussions: Out of total, 50.6% of the average age of pregnant women between 21 years - 30 years, 29.7% of the last education of pregnant women only finished elementary school, 44% was the first birth (nullpara), 60% the average family income at the middle level (IDR 1,000,000-3,000,000), 79.7% on average food expenditure below IDR 500,000 per month. Only 20.3% of pregnant women had an understanding of their nutritional rights, while 79.7% of pregnant women did not know it. 68,6% of pregnant women had normal gestational BMI while, 10,0% were overweight, 6% obese, and 15,4% of pregnant women were under weight. Similarly, based on mid-upper arm circumference, 72,9% of pregnant women had normal nutritional status, and 27,1% were under weight. Medium dietary diversity was observed in 55,4% of pregnant women, while only 7,4 % showed low, and 37,1 % showed high dietary diversity. Dietary diversity was only associated with education level of pregnant women ($p=0.026$), and were not associated with family size ($p=0.21$), income level ($p=0.19$) and knowledge of nutrition rights of pregnant women ($p=0.76$). As with the body mass index and upper arm circumference which are negatively related to the level of education of the mother. No association could be proven between nutritional status and dietary diversity of pregnant women (based on BMI $p=0.86$, based on mid-upper arm circumference $p=0.19$).

Conclusions: Dietary diversity is a good proxy indicator for micronutrient adequacy in pregnant women, however if quantity of food consumed is added it can give better indication of determinants of nutritional status of pregnant women.

Keywords: dietary diversity score, nutritional status, nutritional right, pregnant women.

SECONDARY APPRAISAL AND COPING STRATEGY TO INCREASE ADHERENCE ARV MEDICATION AMONG PLWH

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Introduction: HIV is an pandemic in the world. In 2016 a number of 36.7 million PLWH and about 80% in Indonesia spread over 80.2% of the Regency/ City, East Java Province (0.08%), in Probolinggo District 2012-2017 (1%). Preliminary study in January 2018 that cumulative number of PLWH were 1,140 people, 75% have qualified ART. From 75% of 15% lost to follow-up and just 60% are active ART. More factor that influence coping strategy. One of them is individual factors. The aim to analysis secondary appraisal and coping strategy to increase adherence ARV medication among PLWH.

Method: Design used crosscetional study. Population were all patient that follow ART in VCT in January-Mei 2018 were 61 and sampel were 54 people, simple random sampling, instrument questionnaires, interview sheet, analysis logistic regression used SPSS 16.0.

Results and Discussions: The result that level of knowledge influence 3.233 times problem focus coping (PFC) and aboth (PFC and EFC) throught self efficacy that can influence PFC 4.613 times and both 4.346 times then duration of ARV medication can influence PFC and both 4.453 times throught perceived control emotions and perceived control emotions can influence PFC and both 5.673 times throught self efficacy.

Conclusions: coping strategy can increase adherence by PFC and both. PFC and both influence by level of knowledge, duration ARV medication, self efficacy and perceived control emotions. The sugestion to increase adherence ARV with give knowledge about side effect, benefit and others every follow up and help to solve stressor about medication use PFC and both.

Keywords: secondary appraisal, coping strategy, adherence, ARV

MOTHER'S KNOWLEDGE AND SKILL TOWARDS SEXUALITY EDUCATION ON PRESCHOOL BY AUDIO VISUAL (AVA)

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Introduction: Exploitation sexual and pedophilia is an iceberg phenomenon. Role of mother very important because children get first education from her. Child Protection Board (LPA) data in Indonesia were 120 cases in 2016, 116 cases in 2017, whereas in East Java 393 cases in 2017, 117 cases in February 2018, then LPA data in Probolinggo district on January-April 2016 were 35 cases. Pre eliminary study to 6 mothers from Early childhood education and Kindergarten Raudatul Hasan, 5 mothers Harapan Kita, 5 mothers Al Hidayah Kindergarten shows 69% have difficulty to answer their question about sexuality. The aim to analysis Indonesian mother's knowledge and skill toward sexuality education on preschool by audio visual (AVA).

Method: Design used quasy experimental pre post test design, population all mothers preschooler in Early childhood education and Kindergarten in Condong and Sumbersecang village were 234 people, sample were 146 people, simple random sampling, questionnaires, observation sheets, AVA, analysis wilcoxon (α 0,05).

Results and Discussions: The result that age (mean=32 years old), level education secondary school (41,1%), house wife (64,4%), income Rp.500.000-Rp.1.000.000 (45,9%), Madurese ethnics (59,6%), previous mother's level of knowledge is low (40,4%, mean=6,28), level of knowledge after health education is good (40,4%, mean=9,80, p=0,000). Previous skill is low (62,3%, mean=4,01), skill after training is midle (62,3%, mean=6,88, p=0,000).

Conclusion: that have influence Indonesian mother's knowledge and skill toward sexuality education on preschool by AVA after training. The sugestion that the accuracy of the way preschool's sex education is particularly to give because it given impact on the future.

Keywords: Knowledge, Skill, Mother's, Sexuality Education, Preschool

EXPLORING FACTORS SHAPING EXPECTANT MOTHERS' EXPERIENCES ACCESSING ANTENATAL CARE IN SURABAYA, INDONESIA

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Introduction: Antenatal Care (ANC) plays an important role in reducing both maternal and infant mortality. Few studies within Indonesia have explored the experiences of pregnant women accessing ANC and the impact this has on ANC health seeking behaviour.

Methods: In order to examine factors shaping accessing ANC, five focus group discussions (FGDs) with pregnant women were conducted at community health facilities within urban areas of Surabaya. Further, five semi-structured interviews were carried out with midwives employed at these health facilities.

Results and Discussions: Preliminary findings suggest cultural factors, comfort of the health facility, long waiting times, perceived lack of information and feeling afraid were impacting timely access to ANC. Feeling comfortable with the quality of the service provided was a theme across all FGDs.

Conclusions: Efforts to decrease maternal and infant mortality rates in Surabaya have largely been centred on increasing ANC coverage and utilisation. The findings of this study highlight several factors influencing the uptake of ANC services by mothers. However, with the ANC coverage rate now available to 83% of the population and increasing, findings suggest that future policies and interventions should place more focus on the quality of ANC services being delivered.

Key words: Access, Antenatal Care, Infant Mortality, Qualitative Research, Maternal Mortality.

OPTIMIZING PUBLIC HEALTH NUTRITION FOR SUSTAINABLE GLOBAL PROSPERITY: HOW SIGNIFICANT ARE SCHOOL NUTRITION INTERVENTIONS?

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Introduction: The double burden of malnutrition is a significant contemporary public health challenge, affecting populations in diverse settings. We reviewed the evidence for the effect of school-based nutrition interventions (SBNIs) involving school children, aged 5-19 years, on nutrition status, nutrition-related knowledge and behaviour.

Methods: We conducted a systematic review on published school nutrition intervention studies of randomized controlled trials and controlled-before-and-after studies in sub-Saharan Africa (SSA). To be included, interventions had to involve changes to the school's physical and social environments, to the school's nutrition policies, to teaching curriculum to incorporate nutrition education, and/or to partnership with parents/community.

Results and Discussions: While there are few studies of SBNIs in SSA, the evidence shows that food fortification is very effective in reducing micronutrient deficiencies. Secondly, school nutrition education can improve nutrition knowledge, but this may not necessarily translate into healthy nutrition behaviour, indicating that nutrition knowledge may have little impact without a facilitating environment. There is also evidence for the effectiveness of SBNIs in improving cognitive abilities.

Conclusions: There is enough evidence to warrant further trials of SBNIs globally, but particularly in SSA. To address the high prevalence of undernutrition in low-and middle-income countries, food supplementation strategies currently available to school children should be expanded while simultaneously intensifying school nutrition education.

Keywords: anthropometry, dietary intake, food fortification, nutrition interventions, school setting.

SCHOOL BAG WEIGHT AND THE OCCURRENCE OF BACK PAIN AMONG ELEMENTARY SCHOOL

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Introduction: School children in primary schools use school bags to carry their school material, however carrying the heavy school bags is often associated with musculoskeletal problems especially back pain. Heavy bags are external strength that found significant changes in body posture and walking pattern of children and children tend to have back pain due to this effects side. This study aimed to analyze the differences in bag loads between elementary school children in urban areas as well as suburban area, and analyzed the relationship between school bag loads and the occurrence of back pain.

Method: This study was cross sectional study and used stratified random sampling to selected 2 elementary schools that representing urban areas and 2 suburban areas. Total sample was 164 students. School bag weight was measured in 5 consecutive days, in the morning when the respondents arrived at school, while the occurrence of back pain are measured using a modified Nordic map. Data analysis used independent sample analysis t test and Chi Square (χ^2).

Results and Discussions: The results of study showed that there were very significant differences in the school bags weight between schools in the urban areas and suburban areas. Also, there was a significant difference between schools using the 2013 curriculum and not using the 2013 curriculum, it showed that there was a correlation between school bag weight and the occurrence of back pain.

Conclusions: It is recommended that the 2013 curriculum should be used immediately for all elementary schools and using a locker for each school is needed to store items that are used by school children repeatedly.

Keywords: school bags, back pain, elementary school

IMPACT OF SOCIAL CAPITAL, DEMOGRAPHIC FACTORS AND COPING STRATEGIES ON COMMUNITY ADAPTATION IN SUPPORTING PEOPLE WITH SEVERE MENTAL ILLNESS

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Introduction: People with severe mental illness can live well, independently and have a satisfying life. Community plays an important role in the process of recovery of people with severe mental illness. Community adaptation has been conceptualized as a dynamic process; it is the ability of community to adapt to its environment. Little attention has been paid to community adaptation in supporting recovery of people with severe mental illness; therefore, there is a need to identify factors used to promote community adaptation. This paper addressed a question how social capital, demographic factors and coping strategies affect community's ability to adapt to people with severe mental illness.

Method: This study used an analytic observational design with cross-sectional approach. There were 137 respondents taken from rural society using multi stage random sampling. Somers' D test was used to measure the effect of social capital, demographic factors and coping strategies on community adaptation.

Results and Discussions: The results of the current study showed a significant effect of social capital, demographic factors and coping strategy on community adaptation ($p < 0.05$). Based on empirical research, access to social capital is critical for fostering community adaptation through its social participation, social network, trust and cooperation. In addition, demographic attributes and coping strategies were other parts of community adaptation framework.

Conclusions: Social capital, demographic factors and coping strategies were significant factors in development of community adaptation.

Keywords: social capital, demographic factors, coping strategies, community adaptation, mental illness

DETERMINANTS OF OCCUPATIONAL DISEASES IN HARBOR WORKERS IN INDONESIA

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Introduction: Every year many workers lost their lives due to accidents and occupational diseases. Occupational health refers to the identification and control of risks arising from physical, chemical, and other work hazards to establish and maintain safe and healthy working environment. This study aimed to analyze the risk of occupational diseases in harbor Workers at a port based in Surabaya.

Method: This research employed a cross sectional approach using random sampling. The sample was 94 port communities. The instrument used is questionnaire, and data analysis employed logistic regression test.

Results and Discussions: The associated risks of occupation diseases were job/duty ($p=0.001$), the habit of using PPE (Personal Protective Equipment) ($p=0.008$), smoking habits ($p=0.01$), noise ($p=0.046$) and exposure to dust ($p=0.003$).

Conclusions: Potential hazards that could cause occupational diseases are noise, smoking habit, and dust. Smoking habit and non-compliance with PPE protocols could increase the risk of hazard exposure. Control over potential hazards should be performed and compliance with personal protective equipment protocols should be improved.

Keywords: occupational diseases; harbor workers; risk factors; port health office, occupational and environmental health

BURDEN OF DISEASE FOR SMOKING ATTRIBUTABLE DISEASE

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Introduction: The diseases caused by cigarettes are increasing in Indonesia. It is like as the increasing number of smokers. It is more heavy burden of disease for government. However, there is no analysis related to cigarette disease burden at the regional level. East Java is one of province consist of 38 district. The purpose of this study was to analyze burden of disease in smoking attributable disease in East Java Province.

Method: This study is descriptive observational with cross sectional approach. The research was conducted at East Java province and started in January 2018-December 2019. Those diseases are lung cancer, stroke, infark myocard acute, chronic obstructive pulmonary disease and bronchitis. Samples size as many as 200 patient in this hospital. The analysis were to identify the characteristic of the patient, the type of disease and the risk factor, to identified economic burden of disease (direct cost and indirect cost) for disease episode to smoking attributable disease and calculate cost of illness for to smoking attributable disease.

Results and Discussions: The results found there were 64 people suffering from Smoking Attributable disease. The characteristics of most patients with cigarette disease are stroke, male sex, age of most sufferers between 17-55 years and respondent's income is mostly > 2,500,000. Majority patients with Smoking attributable Disease have episodes at least <1 year ago. The largest economic burden is direct costs 1,387,617,600 and indirect costs of 406,015,550.

Keywords: burden of disease, infarct myocard acute, lung cancer, stroke, smoking attributable disease

ANALYSIS OF HEALTH RISKS AND RESPIRATORY COMPLAINTS FROM TOLUENE EXPOSURE IN FOOTWEAR CRAFTSMAN IN SURABAYA, INDONESIA

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Introduction: Craftsman footwear industry in Indonesia is one labor-intensive commodity export. In the production process, footwear uses glue containing harmful organic solvents such as toluene. One of the toluene target organs is the respiratory tract. This study objective was to analyze the level of health risks and respiratory complaints from toluene exposure in footwear craftsman in Surabaya.

Method: A total of 51 workers from eight footwear craftsman factories participated in this study. The toluene concentration in the work environment was measured using the measurement method of NIOSH 1501. Data were collected using ATS questionnaire to assess lung health effects and noncarcinogenic health risks expressed by Risk Quotient (RQ) obtained by dividing the mean daily intake of non-life-long cancers by referent concentration.

Results and Discussions: The results showed that 87.5% of workers had toluene concentrations below the threshold limit. There were eight workers (17%) with the toluene concentrations below a threshold level despite being exposed to the unsafe condition (RQ = 1). The most prevalent respiratory symptoms of workers were the cough by 31.4%, cough with phlegm by 9.8%, wheezing by 31.4%, sneezing by 29.4 % and the cold by 27.5%.

Conclusions: It can be concluded that irritant respiratory problems have been found due to exposure to toluene from the glue. Risk control can be carried out by ventilation improvements and years of work. Thus, it is necessary to protect workers from its management through periodic examinations, the ventilation space, personal hygiene, and increased knowledge workers.

Keywords: Toluene, Footwear craftsman, Risk quotient, Respiratory symptoms, Indonesia

SANITATION AND MULTIPLE MICRONUTRIENT SUPPLEMENTATION IN PREGNANCY OUTCOMES: LITERATURE REVIEW

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Introduction: Around 1.1 billion people live without clean water and 2.6 billion people lack adequate sanitation. Lack of multiple micronutrient (MMN) in pregnant women can increase the risk of morbidity, totality, impaired growth and neurocognitive development at later stages of life. As part of a global strategy to prevent micronutrient deficiencies in pregnant women, UNICEF recommends that the use of MMN for prenatal supplements as a preliminary program in developing countries. The purpose of this systematic review is to analyze the relationship between sanitation to pregnancy using multiple micronutrient MMN approach

Method: This research used a systematic literature review. Various references were collected from online database including reports, journals, and books. The journals were mostly from the scholarly journals. The articles were screened according to the research objectives. The keywords used are sanitation, pregnancy, and multiple micronutrient approach.

Results and Discussions: This study showed that there is a relationship between sanitation to pregnancy using MMN approach with $p=0.001$. MMN deficiency in pregnant women can increase the risk of morbidity, totality, impaired growth and neurocognitive development at later stages of life. Ecological studies have found that poor sanitation is associated with higher maternal mortality. Ecological studies assessing the environment of water found that a poor water environment was associated with a higher maternal mortality

Conclusions: This paper concludes that there is a relationship between sanitation to pregnancy using multiple micronutrient MMN approach. Further recommendation will be provided.

Keywords: sanitation, pregnancy, MMN

CULTURAL AND LINGUISTIC DIVERSITY AND AGEING IN AUSTRALIA: CHALLENGING EFFECTIVE AGED CARE SERVICES IN THE 21ST CENTURY

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Ageing is a contemporary global public health challenge that has personal, social, economic and political impacts across all regions of the world. In Australia, the cumulative cultural and linguistic diversification of the older population is presenting substantial challenges for the aged care sector. In this context, the need to provide aged care services that are culturally and linguistically appropriate to people from diverse cultural and linguistic backgrounds (DCALBs) is recognised at both the policy and practice levels by the health and aged care sectors in Australia. However, little research has been conducted to understand the factors that influence the provision of and access to such services by older people from DCALBs. This paper presents the key drivers, government policy positions and the issues that will face our aged care sector as it faces substantial challenges to meet the needs and expectations of older people of diverse cultural and linguistic backgrounds

Keywords: Ageing, aged care, cultural and linguistic diversity

DETERMINANTS OF UNMET NEED AND IMPACT ON WOMEN REPRODUCTIVE HEALTH

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Introduction: The incidence of unmet need for family planning in Central Sulawesi Province was 11.5%. This figure is still quite high and inhibits the achievement of national family planning targets. The purpose of this research was to know the determinants of the incidence of unmet for needs family planning and its impact on reproductive health in couples of childbearing age in the Marawola District of Sigi Regency.

Method: The research used is quantitative with cross sectional approach. The sample was all childbearing age couples in the Marawola District of Sigi Regency, amounting to 94 people taken by proportional stratified random sampling. Data collection is using a questionnaire. Data were analyzed using univariate and bivariate analysis with chi-square test.

Results and Discussions: The research results showed that mothers who experienced unmet need for family planning were 61.70% and mothers who experienced meet need were 38.30% of respondents. Age ($p = 0,000$), family planning history ($p = 0.036$), husband's support ($p = 0,000$) is the determinant of the cause of the incident of unmet need for family planning. Furthermore, unmet need for family planning program has an impact on reproductive health, namely unwanted pregnancy ($p = 0.002$) and fertility ($p = 0.006$).

Conclusions: In conclusions, several factors that determine the determinants of unmet need are age, family planning history and husband's support. Unmet need for family planning also has an impact on reproductive health, namely unwanted pregnancy and high fertility. It is recommended that health workers be more intense by giving family planning counseling or information on each type of contraceptive method to couples of childbearing age and also providing an explanation of the impact of not having family planning.

Keywords: unmet need, unwanted pregnancy, fertility.

DIPHThERIA OUTBREAKS IN INDONESIA 2017: A LESSONS LEARNT FOR LARGE SCALE ORI

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Introduction: Diphtheria is a vaccine preventable disease which has been causing sporadic outbreaks in Indonesia since 2011. Despite vaccination coverage, the optimum herd immunity level was below the necessary 90%. In December 2017, a spike of cases occurred, resulting in 44 deaths across 30 provinces.

Method: Surveillance data on the target (1-<19 years old) and non-target groups (19 years old and above) were obtained from the Directorate of Health Surveillance and Quarantine, Ministry of Health, Republic of Indonesia. Cases were tabulated by provinces/regencies over time for December.

Results and Discussions: There were 260 cases reported in the 11 districts with one case excluded because of missing data. For cases falling within the target age group, there were 129 case notifications. Post-ORI (the month after ORI initiation to October 2018), there were 76 notifications. The ORI uptake rate was poor in the first round and subsequently improved in the second for most of the districts.

Conclusions: Countermeasures were immediately implemented by the authorities resulting in a decline of cases in most districts. This include active case finding; identifying contacts to deliver antibiotic prophylaxis; increased risk communication and public health education; and target vulnerable groups for the target age groups are between the ages of 1 to 18 years old. The provinces, especially in highly dense urban areas with the highest incidents are also targeted for ORI (e.g. in shopping centres). The recommendations support also to initiate immunization around resident areas near the venue of the Asian Games in 2018.

Keywords: diphtheria, Indonesia, ORI, outbreak

PROMOTING HEALTHY TRADITIONAL MARKETS THROUGH THE APPLICATION OF OTTAWA CHARTER FRAMEWORK IN INDONESIA

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Introduction: Traditional markets are unique in the context of health promotion settings. Environmental and social issues and their impact on health are rarely reviewed comprehensively using the Ottawa Charter Framework. The purpose of this literature review is to develop health promotion indicators and strategies to realize healthy traditional markets through the application of the Ottawa Charter Framework in Indonesia.

Method: This research used a systematic literature review. Various references were collected from online databases including ProQuest, reports, journals and books in the last 5 years. Approximately 1,460 healthy market articles and using English in the last five years related to public health were reviewed. Healthy market global indicators and strategies are the main guide, and local indicators are added according to the Indonesian context. The journals were mostly from the scholarly journals. The articles were screened according to the research objectives. The keywords used are healthy markets and Ottawa Charter.

Results and Discussions: This study showed that the use of the Ottawa Charter framework which emphasizes the setting approach, such as markets is very effective in improving the quality of health and the environment in these settings. This approach places collaboration with stakeholders as the main point. Indicators and strategies to realize a healthy market comprehensively are related to the Ottawa Charter framework: building health public policy, creating supportive environments, strengthening community action, developing personal skills, and re-orienting health services.

Conclusions: This paper concludes that promoting healthy markets using the Ottawa Charter framework is effective for health promotion and indicators and strategies can be adapted according to the local circumstances and needs. Further recommendation will be provided.

Keywords: Healthy Markets, Indonesia, Ottawa Charter, Systematic Review

FACTORS AFFECTING THE OCCURRENCE OF STUNTING IN KEDISAN VILLAGE, TEGALLALANG DISTRICT, GIANYAR REGENCY, BALI PROVINCE

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Introduction: Stunting is nutritional status based on measurements of Length-for-Age or Height-for-Age index where in anthropometric standards assessment of nutritional status of children, the measurement results are at the threshold (Z-Score) <-2 SD to -3 SD (stunted) and <-3 SD (severely stunted). The report of the Community Health Centre of Tegallalang I obtained the most stunting cases in Kedisan Village with 28 toddlers suffering from stunting based on data in 2017.

Method: This study uses analytic type with a case-control approach which aims to determine the factors that influence the occurrence of stunting in Kedisan Village, Tegallalang District, Gianyar Regency. The sample size was taken using a total sampling technique that is by using all cases of toddlers who were declared stunting in the Kedisan Village area, Tegallalang District, Gianyar Regency namely 28 cases with 1: 1 case and control comparison. So that the total sample was 56 samples. Analysis of the data used in this study are: characteristic analysis using univariate analysis techniques and bivariate analysis using Chi-Square test.

Results and discussions: The results of the bivariate analysis found that the risk factors that had a significant relationship with the incidence of stunting were complementary foods for breast milk ($p = 0.027$; OR: 4.630), while other risk factors were not related to the occurrence of stunting. Providing counseling to mothers regarding exclusive breastfeeding and complementary foods for breastfeeding to meet the nutritional needs of children under five, as well as the effects of stunting.

Conclusions: Factors that influence the occurrence of stunting in Kedisan Village are complementary foods of breast milk.

Keywords: stunting, causes of stunting

MENTAL HEALTH, AND INTERVENTION OF TADULAKO UNIVERSITY STUDENTS AFTER DISASTER: EARTHQUAKE, TSUNAMI, LIQUEFACTION IN PALU, PROVINCE OF CENTRAL SULAWESI, INDONESIA

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Introduction: September 28, 2018, 7.4 SR earthquake followed by a tsunami, and liquefaction experienced in Palu, Sigi, Donggala, Central Sulawesi Province, Indonesia, impacted 4,340 deaths, 4,438 injured, 18.48 Trillion material and infrastructure loses. Studies have confirmed the impact of disasters on mental health morbidity (children, elderly, women), but lack of adolescence. Tadulako University students with a age range of 19-22 years are classified as late adolescents, vulnerable age, because the transition from children to adulthood, the transition creates various problems that adolescents must be able to deal with in their developmental tasks. This study aims to describe the prevalence of mental health and intervention in Tadulako University students after the disaster; earthquake, tsunami and liquefaction.

Methods: The study was conducted 3 months after the disaster in Palu City, Central Sulawesi Province. 270 Tadulako University students were randomly selected and willing to participate in the intervention for 3 days. Collecting data using interviews and questionnaires, the data is processed through editing, coding, tabulating, and scoring into three categories, namely; low; moderate; high. Data analysis techniques used descriptive analysis and t test.

Results and Discussion: This study found that the mental health prevalence of Tadulako university students in the form of stress symptoms with high category is 9.88%, with the category of high anxiety symptoms by 51.75%, and depression symptoms with a high of 22.67% category. The percentage of symptoms of stress in the category of high for the female by 9.62%, male at 10:34%, the percentage of symptoms of anxiety with the category of high for a female at 52.05%, male amounting to 51.22%, the percentage of symptoms of depression in the category of high in female by 22:22%, male at 23:33% ($p = 0.00$). After the intervention of the PFA results showed a decrease in stress, anxiety, and depression symptoms ($p = 0.00$).

Conclusions: 1) Anxiety symptoms is the largest mental health prevalence found in Tadulako University students amounted to 51.75%. 2) There is no difference in stress, anxiety and depression symptoms with high category between male and female. 3) PFA intervention effectively reduce stress, anxiety, and depression symptoms.

Keywords : disaster, vulnerability, mental health, intervention

QUALITATIVE ANALYSIS OF FINANCING HIV AND AIDS PROGRAM IN HEALTH OFFICE OF JAYAWIJAYA DISTRICT, PAPUA PROVINCE

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Introduction: Planning for financing HIV and AIDS prevention in the regions adapts to the epidemiological situation, resources and is still financially oriented. The purpose of this study was to explore the financing of HIV and AIDS prevention programs in Jayawijaya Regency, Papua Province.

Method: This research uses a qualitative research design with a case study approach. Data were collected by in-depth interviews on 18 information and one group of Focus Group Discussion (FGD). Determination of research informants with purposive procedures, including the District Health Officer, Regional AIDS Commission, Head of Public Health Services, HIV and AIDS Holder and the Non-Government Organization Programs.

Results and Discussions: The results of this study indicated resources that the funding of the HIV and AIDS prevention program at the Jayawijaya Health Office came from the Government (the Special Autonomy Fund) and the National Budget (BOK Funds in the Puskesmas) and assistance from international NGOs with a very large number each year. HIV and AIDS prevention in the Health Office is intended to finance the fulfillment of logistical needs, increase of human resource capacity and HIV and AIDS services. The assistance provided by international NGOs is not in the form of new programs, but to assist local government programs. HIV and AIDS are different for each clinic, which depends on the priority level of the health clinic for HIV and AIDS prevention programs.

Conclusions: This study concludes that HIV and AIDS funding from the budget data and the state budget must be re-examined to be improved in connection with the decreasing number of foreign donor agencies that provide assistance in Jayawijaya Regency. So it is recommended that the amount of funding for the HIV and AIDS program in Jayawijaya Regency of Papua Province be balanced with a comprehensive, program coping strategy.

Keywords: financing, prevention, papua, HIV / AIDS, jayawijaya

PRE-SERVICE TRAINING PROGRAM FOR MEDICAL STUDENTS: IMPROVING THE QUALITY OF HEALTHCARE PERSONNEL IN FAMILY PLANNING AND REPRODUCTIVE HEALTH SERVICES

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Introduction: The National Population and Family Planning Board of The Republic of Indonesia (BKKBN) initiated Pre-Service Training program in 2016 for Indonesian medical students who will be graduating from medical education institution. The training aims to improve the ability of medical students in providing quality family planning services. The training involves the representatives of the faculty of medicine and provincial BKKBN using competency-based training, preparatory training, humanistic, and coaching approach.

Method: This research was descriptive to determine the number of universities who had participated in training of trainers and carried out Pre-Service Training. The data are displayed in tables.

Results: With a total of 87 Faculty of Medicine spread throughout Indonesia, BKKBN had managed to conduct training of trainers of Pre-Service Training in 42 universities and implement the training itself for medical students in 16 universities.

Conclusions: This program is believed to be able to produce an augmentation in the quality of family planning and reproductive health services and establish Indonesia as one of the leading family planning countries as its long-term impact.

Keywords: family planning, reproductive health, medical students, pre-service training, curriculum

HEALTH OUTCOMES REFLECT THE SOCIAL GRADIENT: THE CASE OF VISION SCREENING IN QUEENSLAND

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Introduction: The early detection of vision issues in children has been linked to improved wellbeing and school performance and social and economic outcomes into adulthood. Accordingly, Children's Health Queensland Hospital and Health Service implemented a state-wide vision screening program to promote the early detection of vision abnormalities among prep students. As part of this intervention, an evaluation is being conducted by independent researchers. This paper reports on the findings relating to the prevalence and distribution of vision abnormalities among Queensland prep students.

Method: Vision screening of Queensland prep students has been conducted by community Registered Nurses, using two screening tools: Parr 4m Visual Acuity Test and Welch Allyn Spot Vision Screener. Participant screening results, together with community socio-demographic data were reported. Descriptive statistics were used to summarise data on schools screened, prep students screened and screening outcomes. Tests of association were used to examine the correlation between the number screened, number referred and Socio-Economic Indexes for Areas (SEIFA).

Results and Discussions: The Queensland vision screening program is currently being implemented in ten of fourteen HHSs, with the remaining four HHSs to commence screening in the near future. At a state-wide level, 738 of 1,473 schools have participated in the program with 33,706 students screened. Of those students screened, 2,062 (6.1%) received a referral recommendation to see an eye health professional for further assessment. Of these students, data on referral outcome is available for 1,145 (55.5%) with 832 (72.7%) being confirmed with a vision abnormality. The analysis of the vision screening outcomes (passed or referred) by SEIFA quintile shows that the referral rate for further assessment by an eye health professional is negatively associated with SEIFA quintile ($\chi^2 = 105.24$, $p < 0.001$). The prep vision screening referral rate of 6.1% is consistent with other comparable vision screening programs conducted in Australia and internationally.

Conclusions: Of particular interest is the clear association between referral of prep students and SEIFA scores, evidencing a social gradient, whereby prep children from lower socio-economic areas are more likely to experience vision abnormalities. This then suggests that vulnerable populations may be more likely to experience undetected vision problems and the associated negative impacts on wellbeing throughout the life-course.

Keywords: Social gradient, vulnerable populations, vision screening, prep children

CROSS-SECTIONAL STUDY: PSYCHOSEXUAL DEVELOPMENT AND MASTURBATION BEHAVIOR OF ADOLESCENTS IN SURABAYA, INDONESIA

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Introduction: The psychosexual development can affect adolescents to do masturbate. Based on the preliminary survey conducted on 15 adolescents in Surabaya, it was found that 11 people (73,3%) had masturbated with a frequency of 1-2 times a day. This study aims to determine the correlation of the psychosexual development and masturbation behavior of adolescents in Surabaya.

Method: This study is observational research with cross-sectional approach. Simple Random sampling technique was used in selecting samples with inclusion criteria of adolescents aged 14-19 years, 83 people were identified as respondents. Chi-Square Test was employed in the statistical analysis process.

Results and Discussions: Based on the statistical test results, the value of $p=0.003$ ($p < 0.05$) which means there is a correlation between psychosexual development and masturbation behavior in adolescents. Psychosexual development is one of the factors that influence adolescents to masturbate.

Conclusions: There was a correlation psychosexual development and masturbation behavior. So, the role of parents, family, and the environment is very important in providing early sexual education and must continue to monitor the sexual development of adolescents.

Keywords: psychosexual, masturbation, adolescents

THE RELATIONSHIP OF ERGONOMIC RISK FACTORS WITH THE COMPLAINTS OF MUSCULOSKELETAL DISORDERS (MSDs) IN WORKERS OF MACHINE WORKSHOP AT PT. DOK & SHIPMENT OF KODJA BAHARI (PERSERO) GALANGAN II IN 2019.

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Introduction: In jobs whose activities are manual, workers are required to have physical abilities in order to produce roles as desired. But keep in mind, that humans have physical limitations that have a tendency to experience disorders related to muscles and bones. Subjective complaints are disorders that are felt in the musculoskeletal system in parts of the body such as the neck, shoulders, hands, spine or legs. Factors that cause subjective complaints include ergonomic risk factors and individual factors.

Method: This study aims to determine the relationship of ergonomic risk factors with subjective complaints on machine shop parts workers PT Dok & Perkapalan Kodja Bahari (Persero) Galangan II which was conducted during April - June 2019 using a cross sectional study design. The sampling method used total sampling. The sample in this study were 30 machine workshop workers. The dependent variable in this study is subjective complaints, while the independent variables are ergonomic risk factors, age and years of service. The results of the research data were analyzed by univariate and bivariate using the chi square test.

Results and Discussions: From the results of the study, 18 workers (60%) experienced subjective complaints and 12 workers (40%) did not experience subjective complaints. Based on the results of bivariate analysis, with a significance level of 5%, obtained two factors that have a significant relationship, namely age with p value 0.018 and work period with p value 0.013.

Keywords: ergonomic risk, musculoskeletal disorders, workers of machine workshop, PT Dok & Perkapalan Kodja Bahari (Persero) Galangan II

PSYCHOMETRIC PROPERTIES OF THE INDONESIA VERSION OF THE SLEEP HYGIENE INDEX IN ADOLESCENTS

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Introduction: Sleep is associated with behavioral factors. Maladaptive behaviors such as poor sleep hygiene practice will disrupt the normal sleep mechanism. Therefore it needs a tool to screen and measure maladaptive sleep hygiene. This study aimed to assess psychometric properties of the sleep hygiene index (SHI) including translation, factor structure, validity, and reliability.

Method: Data were collected from 101 Indonesia adolescents in junior high school. SHI-Indonesia version was translated based on WHO guideline. We performed exploratory analysis using varimax rotation. Convergent validity was evaluated by calculating the correlation between item score and total score. Also, Cronbach's alpha was computed to investigate internal consistency and two-week interval test-retest reliability.

Results and Discussions: The SHI-Indonesia version showed the unidimensional factor structure. Convergent validity showed positive correlation between each item and total score. Cronbach alpha of SHI-Indonesia version was 0.618 and SHI had good test-retest reliability ($p < 0.001$).

Conclusions: The SHI-Indonesia version revealed reliable and valid tool to assess maladaptive sleep hygiene among Indonesia Adolescents.

Keywords: sleep hygiene, psychometric, validity, reliability

NUTRITIONAL STATUS BEFORE PREGNANCY, FAMILY INCOME AND EARLY BREASTFEEDING INITIATION AS DETERMINANTS OF SUCCESSFUL EXCLUSIVE BREASTFEEDING FOR INFANTS PARTICIPATING IN THE FIRST 1000 DAYS ASSISTANCE PROGRAM IN SURABAYA CITY.

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Introduction: The target of 50% exclusive breastfeeding for the first 6 months has not been achieved. Creating a platinum generation and reducing the incidence of stunting was one of the goals of assistance the first 1000 days of life in Surabaya city. This study aims to examine the influence of nutritional status before pregnancy and the initiation of early breastfeeding on the exclusive breastfeeding for infants participating in the first 1000 days assistance program in the city of Surabaya.

Method: research design was prospective cohort. 278 bridal couples were followed from before marriage until the baby was 2 years old. Sample were taken by area random sampling. Research variables were: maternal age, maternal education, family income, frequency of antenatal care, upper arm circumference and BMI before pregnancy, place and mode of delivery, gestational age at delivery. Data were analyzed by linear regression with $\alpha = 0.05$.

Results and Discussions: Nutritional status reflected by the Upper Arm Circumference and Body Mass index before pregnancy is significant for Exclusive breastfeeding (p value 0.15 and p value = 0.047). Family income is also significant for exclusive breastfeeding (p = 0.047). Early breastfeeding initiation significantly influences exclusive breastfeeding (p value = 0.001).

Conclusions: nutritional status of women before pregnancy, economic empowerment of families and early breastfeeding initiation after one hour of delivery need to be greatly improved to achieve the target of exclusive breastfeeding.

Keywords: nutritional status, early breastfeeding initiation and exclusive breastfeeding

COGNITIVE IMPAIRMENT AND NOISE INDUCED HEARING LOSS ON SHIPYARD EMPLOYEES

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Introduction: Noise is definitely in shipyard company. Noise causes auditory and non-auditory disorder. Audiometry examination in 2018 was found 81.2% with sensorineural hearing loss due to noise in shipyard employees as auditory disorder. As company doctors, we observe cognitive impairment in employees who experience sensorineural deafness due to noise. Whereas cognitive ability are necessary to achieve maximum productivity. This study is to analyze these allegation.

Method: An observational study with a cross-sectional approach. Research location in shipyard company Surabaya. The population is shipyard production employees, as many as 314 people. 49 respondent were found as samples that met the inclusion and exclusion criteria. The data cognitive ability were taken using the MoCA-Ina questionnaire.

Results and Discussions: The data shows 77,6% of subject with SNHL, and 79.6% of subjects with cognitive problem. Spearman test between the degree of deafness and cognitive scores of research subjects showed Sig. 0.032; CC. 0.306*.

Conclusions: The sensorineural deafness due to noise is associated with decreased cognitive abilities of shipyard employees.

Keywords: Cognitive abilities, Sensorineural hearing loss, Shipyard employee

DIETARY HABITS OF URBAN LIVING PRE-SCHOOL CHILDREN IN SRI LANKA: DO THEY MEET RECOMMENDATIONS?

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Introduction: Childhood malnutrition is a public health threat in Sri Lanka including the emergence of overweight and obesity in urban locations. Poor dietary habits are known to be associated with poor nutritional outcomes, however dietary habits of Sri Lankan pre-school children have not been explored. This study aimed to assess dietary habits among urban living Sri Lankan pre-school children.

Method: A cross-sectional analysis of the baseline data from a cohort study was conducted with parents/caregivers of children aged 2-6 years, from 21 pre-school centres in Kurunegala District, Sri Lanka. Parents/caregivers completed a self-administered questionnaire on sociodemographic and dietary information of their participating children. A Food Frequency Questionnaire was used to assess the dietary habits in portion sizes and frequencies.

Results and Discussions: Children's mean daily intake servings of fruit (1.02) and vegetables (0.84) were aligned with approximately half of national recommendations, with less than 20% of children meeting daily recommendations. Average daily intake of meat or alternatives was 1.56 servings, which was in line with the national recommendation. Intake of fish, egg, chicken and milk were associated with child age and gender. Over one-third of children had sugary snacks and confectionaries daily. Majority (84.7%) of children consumed their breakfast regularly (daily) and 40% reported watching television while eating the evening meal.

Conclusions: Findings highlighted inadequate intakes of fruits and vegetables and excessive intakes of sugary snacks in children. This suggests the need for population-based interventions to promote healthy diets in this urban cohort.

Keywords: Dietary habits, food portions, children, urban, Sri Lanka

SALTWATER FISH CONSUMPTION PATTERN AND INCIDENCE OF HYPERTENSION IN ADULTS: A STUDY OF THE PEOPLE IN GRESIK COAST, INDONESIA

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Introduction: Hypertension is one of the causes of morbidity and mortality for the people in Indonesia. The number of people with this disease in Indonesia tends to increase from year to year. Besides medication adherence and blood pressure control, they must adjust their consumption pattern. Saltwater fish consumption pattern becomes an optional effort to prevent hypertension. In fact, most of them do not pay attention to it. Therefore, this study was purposed to analyze the correlation between saltwater fish consumption pattern and incidence of hypertension in adults.

Method: This analytic study was conducted using cross sectional approach by involving adults (aged 26-45 years) found with or without hypertension totaling 250 people as the population of study. 154 people were chosen as the samples by using simple random sampling technique. The independent variable was saltwater fish consumption pattern, whereas the dependent variable was incidence of hypertension. The data were collected using questionnaire and digital sphygmomanometer to observe the blood pressure. Moreover, they were analyzed descriptively using Spearman's rank correlation coefficient.

Results and Discussions: The results of this study showed that most of the respondents (63%) were females; most of them (60.4%) were 36-45 years; most (46.1%) had primary school background; most (67.5%) had jobs with income above the average (63.6%). Moreover, their saltwater consumption was in frequent category, totaling 61.7%. The results of blood pressure measurement showed that most of them (59.1%) had pre-hypertension. The result of Spearman's rank correlation coefficient showed that $\rho = 0.000$ and $\alpha = 0.05$ so that H_0 was rejected illustrating that there was a correlation between saltwater fish consumption pattern and incidence of hypertension.

Conclusions: In conclusions, frequent consumption of saltwater fish will lead the blood pressure to be in normal category/pre-hypertension. Hence, the people living in the coast should consume saltwater fish frequently to decrease high blood pressure and various risks of cardiovascular diseases.

Keywords: saltwater fish consumption pattern, hypertension

RHODAMINE-B INCREASES CELL APOPTOSIS CEREBELLUM AND BRAINSTEM TISSUE IN RATTUS NORVEGICUS RELATED REGARD TO IMPAIRED COORDINATION AND ACCURACY OF MOTOR FUNCTION, MOTOR LEARNING, SLEEP-WAKE CYCLE DISORDERS, AWARENESS, RESPIRATORY AND CARDIOVASCULAR CONTROL, IMPAIRED FACILITATION OF COMMUNICATION BETWEEN BRAIN TISSUE

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Introduction : Rhodamine B is included in xenobiotic substances which will be metabolized by cytochrome P450 in the body to produce free radicals. Free radicals (ROS: reactive oxygen species) produced will affect the activity of Superoxidase Dismutase (SOD) which leads to oxidative stress and cell injury to target cells and increase cell apoptosis (imbalance ratio between BAX and BCL-2) especially in cerebellum tissue and brainstem. The aim of the study is to find to know effect of Rhodamine B on the expression of BAX and BCL-2 in cerebellum and brainstem tissue on *Rattus norvegicus*.

Method: “True Experimental Design”. The selected design was “the post test only control group” using twenty-eight Wistar female *Rattus norvegicus* mouse age of 10-12 weeks. The mouse were assigned into 4 groups of dose treatment including control, dose of 4.5 mg/200 g body weight, dose of 9 mg/200 g body weight, and dose of 18 mg/200 g body weight. They were administrated by Rhodamine B peronde for 36 days.

Results and Discussions: The results showed that Rhodamine B not only had a direct effect on BAX expression, but also indirectly affected BCL-2 expression in the cerebellum tissue and wistar strain *Rattus norvegicus* brainstem. Rhodamine B increase will have a direct impact on increasing BAX Expression and indirectly reduce BCL-2 expression in the cerebellum tissue and wistar strain *Rattus norvegicus* brainstem along with an increase in Rhodamine B dose. BAX expression has a significant direct effect on BCL-2 expression. The positive path coefficient means that BAX expression has a positive effect on BCL-2 expression. Increased Expression of BAX, will have a direct impact on decreasing BCL-2 expression in cerebellum tissue and brainstem *Rattus norvegicus* wistar strain along with increased dose of Rhodamine B.

Conclusions : Conclusion of the study, Rhodamine B has been verified to increase BAX expression which directly decreases BCL-2 expression Cerebellum tissue and Brainstem in *Rattus norvegicus* along with increasing doses.

Keywords: Rhodamine B, BAX, BCL-2, cerebellum and brainstem tissue

SMARTPHONE TECHNOLOGY TO CONTROLLING OBESITY IN ADOLESCENT: LITERATURE REVIEW

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Introduction: Obesity is a health problem throughout the world, even WHO says obesity has become a global epidemic that must be addressed immediately. The prevalence of obesity is increasing in various countries including in Indonesia, especially in big cities. Lifestyle modifications such as diet and physical activity patterns are effective enough to lose weight. Some studies that intervene to change the subject's behavior in a better direction sometimes do not fully succeed. Weaknesses can be caused by a lack of monitoring and adherence to the subject's participation in the intervention so that a strategy is needed to improve adherence to dietary intervention and physical exercise so that the desired effect is more quickly achieved. Several ways of approaching obesity management have been done to get better results including using smartphone technology to monitor obesity obedience.

Method: This literature review is based on several references obtained through online databases in the past 10 years. Articles are selected based on research methods. The journals were mostly from the scholarly journals. The keywords used are obesity and the use of smartphone technology.

Results and Discussions: The reduction in body weight and other variables was better for patients who received nutritional counseling interventions and physical activities accompanied by monitoring via smartphones compared to other methods. The use of smartphone technology can help monitor patient compliance so that the results obtained are better.

Conclusions: The use of smartphone technology in the management of weight loss in obesity can be recommended.

Keywords: smartphone technology, obesity, adolescent

ANALYSIS OF ACUTE CORONARY SYNDROME (ACS) PATIENT BEHAVIOR FACTORS IN OVERCOMING THE EVENT OF CHEST PAIN IN PRE HOSPITAL PHASE

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Introduction: Acute coronary syndromes (ACS) is a comprehensive disease concept characterized by acute myocardial ischemia caused by coronary artery plaque disorders and due to stenosis or occlusion of coronary arteries induced by thrombosis, which causes unstable angina (UA), acute myocardial infarction (AMI) or due to stenosis or occlusion of coronary artery-induced thrombosis, which causes unstable angina (UA), acute myocardial infarction (AMI) or sudden cardiac death. Handling and rapid detection of chest pain is needed so that there is no delay in the pre-hospital phase. One of the delay in handling is related to various factors, namely behavior. The cause of the time delay in handling before entering the hospital for SKA patients is due to the behavior of seeking health services, where patients delay and are hesitant to immediately seek medical help at the hospital. The usual action is simply rubbing balm or buying medicine in a barn, and they do not immediately bring it to the nearest Puskesmas or hospital. This study aims to analyze the behavioral factors of ACS sufferers in overcoming the incidence of chest pain in the prehospital phase

Methods: This research uses consecutive sampling technique with cross sectional method. The sample was 110 outpatient respondents at the Puskesmas Kalisat Jember.

Results and Discussions: After the logistic regression test, it was found that there was a significant relationship between the occurrence of chest pain with compressive behavior factors, buying drugs at the stall, massaging and rubbing. a significant association between the occurrence of chest pain behavior in the pack (p value = 0.040), buy drugs in a stall (p value = 0.001), massaged and rubbed with oil (p value = 0.046).

Conclusions: There is a significant relationship between how to deal with the incidence of chest pain with behavioral factors in a compress, buy medicine in a stall, massage and rub with oil.

Keywords : behavior, ACS, chest pain, prehospital phase

THE INFLUENCE OF ORGANIC WASTE MANAGEMENT ON INFECTION DISEASE INCIDENT TRANSMITTED THROUGH THE DISEASE VECTOR

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Introduction : The research was carried out in accordance with the Superior Research Road Map of the Center for Settlement, Environment and Infrastructure (PSPLI - ITS) and Community Service Grant (Structuring Settlements to Realize the Village Sustainable). Environmental and public health programs are designed with the theme of Improving Sustainable Village Health Status. Based on this background, this research was conducted to see how the status of environmental health (Keputih Village); what is the health status of the community (Keputih Village Community); and how the significance of the relationship of environmental health status, especially the management of organic waste with public health (Incident Infection) in study area.

Methods: The methods used are: direct observation, questionnaires, in-depth interviews to 75 selected respondents and related stakeholders (village heads, health cadres), and related secondary data. While the sampling technique is done by purposive random sampling method. Data processing and analysis techniques are interpretative, causal, descriptive and reflective critical analyzes.

Results and Discussions: The research results have a significant influence on between Organic Waste Management and Incident Infection Disease transmitted through the Vector Disease. The research contribution is to be able to contribute ideas to the management of organic waste and infectious diseases. It can be used as input for policy makers, as a model for implementing the Sustainable Development Goals (SDGs).

Conclusions: The follow-up of this research is the assistance of organic waste management with simple composter technology and environmental health education to Health Cadres in Keputih Village as a form of ITS Corporate Social Responsibility (CSR) as a legal entity.

Keywords: organic waste, simple composter, infectious disease, disease vector, environmental health status

A NOVEL ASSESMENT TOOLS FOR EARLY PREDICTING GREEN TOBACCO SICKNESS: A CASE CONTROL STUDY ON TOBACCO FARMERS IN INDONESIA

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Introduction: Green Tobacco Sickness (GTS) is a disease that is often experienced by tobacco farmers characterized by symptoms of nausea, vomiting, dizziness, excessive sweating. GTS is experienced by farmers who contact with newly harvested tobacco. GTS can be detected through cotinine in the blood, urine and saliva samples of tobacco farmers. Cotinine examination is done after contact with the leaves of the plant at least in the last three days. Farmers who experience GTS will experience impaired work productivity. To predict GTS an instrument is needed that can earlier measure the probability of GTS, so that it can be prevented.

Methods: The research design used is the Case Study involving 155 respondents of tobacco farmers who were randomly selected. The data analysis used is Logistic Regression.

Results and Discussions: The results revealed that factors influencing the incidence of GTS in tobacco farmers were age ($p = 0.078$), length of service ($p = 0.028$), smoking status ($p = 0.000$), dermatosis complaints ($p = 0.020$), and Body Mass Index or BMI ($p = 0.972$). The incidence of GTS can be predicted using the formula $Z = -1,036 + 0,868 \text{ age} + 1,080 \text{ years of service} + 2,895 \text{ smoking status} + 1,355 \text{ complaints of dermatosis} + 0,972 \text{ BMI}$. Cut off point if Z score ≤ 0 is a probability of small agricultural skin diseases. Conversely, if Z Score is > 0 , then the probability of agricultural skin diseases is large.

Conclusions: This instrument is used to predict the incidence of GTS in the pre-pathogenesis phase, so that the incidence of occupational diseases can be prevented earlier.

Keywords: green tobacco sickness, occupational diseases, tobacco farmers

INFLUENCE OF NUTRITIONAL STATUS ON ACADEMIC ACHIEVEMENT OF STUDENTS IN PAMPLONA, COLOMBIA

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Introduction: Nutritional status is an important factor in academic performance during childhood. A cross-sectional study was carried out to find the relationship between nutritional status and academic performance in students in Colombia of one Public School in 2017.

Method: Two hundred and seventy-two children aged 5-18 years old participated. Age, gender, ethnicity, living arrangements, mothers' and fathers' education level, economic status, religion and BMI (Body Mass Index) were examined. WHO AnthroPlus syntax was used for BMI. Data analysis was performed using the statistical software SPSS version 24. The analysis involved univariate, bivariate and multivariable analysis. Chisquared tests and Fisher's exact test were performed.

Results and Discussions: Two hundred and twenty-five students participated in the school feeding program. Around three-fourths of the participants had normal BMI for age reported. An association between complimentary breakfast and Science performance was observed. The odd of passing the Science subject was 4.3 times (95% CI 1.1- 16.6) among those who sometimes received complimentary breakfast as compared to those who never received it.

Conclusions: A positive association between complimentary school breakfast and Science academic performance has been observed in this study. Future research with larger sample is needed to establish this association.

Keywords: academic performance, cross-sectional study, nutrition, school feeding program, school-students Colombia.

DRAFTING OF THE SMOKE FREE REGULATION IN BLITAR DISTRICT INDONESIA

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Introduction: In 2014 Blitar City did not have smoke free regulation to develop public health in their city yet. Smoke free regulation is one of the efforts to control the tobacco impact by smoke free area. Tobacco Control Support Center East Java supported this regulation for 5 years until its launch. The purpose of this study is to describe the success story of the Smokefree Regulation drafting in Blitar District, East Java, Indonesia.

Method: This study was an action research from 2014 until 2019. The method of this study was rapid survey, in-depth interview, focus group discussion, air quality monitoring PM_{2.5}, advocacy to executive and parliament.

Results and Discussions: Results showed that after 5 years of action research, the smoke free regulation has been launched and implemented. The activities were rapid survey to know public opinion about smokefree regulation from 1008 persons in Blitar District and air quality monitoring in 16 public places. The two methods were to collect data about the urgency of smokefree regulation in Blitar District. The data is very urgent to be based on arguments for parliament. The other activity was in-depth interview and focus group discussion many times with executive and parliament. Besides that, we conducted press conferences, talk shows, public hearings, dissemination, and sending press releases to 30 mass media. Non-formal talks like drinking coffee and social media talking are important things to encourage the regulation.

Conclusions: Advocacy is not only meeting and talking but also needs data, time, relationship, and trust from all stakeholders. The recommendation of this study is to not stop advocating executive and parliament, and making good relationships with them to succeed a regulation.

Key words: smoke free regulation, Blitar, cigarettes

THE CORRELATION BETWEEN FAMILY SUPPORT AND ADAPTABILITY OF OUTPATIENTS DIAGNOSED WITH POST-TREATMENT HALLUCINATION AT MENTAL HEALTH UNIT, MENUR MENTAL HOSPITAL SURABAYA

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Introduction: Hallucinations are one of the most common symptoms of mental disorder. Family is the main support system that has a role to provide direct care in health and illness. The purpose of this study was to identify the relationship between family supports and the adaptability of outpatients with post hospital hallucinatory diagnosis.

Method: Design of this study was quantitative research and descriptive correlation, using non probability sampling technique with purposive sampling approach. Samples were taken from patients of post-treatment hallucination, as many as 101 people. Independent variable was family support, and dependent was adaptability. Instruments of family support were questionnaires of Friedman and adaptation skills using questionnaires from Nursalam. Data were analyzed using Spearman rho test with result ρ 0.005.

Results and Discussions: The result of the study showed that most families provide good support, and the adaptability of patients with hallucinations were largely adaptive. Based on correlation results obtained $r = 0,803$, which means good family support was associated with adaptive ability of adaptation patients.

Conclusions: The implications of this study was to indicate that family support affected the adaptability of post-treatment hallucination patients, so families need to provide good family support to enable patients to adapt adaptively.

Keywords: Family support, Adaptability, Hallucination.

THE INFLUENCE OF MENTORING ACTIVITIES ON MATERNAL WEIGHT GAIN AMONG PREGNANT WOMAN IN WEST SURABAYA AREA

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Introduction: Since the conception period until the age of 2 years after birth or known as the first 1000 days of life (HPK) is a golden period that determines the quality of humanity in the future. This shows that maternal nutritional status during pregnancy provides an important role in pregnancy outcomes. The relationship between nutritional status in early life with the risk of chronic diseases has developed, including the thrifty phenotype hypothesis, developmental plasticity, fetal programming. Basically, it is equally related to the important role of human development from conception to the first 2 years of life in determining the quality of life thereafter. The purpose of this research is to find out the average increase in weight gain before and after mentoring, the average increase.

Method: The study was conducted by processing secondary data from results of mentoring reports on pregnant women from 2017 to 2019 at the location of 12 Puskesmas in the West Surabaya Region. The population in this study were all housewives who received mentoring and pregnancy who supported 191 people. The sample was taken randomly from the number of 191 people who received mentoring and became pregnant. Through the calculation of a large sample obtained 106 samples. Data analysis was performed using a Wilcoxon Signed Ranks Test because body weight before mentoring abnormal.

Results and Discussions: The average body weight increase was 18.94% and the average increase in BMI was 7.46%. The results of the statistical test obtained significant mentoring of pregnant women to the increase in maternal body weight indicated with a p-value of 0,000.

Conclusions: Mentoring to pregnant women will have an effect on the increasing body weight of pregnant women, so that the nutritional status during pregnancy can be maintained well until the time of birth.

Keywords: body weight, mentoring, pregnant women.

SELF-IDENTIFIED MOTIVATORS FOR PHYSICAL ACTIVITY: PERSPECTIVES OF AMBULANT NURSING HOME SENIORS

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Introduction: Inadequate Physical Activity (PA) among elderly nursing home residents is a pressing public health challenge due to poor health outcomes and disproportionately large effect on health care systems. Overly burdened with expensive, chronic conditions and disability, they represent the largest society segment in contact with health care systems, for the longest period, at enormous societal and economic cost. Residents do not undertake sufficient PA to avail themselves of its many disease fighting and protective benefits, poor rates of adoption remain an issue. There is pressing need for more research into residents PA motivators to inform population acceptable PA interventions. This research explored increasing residents motivation to adopt PA and proposes a novel model to do so.

Method: Exploratory qualitative research explored experiences of PA of older nursing home residents. An interpretive phenomenological approach guided data collection and interpretation via semi-structured interviews with open-ended questions and thematic analysis. Participants were seven, Brisbane, Australia, residents aged 68 to 94 years. Ethical approval Griffith University's Human Research Ethics Committee (2018/572). All gave informed consent prior to inclusion.

Results and Discussions: to residents, socialisation is paramount. Two major themes emerged: socialisation and maintaining independence. Positive socialisation (inclusion) was residents PA motivator, negative socialisation (conflict) their barrier, their benefit was maintaining independence, to socialise.

Conclusions: Results found conventional PA programs disconnected from residents motivators. Orthodoxy promotes PA via clinical benefits; whereas residents perceive benefits in terms of socialisation and mobility, partially explaining poor population-acceptability and uptake over the last 20 years. This insight influenced development of a novel 'salutogenic socialisation continuum model of PA' to increase motivation, linking benefits to residents motivators.

Keywords: benefits; motivation; nursing home; physical activity; seniors.

CASE STUDY OF DENGUE HEMORRHAGIC FEVER (DHF) IN BALI PROVINCE, 2012-2017

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Introduction: Dengue Hemorrhagic Fever (DHF) is still a public health problem in Indonesia. The number of sufferers is increasing and the distribution is getting wider. In the tropics, Dengue Hemorrhagic Fever (DHF) is a health problem because it still occurs in endemic areas, which is generally a source of disease spread to other regions. Bali Province was ranked first in the incidence of Dengue Hemorrhagic Fever (DHF) in Indonesia. So to reduce the number of incidents it is necessary to know the cause of the increase in the incident. Control efforts have been carried out by programs at the provincial and district / city level. The study was conducted in the Province of Bali in 2019. The purpose of this study was to analyze the incidence of DHF in the Province of Bali. The choice of the Province of Bali as a research location was because the incidence of DHF was quite high and tended to increase over time.

Method: The data collected is secondary data in the period of 2012 to 2017 on a monthly basis, which comes from the Bali Provincial Health Office (DHF disease data) and climate data namely rainfall, rainy days, temperature and humidity from the Meteorology Climatology and Geophysics Agency (BMKG).

Results and Discussions: The results show that geographically the DHF events in Bali are in the south to the eastern part of the island, and DHF events in Bali are seasonal, with most DHF events reported during January to May. Local weather and socioecological conditions including rainfall, rainy days, and population density are related to the social and temporal dynamics of DHF in all regencies/cities of the province.

Keywords: endemic DHF, Bali, local weather, social dynamics

DOES THE HOUSEHOLD FACTOR AFFECT THE QUALITY OF LIFE OF THE PRODUCTIVE AGE POPULATION?

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Introduction: An assessment of the quality of life of the productive age population needs to be done. The quality of life of this group vague determines the development of a nation. Empirical study has found various factors related to the quality of life, especially individual-related factors. However, the ecological theory states that environmental factors, including household factors, influence each individual. This study aims to investigate factors associated with the quality of life among reproductive ages in the general population, including individual factors and household level factors.

Method: A population-based cross-sectional study was carried out in 23 provinces in Indonesia. Quality of life was measured using modified the 46 items Indonesia Family Life Survey (IFLS) questionnaire. The total number of productive age people 15-64 years, i.e., 14953 subjects and 9706 households used as the population in the analysis. Determinant factors tested in this study are individual factors, including socio-demographics (age, gender, education, marital status) and household sanitation. Multiple regression was conduct by the Multilevel logistic regression.

Results and Discussions: The finding reveals that the quality of life mean value is 4.66, median= 4.76, and only 50.5% of productive age population have a good quality of life. Factors related to the quality of life are socio-demographic factors, i.e., age, gender, marital status, and level of education.

Conclusions: Households sanitation factors also affect the quality of life, but the results of the study reveal that the variance between households is more significant than the variance of household sanitation (IOR=0.27-3.86)

Keywords: health-related quality of life, productive age, quality of life, sanitation

INDOOR AIR QUALITY AND INDIVIDUAL CHARACTERISTICS RELATED TO THE SICK BUILDING SYNDROME (SBS) IN SHARIA AND FAD DIVISION STAFF IN THE BANK X OF 2018

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Introduction: Sick building syndrome (SBS) is a group of symptoms relatively common among office workers related to office buildings of unclear causes because they get better on leaving the building; such symptoms could have an impact on the workers' productivity and also could have an impact of the workers' health. SBS seems to be related to air quality from indoor and outdoor sources. This study aims to analyze indoor air quality and individual characteristics related to occurrence SBS in Sharia Division and FAD Division at X Bank.

Method: This is a cross sectional study design. With a population of 110 employees, the sample used was 60 Sharia and FAD Division staffs. The scope of this study includes the physical quality of air indoor (temperature, humidity, ventilation rate, lighting and dust levels) and characterizing individuals (age, sex, working time, years of service and smoking habits) by interviewing using a questionnaire, related to occurring SBS of staffs.

Results and Discussions: The results show that from the 4 physical air quality parameters in the room only the temperature parameter (p value = 0.039) has a relationship with incidents of SBS ($p \geq 0.05$) and the 4 individual characteristics, only age (p value = 0.005) has relationship with SBS incidents felt by Employees at Bank X ($p \geq 0.05$).

Conclusion: It is recommended to improve the quality of air in the building, periodically checking the physical quality of the air, maintaining the cleanliness of the workspace and implementing a healthy lifestyle every day.

Keywords: Sick Building Syndrome (SBS), physical air quality, bank employee.

Theme 2 : Innovative Strategies and Healthy Urban Living

SUSTAINABLE DEVELOPMENT, PUBLIC HEALTH, ACCESS TO MEDICINES AND FAILURES OF THE CURRENT INNOVATION MODEL

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The UN's 2030 Sustainable Development Agenda gives central importance to health and well-being. This research asserts that both robust development and equitable dissemination of health-related innovative technologies is of pivotal importance in implementing the health-related Sustainable Development Goals. Part I of this paper argues that there is a strong nexus between public health sustainable development. Part II argues that the current patent-based innovation model has failed to incentivize innovation in case of poor country-specific neglected tropical diseases. The universal goals of the 2030 Sustainability Agenda cannot be achieved if a vast majority of the global population is left behind. Part III contends that the current innovation model has failed in equitable dissemination of innovative health technologies because of prohibitively high prices of patented technologies. Part IV concludes that the research driven by commercial considerations does not offer a solution to the access and innovation challenges faced by the poorer countries.

Keywords: Intellectual property, sustainable development, right to health, access to medicines, pharmaceuticals, drug patents, neglected tropical diseases, innovation failures

COMPARISON OF DISASTER PREPAREDNESS BETWEEN COUNSELING WITH AUDIO-VISUAL AND VISUAL MEDIA IN ELEMENTARY SCHOOL STUDENTS IN CENTRAL SULAWESI

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Introduction: The Central Sulawesi region is one of the areas prone to earthquakes and tsunamis in Indonesia. The low level of knowledge of the community, especially children who are the age most vulnerable to the risk of victims in a disaster. The vulnerability of children to disasters is triggered by a limited understanding of the risks around them, which results in the absence of preparedness in the face of disasters. This study aims to compare the level of disaster preparedness between providing counseling with audio-visual media and visual media in elementary school students in Sigi District.

Method: This research used a quasi-experimental with the pretest-posttest design. 48 respondents were divided into two groups, namely audio-visual media and visual media groups. Respondents were determined by the total quota sampling technique. Data was collected using questionnaires and observation sheets. Data analysis using t-dependent and t-independent test.

Results and Discussions: The results of the t-dependent test showed that the audio-visual media group had a significant influence on improving preparedness ($p = 0,000$). The visual media group also has a significant influence on improving preparedness ($p = 0,000$). The results of the t-independent test found a significant difference in the level of preparedness between the audio-visual media group and the visual group, where the audio-visual media group had a greater level of preparedness than the visual media group ($p = 0.04$).

Conclusions: Shows that the audio-visual media counseling method can have a greater influence on the increase in preparedness compared to visual media.

Keywords: counseling media, disaster preparedness, elementary school

THE INFLUENT OF COLOSTRUM ADDING IN TOOTHPASTE AND S Ig A FACTOR TO PREVENT SCHOOL AGE CARIES IN UJUNG TANAH SUB DISTRICT MAKASSAR

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Introduction: Dental caries is a major public health problem. The way to prevent dental caries in children is tooth brushing with adding antimicrobial proteins in colostrum such as lactoperoksidase, lactoferrin and lysozyme to oral health toothpaste. The purpose of this literature review is to know the influent of colostrum adding in toothpaste and Secretory IgA (S Ig A) to prevent school age caries in Ujung Tanah Subdistrict, Makassar.

Method: This research used a systematic literature review. Various references were collected from online databases including ProQuest, reports, journals and books in the last 5 years. Approximately 632 of colostrum and S Ig A articles and using English in the last five years related to public health were reviewed. The role of S Ig A in improving oral mucosal defence against pathogenic bacteria *Streptococcus mutans* as the major etiology of dental caries. The journals were mostly from the scholarly journals. The articles were screened according to the research objectives. The keywords used are colostrum and school age caries.

Results and Discussions: This study showed that Colostrum adding in oral health toothpaste which proteins ingredients are lactoperoksidase, lactoferrin and lysozyme and S Ig A factor is very effective to decrease caries in children.

Conclusions: Based on present study revealed we concludes that colostrum toothpaste containing lactoferrin, laktoperoksidase and lyzosyme was highly significant in reduce the salivary level of mutans streptococci in caries. The dental health education is important thing to prevent the caries. Further recommendation will be provided.

Keywords: colostrum, S Ig A, dental caries, school age caries

DOES CONSUMPTION OF MORINGA COOKIES CAN INCREASE THE QUALITY OF BREAST MILK NUTRITION?

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Introduction: Breast milk comprises of various nutrition. Moringa oleifera is a local plant that is commonly found in Sulawesi and contains a lot of phytosterols which is high and can provide lactagogue effects so that it can increase milk production.

Method: This was a quantitative study with an experimental pre and posttest control design. The subjects were 21 breastfeeding mothers. 11 mothers in the intervention group were given 50gram moringa cookies each day for 1 month, whereas 12 mothers in the control group were not. The quality of breast milk was analyzed using Mann Whitney and independent t-test.

Results and Discussions: There was an increased level of vitamin C, fat and iron, while vitamin A level was decreased in both group (vitamin C (0.602±0.837) vs (0.799±0.617) p=0.647; fat (0.660±1.081) vs (0.816±1.089) p=0.745; iron (2.316±0.504) vs (1.290±0.612) p=0.001; vitamin A (-0.00032±0.0017) vs (-0.0007±0.00111) p=0.672. Carbohydrate and protein level were rose in control group, and declined in intervention group (carbohydrate (-0.527±1.893) vs (0.012±1.358) p=0.218; protein (-0.026±0.152) vs (0.085±0.181) p=0.146).

Conclusions: The consumption of moringa cookies can enhance the quality of breast milk nutrition, especially vitamin C, fat and iron level.

Keywords: breast milk, moringa cookies, nutrition.

THE IMPACT OF MULTIPLE MICRONUTRIENT SUPPLEMENTATION AND EDUCATION ON HEMOGLOBIN CONCENTRATION IN PREGNANT AND NEONATAL BIRTH WEIGHT

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Introduction: The prevalence of anemia in pregnant women in sub-Saharan Africa 57%, Southeast Asia 48%, and South America 24.1%. According to Basic Health Research (*Riskesdas*) data in 2018, the prevalence of anemia in pregnant women was 48.9%, higher than the prevalence in 2013 37.1%. Additional fact, pregnant women consume ≥ 90 iron tablets was only 24%. This is an ironic amid the incessant research, nutrition education and other government efforts to improve the nutritional status of pregnant women. This research aimed to analyze the impact of MMN supplementation and nutritional education using an android application on Hb levels of pregnant women and infant birth weight.

Method: This research used a literature review.

Results and Discussions: The MMN supplementation increased the micronutrient status of pregnant women. MMN increased Hb levels and decreased the incidence of LBW. Compared to the effects of giving Fe and folic acid alone, several studies have shown a non-dominant effect from both treatments. There are studies that even show no increase in the levels of hemoglobin, ferritin, iron, zinc and vitamin D due to MMN supplementation. Many studies have shown the effect of nutritional education on increasing nutrient consumption in pregnant women. The educational model with the android application shows a positive correlation to nutrient consumption.

Conclusions: MMN supplementation was increased Hb levels and decreased the incidence of LBW, although some studies showed inconsistent results. Nutrition education has a positive correlation with nutritional consumption behavior of pregnant women. The use of the android application can be an alternative model of nutrition education combined with routine education, although more extensive research is needed to be done in several regions with different characteristics.

Keywords: MMN, Hb, anemia, LBW, education

THE EFFECT OF INSULIN THERAPY VIDEO AS EDUCATIONAL MEDIA ON KNOWLEDGE AND ATTITUDE IN PATIENTS WITH DIABETES MELLITUS

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Introduction: Insulin is one of the therapies for diabetes mellitus that needs awareness in its management. Storage and usage method are crucial on the success of therapy for diabetes mellitus patients. Insulin might cause unexpected effects when used inappropriately. Lack of knowledge and understanding are one of the factors causing the occurrence of medication errors on insulin usage. Therefore, an appealing education media such as a video is needed to improve patient's knowledge and attitudes towards insulin therapy.

Method: One-group pretest and posttest design were conducted on 100 patients with type 2 diabetes mellitus who get subcutaneous insulin therapy at internal medicine unit in Universitas Airlangga Teaching Hospital. All patients got questionnaires to measure their knowledge and attitudes, before and after getting insulin therapy education through video. Data analyzed with SPSS using Wilcoxon Signed Rank Test Method.

Results and Discussions: After patients watch educational video on insulin therapy, the result represents an increasing value on patient's knowledge, which is the value of $Z = -8,212$ and $p < 0.05$, and also attitudes with the value of $Z = -8,234$ and $p < 0,05$.

Conclusions: Insulin therapy video increases knowledge and improves the attitude of diabetes mellitus patients who receive insulin therapy.

Keywords: Insulin, patient education, video, knowledge, attitude

LEMON AROMATHERAPY AS AN ALTERNATIVE TO REDUCE THE INTENSITY OF CHEMOTHERAPY-RELATED NAUSEA AND VOMITING EXPERIENCED BY THE BREAST CANCER PATIENTS

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Introduction: Breast cancer is the growth and breeding of abnormal cells that appear in the breast tissue. One of the common treatments for it is a chemotherapy using cytotoxic drugs. However, chemotherapy may cause nausea and vomiting as its side effects. Lemon aromatherapy is a complementary therapy in patients with breast cancer who experience nausea or vomiting. The purpose of this current study was to know the effect of lemon aromatherapy on the intensity of nausea and vomiting experienced by the breast cancer patients as an effect of chemotherapy in the Chemo Center Room of RSAL Dr. Ramelan Surabaya.

Method: The design of this study was the pre-experimental with pre- and post-test without control. The independent variable is lemon aromatherapy while the dependent variable is the intensity of nausea and vomiting. The sampling technique was nonprobability purposive sampling. There were 34 breast cancer patients taken as the sample. The data collection utilized questionnaires. The data collected were analyzed using the Wilcoxon Test ($\alpha = 0.05$).

Results and Discussions: The results indicated that there was a significant effect of the lemon aromatherapy on the intensity of nausea and vomiting experienced by the respondents, with the value of Wilcoxon test p (0,000). Lemon aromatherapy stimulates the raphe nucleus to produce serotonin which functions to generate a sense of comfort and calm.

Conclusions: For that reason, it can be used as an alternative to take care of nausea and vomiting experienced by the breast cancer patients as the side effect of chemotherapy.

Keywords: lemon aromatherapy, nausea and vomiting, chemotherapy, breast cancer

THE MATERNAL REFERRAL MOBILE APPLICATION SYSTEM FOR MINIMIZING THE RISK OF CHILDBIRTH

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Introduction: The maternal mortality rate in Surabaya in the last 3 years has decreased significantly, but it is still quite high at 79.40 per 100,000 live births in 2017. Even though it has shown good progress, Surabaya still occupies the second largest maternal mortality rate in the province East Java. The causes of maternal deaths included 3 being late (late in making a decision, late arriving at a health facility and late in receiving medical help). In-depth interview results in 6 Puskesmas in Surabaya, one of the other problems that risked causing maternal death was in the process of referring to the mother giving birth, because the Puskesmas had difficulty getting hospitals with available resources to accept the condition of the pregnant women to be referred. The issue of referral communication between the Puskesmas and the Hospital has become very important to be resolved, one of which is by developing a mobile app system in finding hospitals available for their resources to accept the condition of pregnant women to be referred. The main function of this mobile app is to reduce the risk of death for the mother in the delivery process. The purpose of this study is to develop a mobile app system framework for the maternal referral system.

Method: The mobile app is compiled with the user of the Puskesmas midwife and the IRD officer of the referral hospital. This mobile app is compiled based on the results of the FGD with midwives, doctors and Puskesmas heads about the referral system regulation contained in Surabaya City and FGD with obstetricians who agree on several indicators of maternal conditions that must be considered in the referral process and also refer back. This mobile app was developed with internet communication and SMS media with the default internet. So if the gadget is out of reach of the internet, then broadcast the message using the SMS feature. This automation was developed so as not to inhibit the sending of messages in an emergency.

Result and Discussions: The communication flow of this mobile app is to order emergency conditions at the Puskesmas Puskesmas to the hospital through the mobile app system, the available hospital resources based on the condition of patients being broadcasted responding to messages through the mobile app system, patients are referred and treated in hospitals. The process will end with referring back to the Puskesmas as a control service after giving birth. This mobile app has gone through a trial and development process currently in the process of structuring the mobile app based on the bugs that occur in the system.

Conclusions: This mobile app still needs development, especially in minimizing system bugs, because this mobile app-based referral system requires fast and accurate communication.

Keywords: maternal referral, risk of childbirth, mobile app system

THE EFFECT OF MULTIMICRONUTRIENT INTAKE ON INFANT GROWTH: LITERATUR REVIEW

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Introduction: The high prevalence of anemia in pregnant women in developing countries has been widely recognized as an important public health problem. Caused by negative consequences for pregnancy outcomes and their impact on maternal mortality. Currently, food intake and micronutrient studies (MMN) in various countries show that, in addition to anemia, deficiencies such as vitamin A, zinc, vitamin B12, iodine, and folate are also widespread and have a negative impact on pregnancy outcomes. Stunting (dwarf) is a condition of failure to thrive where a toddler has a length or height that is less when compared to his age. This is caused by chronic malnutrition so that the child is too short for his age.

Method: This study uses the design used is Literature review. Articles were collected through Cochrane, Science Direct, Pubmed, Elseiver, Proquest (Links came from the library unhas.ac.id) Pubmed, WHO, Google Scholar. The keywords used are MMN, pregnant women, growth and development of children.

Results and Discussions: Based on the reading of the article, it was shown that the need for micronutrients (MMN) at the time of preconception, pregnancy to pregnancy outcomes was very important to be able to influence growth and development in children. The provision of multi micronutrient supplementation (MMN) single nutrient, or a combination of 2-3 nutrients during pregnancy does not have an impact on the baby's body length. However, early assistance or preconceptions about contributing to an increase in the baby's body length.

Conclusions: Giving MMN since early pregnancy greatly affects the growth and development of children.

Keywords: MMN, infant growth

POTENCY OF SWEET POTATO STARCH (*Ipomoea batatas* Lamk.) AS EXCIPIENT IN TABLET FORMULATION

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Introduction: Indonesia is one of the biggest producer of sweet potato starch in the world, but Indonesia also as an importer of modified starch from others countries. Sweet potato has a potential utility as a raw material of tablet excipient however it needs chemical modifications to produce derivatives that have good pharmaceutical characteristic. Therefore, this research aimed to develop tablet dosage form sweet potato starch (*Ipomoea batatas* Lamk.) that was modified using chemical process and compared with native starch in order to improve the pharmaceutical characteristic.

Method: This research is an experimental study in laboratory and divided into three stages. The first stage is the extraction process to get sweet potato starch. The second stage is the chemical modification of sweet potato starch using pentanol-1 and glacial acetic acid. The third step is the analysis of the pharmaceutical properties of sweet potato starch compared to unmodified sweet potato starch and Amprotab.

Results and Discussions: Based on descriptive-comparative analysis, it showed that sweet potato starch modified with pentanol-1 had a higher hardness value ($\bar{x}=2.55\pm 0.34$) compared with native starch ($\bar{x}=1.00\pm 0.08$). Particle size distribution of modified starch with acetate acid ($\bar{x}=15.20\pm 1.79$) was greater than the others modified starch.

Conclusions: From these analyses, it can be concluded that modified starch characteristics was better than native starch.

Keywords: modified starch, sweet potato starch, excipient development

LAMPS TO SUFFER DIABETES MELITUS AS A BIOMARKER IN LUNG TUBERCULOSIS INFECTED

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Introduction: More efficient preventive measures are effective in preventing the transmission of pulmonary tuberculosis. Likewise, experienced by people with *Diabetes Mellitus* (DM) who are sufferers of chronic metabolic disorders that can cause interference with other vital organs due to increased glucose concentration in the blood, including decreased immunity. This causes the sufferer to easily contract the surrounding disease. Over time, the immunity of people with DM experience problems, especially the threat of *Mycobacterium tuberculosis* germs in the air due to droplets from patients with pulmonary tuberculosis.

Method: This study aims to see how long DM sufferers are infected with pulmonary tuberculosis. This study is a study that uses secondary data with treatment. The population is all DM sufferers recorded in the medical record at 16 Health Centers in Manado City. A total sample of 225 respondents there are 2 methods of taking, 1). All DM patients with pulmonary tuberculosis who did the examination at the Health Center, amounting to 193 respondents 2). All DM sufferers who did the examination and coughed for more than 2 weeks, amounting to 32 respondents. Respondents were re-examined microscopic sputum to see the presence of *Mycobacterium tuberculosis*. Data is processed and narrated descriptively.

Results and Discussions: Patients with DM more than 5 years old 65.38% who are positively infected with *Mycobacterium tuberculosis*; DM less than 5 years as much as 53.18% infected.

Conclusions: The longer DM sufferers can become susceptible biomarkers of *Mycobacterium tuberculosis* infection.

Keywords: duration, biomarker, diabetes mellitus, pulmonary tuberculosis

THE EFFECTIVENESS OF KANGAROO MOTHER CARE PROMOTION AMONG COMMUNITY HEALTH WORKERS IN KAMPUNG MELAYU VILLAGE, JAKARTA

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Introduction: Kangaroo Mother Care (KMC) is one method to save Low Birth Weights' (LBW's) infants. There needs support in the implementation of KMC in the community, including community health workers. The purposes of this study were to assess the effectiveness of KMC promotion in improving knowledge and attitude regarding KMC among community health workers and to assess the willingness of community health workers regarding KMC mentoring in Kampung Melayu village, Jakarta.

Method: This study was conducted on community health workers in Kampung Melayu village, Jakarta, amounting to 40 people. A quasi-experimental method was used with a pre-test and post-test design to assess knowledge and attitude regarding KMC and a focus group discussion was used to assess the willingness of community health workers regarding KMC mentoring. The Wilcoxon Signed Ranks test was used to analyse the effectiveness of KMC promotion and a descriptive analysis was used to describe the willingness of community health workers to mentor KMC practice among LBW's infants' mothers.

Results and Discussions: The majority of respondents was 50-65 years old (66,7%), high school education (55,6%), housewives (86,1%), multipara (65%), and more than 5 years working time (52,5%). The results of statistical tests indicate an increase in knowledge of KMC ($z=-5.039$, $p<0.05$, CI 95%) and attitude regarding KMC ($z=-5.278$, $p<0.05$, CI 95%) between pre and post-test. All community health workers are willing to make a home visit to LBW's infants' mothers to remind and motivate mothers to practice KMC, give breast milk, and weigh babies. If needed, they are also willing to help LBW's infants' mothers to tie cloth for KMC.

Conclusions: There was an increase in knowledge and attitude regarding KMC after KMC promotion was conducted. All community health workers are willing to mentor KMC practice among LBW's infants' mothers through home visit. Good knowledge and attitudes regarding KMC on community health workers is expected to prepare them to mentor KMC practice among LBW's infants' mothers.

Keywords: community health workers, effectiveness, kangaroo mother care, knowledge, attitude, promotion

IMPROVING STUDENT'S SELF EFFICACY THROUGH PEER EDUCATION PROGRAM

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Introduction: student competencies are develop during their education at school. These competencies include those related to their coursework and their interpersonal skill. Peer education program in school contributes to the achievement of both competencies. Peer education program is considered effective as one of the social reinforcement in the school environment. In providing counseling to peers, peer educators must have self-efficacy to help their peers avoiding drug abuse. The purpose of this study was to explore the improvement of adolescents' self-efficacy after becoming peer educators.

Method: This research was a qualitative study with a case study research design. It was conducted by implementing in-depth interviews to 45 peer educators in 10 senior high schools.

Results and Discussions: The results of this study showed that the adolescents selected as peer educators perceived and experienced an improvement in their knowledge and ability to help their peers in avoiding drug abuse.

Conclusions: Peer education program perceived as a way to improve student's self-efficacy especially in their cognitive, motivation, affective, and behavioral tendencies. The local government needs to support the sustainability of peer education's program in high school by conducting capacity building activities to maintain the improvement of self-efficacy of these peer educators.

Keywords: drug abuse prevention, knowledge, peer educator program, self-efficacy, student

ASSOCIATION BETWEEN UNMETABOLIZED FOLIC ACID AND GENOTYPE OF MTHFR 677 C>T AND 1298 A>C OF INDONESIAN URBAN WOMEN: EAST JAKARTA COHORT STUDY

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Introduction: the methylenetetrahydrofolate reductase (MTHFR) has a major role in folate and homocysteine metabolisms. The role of MTHFR 677 C>T and 1298 A>C polymorphisms is determined on unmetabolized serum folic acid (UMFA) status in the Indonesian population, where folic acid supplementation and fortification have been applied for more than two decades.

Method: this longitudinal study was conducted in East Jakarta area initiated in 2014, recruiting 315 third trimester pregnant women. Follow-up was executed in 2018, re-visiting 127 mothers and their children, but only 74 of them participated in blood taking. Seventy-four serum UMFA samples in 2014 and 2018 were measured using Liquid Chromatography tandem Mass Spectrometry/Mass Spectrometry (LC-MS/MS). The genotype of MTHFR 677 C>T and 1298 A>C utilized Real-Time Polymerase Chain Reaction (RT-PCR). Anthropometric measurement used standardized equipment, food intake used repeated 24-hrs recall for weekday and weekend, and socioeconomic data were gathered during data collection.

Results and Discussions: the median of UMFA (25th; 75th percentile) in 2015 and 2018 was 0.64 (0.34;1.92) ng/mL and 0.67(0.28;1.37) ng/mL, respectively. The percentage of CC, CT and TT polymorphisms of MTHFR 677C>T were 67.6%, 25.7% and 6.8%, while AA, AC and CC of 1298A>C were 5.4%, 39.2% and 55.4%, respectively.

Conclusions: no significant difference on UMFA status during pregnancy and three-years post-partum, also no association between the genotype and UMFA level find in this study. A study involving a larger sample size of various ethnic groups is required to ensure the significance of the role of those polymorphisms in folic acid and folate metabolism.

Keywords: unmetabolized serum folic acid, genotyping, East Jakarta Cohort Study

WORKFORCE CAPACITY BUILDING TO IMPROVE CHILD HEALTH: THE 'HEALTHY KIDS' PROGRAM

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Introduction: The early years are a critical time period for child growth and development. Maximising opportunities for children during this period is critical for enabling positive child development and improving outcomes for children later in life. The early child education and care workforce plays a significant role in shaping children's health and development. However, research suggests there is a need to build capacity, knowledge, skills and resources within this workforce. In response, the Centre for Children's Health and Wellbeing has implemented 'Healthy Kids', an innovative strategy for building the early childhood education workforce in Queensland. This paper reports on the implementation process and outcomes of Healthy Kids.

Method: Healthy Kids incorporates a quarterly newsletter sent to 844 subscribers working in the early childcare sector, and quarterly professional development (PD) sessions delivered via webinar, including a reflective practice component, to 10 communities experiencing vulnerabilities in a number of areas. A survey was conducted with Healthy Kids participants. Quantitative data was analysed using descriptive statistics to determine frequencies with responses to open ended questions used to explain the quantitative data.

Results and Discussions: Survey responses were obtained from 65 Healthy Kids participants in 2017, the majority (86%) of whom attended at least one PD session as well as receiving the newsletter. The overwhelming majority (96%) of respondents indicated that they read, understood and often shared the newsletter with others. Survey respondents indicated that the PD sessions and newsletters were highly relevant, useful and convenient, and perceived the use of webinar to deliver the PD sessions as effective. The majority of respondents felt confident to apply information from the PD sessions and newsletter to their work, with many reporting they had implemented strategies and ideas in their practice. Healthy Kids has been successful in delivering highly relevant and useful information to early child education and care workers.

Conclusions: Through the use of innovation and technology, the strategy is able to reach a geographically dispersed population in a cost effective yet engaging format. Such innovative approaches can effectively increase the impact and reach of health promotion strategies and maximise limited available resources.

Keywords: early childhood, workforce capacity, innovative health promotion, webinar/newsletters

THE EFFECT OF MASSAGE COUNTER PRESSURE TO PAIN INTENSITY AT DYSMENORRHOEA

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Introduction: Dysmenorrhoea is one of the problems that occur in women who cannot be considered trivial, because there are some women who experience severe dysmenorrhoea level that impact disruption of some activity even some women who could not afford do any activity. This research aims to analyse the effect of massage counter pressure to pain intensity at diysmenorrhoea.

Method: This research method is analytic, pre post test design experiment (one shot case study). The sample is the whole student class 1 and class 2 high school experiencing tens dysmenorrhoea as much as 42 people.

Results and Discussions: The results showed the pain scale on student before the counter pressure is mostly experienced moderate pain (59.5%) and the pain scale after the counter pressure massage mostly experience mild pain (88.1%). The results of statistical tests using wilcoxon test obtained P value of 0.009 Value < a 0.05 this means there are effect of massage counter pressure massage to pain intensity at dysmenorrhoea.

Conclusions: there is effect of massage pressure to pain intensity at dysmenorrhea. For it is expected the public can make use of this massage to alleviate pain dysmenorrhoea since it does not require costly fees, as well as tools and there are no side effects, and is very good for woman who don't like taking medicine.

Keywords: Dysmenorrhea, Counter Pressure Massage, Pain Intensity

DIFFERENCES IN KNOWLEDGE OF ADOLESCENT CLASSES VII EXTENSION BEFORE AND AFTER COUNSELING OF MENARCHE

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Introduction: Menarche is the onset of first menstruation. While the period, menstruation is a periodic uterine bleeding that began with spending secretory endometrium, approximately 14 days after ovulation. Low knowledge of adolescents about menarche proved in a preliminary survey conducted in SLTPN 5 Surabaya on 15 girls, showed there were 12 female students were less knowledgeable (80%), 3 students were enough knowledge (20%) and no students were good knowledge (due to a lack of knowledge of students about menarche). The objective of this study was to determine the level of knowledge before and after given counseling of menarche in SLTPN 5.

Method: This research method using pre-experimental research design, one group pre-post test design. The samples in this study of 155 population using cluster random sampling obtained samples of 45 students.

Results and Discussions: After that tested statistically by T-test. The extension can be seen from the results of T-Test knowledge, arithmetic $17.38 T > T$ table 1.684. So there is a significant difference and T-test results, which means that these results also apply to the population.

Conclusions: Based on the results of research conducted in SLTPN 5 Surabaya, it can be concluded that the result of good knowledge obtained after the extension, which is expected midwife may cooperate with the school to add material about menarche in Reproductive Health in order not to fall into promiscuity that leads to unwanted pregnancy, and expected knowledge and insight about menarche adolescents become widespread, and the teens do not worry any more, and be more careful in the association.

Keywords: Knowledge, Menarche, Adolescent

THE EFFECT OF RED GINGER WARM COMPRESS ON BLOOD PRESSURE REDUCTION IN HYPERTENSION PATIENTS

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Introduction: Data from WHO (World Health Organization) in 2014, hypertension sufferers increased to 82.4%, and at the end of 2015 it reached 84.9%. Hypertension is the 11th disease that causes the highest death in the world, as many as 1,153,308 people. Whereas in Indonesia, hypertension is the number 3 cause of death with a presentation reaching 6.8% of the population, where in 2017 the prevalence of hypertension was 32.1% in 2018 the prevalence of hypertension increased to 34.1%. Pharmacological therapy is not the only alternative therapy that can be chosen. A companion therapy is needed to reduce dependence on drugs so that the quality of life of hypertensive sufferers can be maintained. The purpose of this study was to analyze the effect of warm red ginger compresses on blood pressure of hypertension sufferers in Bora Village, Sigibiomaru Regency, Central Sulawesi Province.

Method: This is a quantitative quasi experiment design study using pre and post test design without control design, the researchers only intervene to prove the effect of warm red ginger compresses on reducing blood pressure in hypertensive patients in one group of subjects without a comparison group.

Results and Discussions: There was a significant difference in systolic blood pressure before and after the red ginger compresses with p value <0.05 (p = 0.00) and systolic blood pressure was decreased which 9,143 of average. There was a significant difference in diastolic blood pressure before and after warm compresses of red ginger with a value of p <0.05 (p = 0.00) and diastolic blood pressure was decreased which 7,571 of average.

Conclusions: Warm compresses of red ginger affect the reduction in blood pressure of hypertension patients both systole and diastole.

Keywords: red ginger, warm compress, blood pressure, hypertension

THE INFLUENCE OF CAREGIVER AND MUSIC THERAPY ON DEPRESSION LEVELS OF STROKE PATIENTS AT THE GENERAL HOSPITAL PROF R. D. KANDOU, MANADO

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Introduction: Stroke is the term used to describe the neurological changes caused by the interruption of blood supply to a part of the brain. Cells - brain cells damage can cause disability function of sensory, motor, and cognitive such as depression. Some interventions for stroke patients overcome depression maximize the role of Caregiver and music therapy. This study aimed to determine the effect of music therapy on Caregiver and Depression Levels Decrease Stroke patients.

Method: This study used a quasi-experiment pre-post design with simple random sampling technique which involved sampling 74 respondents that were divided into 4 groups of 20 respondents' intervention Caregiver, 19 respondents intervention of music therapy, 20 respondents' joint intervention and 15 control respondents.

Results and Discussions: The results showed the majority of respondents aged 45-59 years (45.9%), male and female respondents as many (50%), long raid 1-4 days (71.6), with a heavy dependence (58.1%). After intervention for 3 days, it found no differences in rates of depression before and after the intervention in the intervention group Caregiver ($p = 0.000$), group music therapy intervention ($p = 0.000$), and the combined intervention group ($p = 0.000$). Ordinal regression test results indicated that the combined intervention provided the most powerful influence on the level of depression ($p = 0.001$) with a contribution of 68.6% compared to other interventions, namely Caregiver group ($p = 0.001$) with a contribution of 61.7%. Music therapy did not affect ($p = 0.986$) but has contributed most among the three intervention 82.6%.

Conclusions: The study recommended further research needs and interventions can be included as one of the independent intervention of nurses.

Keywords: Stroke, Depression, Caregiver, Music Therapy

RELATIONSHIP BETWEEN CARING NURSES AND ELDERLY LONELINESS IN THE SURABAYA SOCIAL SERVICE WORK AREA

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Introduction: Elderly people will experience changes both biologically, psychologically, socially and spiritually. Changes in the psychology of the elderly tend to be feeling lonely. Loneliness is a significant problem for the elderly, because it can have a negative impact on the physical health and well-being of the elderly in old age. The impact is that the elderly will experience stress to depression. Nurses as providers of care for the elderly must be able to present besides the elderly to prevent loneliness that arises in the elderly. This study aims to determine the relationship between caring nurses and the level of loneliness in the Surabaya Social Service Work Area.

Method: The design of this study used an observational analytic design with a cross sectional approach. The samples were taken using Probability Sampling Technique with Simple Random Sampling approach and obtained a sample of 113 elderly people at the UPTD Griya Werdha Jambangan and 18 elderly people at the UPTD Liponsos Keputih Surabaya. The instrument of this study used CBI 24 Items and UCLA Loneliness Version 3. Analysis of data used the Spearman's Rho Test with a level of $\rho < \alpha = 0.05$.

Results and Discussions: The results showed that caring nurses can prevent the emergence of loneliness in the elderly with the results of the Spearman's Rho test $\rho = 0.00015$ ($\rho \leq 0.05$) and the correlation coefficient $r = -0.686$ which means there was a strong relationship (0.60 - 0.80) between nurse caring variables and levels lonely elderly. From the results of this study. So it can be concluded that there is a relationship between caring nurses with the level of loneliness the elderly in the work area of the Surabaya Social Service.

Keywords: Elderly, Loneliness, Caring Nurse

FACTORS INFLUENCING THE ATTENTION OF PATIENT TOWARD AUDIOVISUAL - HEALTH EDUCATION MEDIA AT WAITING ROOM OF PUBLIC HEALTH CENTER (PUSKESMAS)

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Introduction: Community Health Center (Puskesmas) is a primary health care in Indonesia that emphasize their activities at promotive and preventive efforts rather than curative and rehabilitative. One of the problems in health promotion activities at Puskesmas is the limited number of health personnel to perform health education. Health education media has an opportunity to resolve the limitation of the health educator to facilitate the process of patient education. The objective of this study was to determine the impact of personal factors (age, sex, education level, and occupation), the severity of health problems, environment situation, and patient activities during at waiting room of Puskesmas toward their level of attention to audiovisual media.

Method: Research design was pre-experimental design (post-test only design). Researcher created 12 kinds of short film on video format that contain health messages, or the information related to the services of community health center; then the media was run in LCD panel at waiting room of community health center of Ngadi, Kediri District, East Java. The population of the research was the visitor/ patient of community health center who was 15 years old or older and sought to help him/herself. The sample was 124 visitors/ patients selected randomly during the period of research (during two weeks after video installation). The dependent variable in this research is attention. Independent variables are age, sex, education level, occupation, the severity of health problems, environment situation, and patient activities. Data were obtained by questionnaire and analyzed with ordinal regression with $\alpha=0.05$.

Results and Discussions: Based on the statistical analysis, Wald value and the significance of each independent variable consecutively are: Age 7.589 (sig. 0.006), sex 0.381 (sig. 0.537), education level 1.682 (sig. 0.95), occupation 0.369 (sig. 0.544), severity 4.045 (sig. 0.044), environment situation 56.358 (sig. 0.000) and visitor activity 14.095 (sig. 0.000). There was no influence of sex, education level, occupation toward attention, and there was the influence of age (OR 1.04), severity (OR 0.86), environment situation (OR 0.61), and visitor activity (OR 0.52) toward their attention to audiovisual media.

Conclusions: There was an influence between age, the severity of health problems, environment situation, and visitor activity toward visitor/ patient awareness to audiovisual media in the waiting room of the community health center. It is suggested for the next research to analyze the effectiveness of the media by measuring patient/ visitor knowledge related to the content of media.

Keywords: attention, health education, audio-visual media, community health center

CASCADE AERATOR METHOD WITH VARIATIONS IN THE NUMBER OF STEPS AGAINST DECREASED IRON (FE) LEVELS IN CLEAN WATER

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Introduction: Chemical contamination of water caused by ferrous metals, due to the geographical location of the former settlements of swamp and rice fields, allowed concentration of 1.0 mg / l. The quality water in Griya Satria Jingga Housing has an iron content of 2.3 mg / l exceeded the water quality standard based on Permenkes No. 32 year 2017. Research problem is how to decrease iron (Fe) in ground water, using cascade aerator with variation of number of steps.

Method: The research method is quasi experiment with pre and post test design. Samples were taken by the method of grab sampling (sampling moment) on one of the houses in the housing; the examination of iron content was done in the laboratory.

Results and Discussions: The result of the research showed that the decrease of iron cascade aerator level can decrease the iron content on the number of stairs 5 fruits by 0,712 mg / l (69,04%), the number of stairs 10 fruit is 0,614 mg / l (73,30%) and the number of stairs 15 fruit of 0.378 mg / l (83.56%).

Conclusions: The three variations of the number of steps are effective to reduce Iron (Fe) in clean water.

Keywords: cascade aerator, variation of number of steps, iron quality in water

A MODEL OF EDUCATIONAL INFORMATION COMMUNICATION FOR FAMILIES ON THE REPRODUCTIVE HEALTH OF PREGNANT MOTHERS IN PALU, INDONESIA; A SYSTEMATIC REVIEW

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Introduction: There is evidence that home visits to pregnant women can improve outcomes for both mothers and their babies in developing countries. A 2010 systematic review of trials of home visits concluded they could reduce neonatal mortality, but did not consider impact on maternal outcomes. A recent systematic review of trials of community-based interventions in developing countries, many including home visits, showed a reduction in maternal morbidity and possibly in maternal mortality. The purpose of this systematic review is to develop a model of educational information communication for families on the reproductive health of pregnant mothers.

Methods: This research used a systematic literature review. Various references were collected from online database including reports, journals, and books. The journals were mostly from the scholarly journals. The articles were screened according to the research objectives. The keywords used are educational, families, and pregnant.

Results and Discussions: This study showed that the use of a model of educational information communication for families is very effective on the reproductive health of pregnant mothers. Encouraging women to attend underfunded and low-quality services will not improve the already strained quality of care and may even compromise it further. This suggests a need to look upstream for ways to improve maternal health by influencing the conditions that produce risk factors for poor maternal outcomes.

Conclusions: This paper concludes that a model of educational information communication for families is very effective on the reproductive health of pregnant mothers. Further recommendation will be provided.

Keywords: educational, families, pregnant

THEME 3: Sustainable and Healthy Urban Living

**ANALYSIS OF THE VENTILATION AND BEHAVIOR AND HEALTHY LIVING
(PHBS) RISK LEVELS FOR THE INCIDENCE OF ARI : STUDY IN THE
STUDENTS AT THE AMANATUL UMMAH ISLAMIC BOARDING SCHOOL
SURABAYA**

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Introduction: The incidence of Acute Respiratory Infections (ARI) is often experienced by students in islamic boarding schools. The high incidence of ARI in boarding schools is influenced by many factors, such as ventilation and PHBS. Ventilation that does not meet health requirements and poor implementation of PHBS can increase the risk of ARI. This study aims to analyze the risk level of ventilation and PHBS on the incidence of ARI in students at the Amanatul Ummah Surabaya Islamic Boarding School.

Method: This research uses analytic survey research with a cross-sectional approach. The population was 853 students. Sampling using Proportionate Stratified Random Sampling and taking a sample of 207 students. Samples were taken through drawing the number of absences. The data were obtained through interviews with PHBS questionnaires, field observations of ventilation and observation of respondent's medical records to obtain information on the history of the ARI. The data analysis by chi-square test ($\alpha=0.05$).

Results and Discussions: The results showed that respondents with room ventilation that did not meet the requirements tended to experience ARI 11.125 times greater than respondents with room ventilation that met the requirements, and respondents with poor PHBS tended to experience ARI 7.149 times greater than respondents with good PHBS. The more ventilation does not meet the requirements and the poorer implementation of PHBS, respondents tend to experience ARI.

Conclusions: The islamic boarding school is expected to be able to evaluate the construction of boarding schools, especially related to the ventilation to fit the applicable health requirements and provide adequate PHBS facilities.

Keywords: acute respiratory infection (ARI), clean and healthy behavior (PHBS), ventilation

An Analysis of Patient Satisfaction using the Gap of Expectation and Reality Approach in the Hijr Ismail Room of Ismail Islamic Hospital Surabaya A. Yani

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Introduction: Public Health facilities are demanded to provide quality services simultaneously to patients in order to make patients feel satisfied. Patient's satisfaction at the Islamic Hospital in Surabaya A. Yani is rarely to reach its standard because there was a gap between expectations and the reality that received by the patient. This study aims to analyze the gaps which involves five dimensions of service quality in the Hijr Ismail Room Unit of Surabaya Islamic Hospital, A. Yani.

Method: The method of this research used an analytic research called cross sectional. The population of this research is the patient's family in the Hijr Room Ismail. This research collect the samples of the data from 113 respondents (14 respondents in Class 1, 63 respondents in Class 2, and 36 respondents in Class 3) using proportionate stratified random sampling technique. The data were collected using a questionnaire which consist of questions about the expectations and reality that received by the patients. The data were analyzed by comparing the values between expectations and reality received by patients based on the five dimensions of service quality (reliability, responsiveness, tangibles, empathy, and assurance).

Results and Discussions: The results shows that there are gaps in the five dimensions of service quality and the largest gap lies in service speed indicators.

Conclusions: The recommendations, which could be given, are evaluation of service rapidity; increase responsiveness in providing information needed by patients; always maintaining the hygiene of the room, the comfort of the room; and optimize the function of the suggestion box.

Keywords: satisfaction, service quality, customer window, gap

SOCIAL MEDIA AND AWARENESS OF SMOKING HAZARD AMONG HIGH SCHOOL STUDENT IN MAKASSAR INDONESIA

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Introduction: Social media is becoming a new platform to promote tobacco consumption, beside that social media also to make the platform as a battlefield between the pro and anti-tobacco. Meanwhile information about that is still limited. This study aims to determine the influence of social media on adolescent awareness of the hazard of smoking for one's health.

Method: Type of research was conduct in cross sectional study approach. The population were all students of class X and XI from 10 schools as many as 5368 students. The sampling technique in this research used Systematic Random Sampling with 359 students. The data analysis was using chi-square test and multivariate with path analysis.

Results and Discussions: The result of study shows there is a correlation of the accessed content through social media ($p = 0.001$), and no correlation of the amount of accessing social media ($p = 0.785$), duration of accessing social media ($p = 0.781$) number of active social media platforms used ($p = 0.502$) with adolescent awareness of the hazard of smoking. Based on the results of Path Analysis; content variable is significant ($p = 0.013$) to awareness with coefficient value 0.101.

Conclusions: The role of government is required to reinforce content on social media particularly in smoking hazard.

Keywords: awareness, smoking, social media

INDIGENOUS FOODS ARE UNDERUTILIZED IN FOOD PATTERN OF CHILDREN AGE 12-23 MONTHS IN FOOD INSECURE PRONE AREA OF BANGKALAN, INDONESIA

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Introduction: Indigenous foods are usually more economically accessible compared to conventional foods and potentially help fulfill nutritional needs of marginal population. This study aimed to describe knowledge and preference of caregivers on indigenous foods, and identify whether these foods are present in the food pattern of children age 12-23 months.

Method: Data is taken from a dietary survey which intended to develop food based recommendation for children age 12-23 months in food insecure prone area of Bangkalan District, Indonesia, involving 60 children and the mothers. We made list of potential indigenous foods from formative study, and interviewed the mothers on their knowledge and preference. Child consumption pattern was identified from non-consecutive days 2x24 hours food recall, 1-day weighed food record and 4 days food tally.

Results and Discussions: Various indigenous foods from different food groups, including roots and tubers, legumes, vegetables, fruits, and animal protein source were available in the study area. However, only a few of them which the availability were considered “many” by more than 50% respondents, i.e. mung bean, long bean, lead tree, water convolvulus, spinach, moringa, eggplants, banana, papaya, jackfruit, Jamaican cherry (*kersen*), and mullet fish. From 1-5 scale of preference, most of indigenous foods were rated 3 (moderately preferred), and some were never given to the child. Only a few indigenous foods were identified in the children’s food pattern, i.e. spinach, moringa leaves, banana, mango, local cucumber, guava, and long bean. Only 36.7% children had minimum dietary diversity score (≥ 4 food groups).

Conclusions: Indigenous foods were underutilized in food pattern of children age 12-23 months. As the children dietary diversity was still low, indigenous foods need to be promoted by showing the nutritional potentials and through food based recommendation.

Keywords: indigenous foods, underutilized, food security, young children

THE RELATIONSHIP BETWEEN THE INCIDENCE OF STUNTING AND THE FREQUENCY AND DURATION OF DIARRHEA AND ACUTE RESPIRATORY INFECTION IN TODDLER IN THE WORKING AREA OF KENJERAN HEALTH CENTER IN SURABAYA

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Introduction: Infectious diseases (diarrhea and ARI) that repeatedly cause children's health to increase in the pattern of children's appetite which can lead to less nutritional status of children. This study was to analyze the relationship between the incidence of stunting and the frequency and duration of diarrhea and ARI in children under five in the Kenjeran Health Center Surabaya Working Area.

Method: Analytical research design with cross sectional design in 4 villages between Kenjeran Village, Bulak Village, Kedung Cowek Village, and Sukolilo Village. Data retrieval is done by questionnaire sheet and observation using microtoise, sample technique uses Sampling Probability by using Stratified Random Sampling as many as 152 children.

Results and Discussions: The results of research on children under five who experience the incidence of stunting with the frequency and duration of diarrheal disease indicate children who experience stunting and longer frequency. The Rho Spearman Test showed differences in the incidence of stunting with the frequency of diarrhea $p = 0.005$ ($p < \alpha = 0.05$), duration of diarrhea $p = 0.003$ ($p < \alpha = 0.05$), ARI frequency $p = 0.001$ ($p < \alpha = 0.05$), the duration of ARI $p = 0.001$ ($p < \alpha = 0.05$).

Conclusions: The implication of this study is that stunting is related to the frequency and duration of diarrheal diseases and ARI, so that posyandu activities can add counseling about children's health that requires the treatment of diarrhea and ARI in children under five in the Kenjeran Health Center Surabaya.

Keywords: stunting incidence, frequency, duration, diarrhea, ARI (acute respiratory infection)

THE INFLUENCE OF PASSIVE SMOKER HAVE HIGHER RISK FOR SMOKING ATTRIBUTABLE DISEASES

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Introduction: The diseases caused by cigarette are growing in Indonesia, along with the increasing number of smokers. Many people are not aware of the dangers of passive smoking for smoking attributable disease. The purpose of this research is to analyze the influence of passive smoker to smoking attributable disease at Blitar district.

Methods: This study is descriptive observational research with Case-Control design. The research was carried out by one of the hospitals in blitar district and started in August – December 2017. There are 3 most diseases that categorized Smoking attributable disease. There are Stroke, Coronary Heart Disease and Chronic Obstructive Pulmonary Disease (COPD). Sampling was conducted purposive random sampling. The analysis is done by calculating the Odds Ratio.

Results and Discussions: The results of this study were 322 respondents consisting of 200 (62.1%) cases and 122 (37.9%) controls. The most of smoking attributable disease were Stroke of 103 respondents (31.9%). The results showed that passive smokers were 8 times higher to develop Smoking attributable disease ($p=0,00$; OR 8,32; 95% CI =4.85<OR<14.32). Active smokers were three times higher to develop Smoking attributable disease ($p 0,00$; OR = 3,43; 95% CI=2.10<OR <5.58), smoking status is 4 times higher to develop Smoking attributable disease ($p=0,00$; OR=4.64; 95% CI= 2.58<OR<8.32).

Conclusions: The greatest influence is passive smoking on the incidence of Smoking attributable disease. The importance to create regulation about Smoke Free Area to reduce the number of passive smokers both at home and at work.

Keywords: smoking attributable diasease, passive smokers, active smokers, risk factors

THE CORRELATION OF DEPRESSION ON THE DISABILITY OF STROKE PATIENTS

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Introduction: Stroke is the number one disease cause of disability in Indonesia. One of the conditions that arise in patients who have stroke is depression post-stroke. Post-stroke depression can worsened the condition of stroke patients and it can slow down the recovery process. The study aims to analyze the relationship of depression levels with disability levels in post-stroke patients at RSI Jemursari.

Method: the design of the research used is correlational analytic research with a cross sectional approach. The population of this study was the entire post-stroke patient in the Jemursari RSI nerve poly by 139 patients. The large sample is 104 respondents and taken using simple random sampling techniques. This research instrument is a questionnaire and statistical test used is the correlation test of Product Moment Pearson.

Results and Discussions: the results showed that from 104 respondents obtained mostly (62.5%). The respondents suffered milddepressive and largely (58.7%) Experiencing mild disabilities. Analysis results using the Pearson Product Moment Test obtained P value = 0.000. This indicates a relationship between the level of depression and the degree of disability in post-stroke patients at RSI Jemursari.

Conclusions: the level of post-stroke depression relates significantly to the level of disability that is held by post-stroke patients at RSI Jemursari Surabaya. Families are expected to provide safe, support and comfortable environment so that the level of depression experienced by patients can be decreased and patients are motivated to carry out the rehabilitation process.

Keywords: depression, disability, post-Stroke patients

FAMILY FOOD CONSUMPTION PATTERN WITH FETAL DEVELOPMENT: STUDY IN THE SECOND AND THIRD TRIMESTER OF PREGNANT

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Introduction: pregnancy is a period that determines the quality of human resources in the future. During the pregnancies, a woman need quality nutritional care to support fetal development. The nutritional status of pregnant women plays an important role in the condition of pregnancy and the baby, so that malnutrition at the beginning and during pregnancy will affect the growth and development of the fetus. This study is conduct to analyse interrelationship between family food consumption with fetal development.

Method: this study is conducted using correlational restrospective design involving the pregnant women of the second and third trimester taken by purposive sampling. Structured interview by using modified food frequent questionnaire is used to collect the data about family food consumption pattern. While midline is used to measure the uterine fundus to ases fetal development.

Results and Discussions: the result study show that family food consumption pattern is correlate with fetal development with p value of 0.010 and OR 3.000. Mean that pregnant women with inadequate nutrition have a 3.000 times higher chance of uterine fundus that mismatches the gestasional age compared with woman who consume adequate nutrition.

Conclusions: education and motivation about nutrition during pregnancy is required for woman and her family. It is not only about food quantity but also food quality should be guaranteed as well.

Keywords: food, pregnancy, development

SMOKING BEHAVIOR IN WOMEN IN PALU CITY

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Introduction: Based on the number there are 1 billion active smokers throughout the world and 20% of them are women. Even the data shows that the number of female smokers increases every year. The Basic Health Research results show that the number of female smokers aged over 15 years increased in the 2007-2013 range, namely in 2007 the number of female smokers was 5.2% and in 2013 it increased to 6.7%. In 2018 the number of female smokers in Indonesia was 4.8%, and in Palu City there were 583 female smokers. women who smoke are 25% more at risk than male smokers. The purpose of this study was to determine smoking behavior in women in Palu City.

Method: This research is quantitative with a cross sectional study design. The sampling technique was accidental sampling with a total of 80 female smokers. Analysis using the chi-square test with a confidence level of 95%.

Results and Discussions: The results showed that knowledge ($p= 0.001$), peers ($p= 0.003$), early age of smoking ($p= 0.010$), and work ($p= 0.013$), were factors associated with smoking behavior in women in Palu City.

Conclusions: The conclusions of this study is that factors related to smoking behavior in women in Palu city are knowledge, peers, early age of smoking and employment. It is recommended that women who are still active in smoking are expected to find information about the effects of smoking especially for women and health workers to further increase the frequency of health education about the dangers of smoking, and maximize health promotion media about the dangers of smoking to the public.

Keywords: women, smoking behavior

RISK FACTORS AND COMPLICATIONS OF CAUSES MATERNAL MORTALITY IN MOJOKERTO

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Introduction: Maternal mortality can prevent early before they become pregnant. Women of childbearing age are at high risk from the *ummet need* group. The purpose was to analyze high risk factors and complications which cause maternal mortality.

Method: the type of the research was analytic with case control approach. The population was pregnant mother, childbirth and postpartum mothers who died in 2017-2018 as many as 48 people in Mojokerto. Primary data was obtained from interviews with families of dead postpartum mothers. Secondary data was obtained from maternal mortality records, cohort data and delivery records. The analytical methods used included univariate analysis, bivariate analysis using cadrate test, and multivariate analysis through linear logistic regression.

Results and Discussions: The results of the study showed that 14 postpartum mothers suffered from anemia complication of pregnancy 14 (14.3%), among labor complications was late referral as many as 13 people (13.3%). 71 mothers worked (72.4%) and 10.2% of whom experienced pregnancy complications. Labor complications was 12.2% and postpartum complications was 28.6%. The result of logistic regression analysis shows that the most affecting risk factors which were nutritional status, anemia status, disease history, age, ANC examination, method of delivery, late referral and occupational status as well as complications on postpartum mothers were very significant for maternal mortality with a chi square value of 109,431 (p value equal to 0,000) with Nagelkerke R square of 0.897.

Keywords: Pregnant Women, High Risk, Mortality

OWNERSHIP OF MOTHER AND CHILDREN'S HEALTH BOOK AND COMPLETE BASIC IMMUNIZATION STATUS IN SLUMS AND POOR POPULATION

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Introduction: Health data shows the percentage of complete immunization in urban areas is higher than rural areas. There is a tendency for the lower economic status, the lower the coverage of each type of immunization, including the people who live in slums and poor in urban areas. The purpose of the study was to analyze the relationship between ownership of Maternal and Child Health (MCH) books with complete basic immunization (CBI) coverage in slums and poor areas in selected cities in East Java Province.

Method: Rapid survey of selected sub-districts in Malang, Pasuruan, Sidoarjo and Surabaya. The selection of sub-districts purposively based on data on the existence of slums and poor groups from the Public Health Center. Informants were mothers with a sample of 325 infants aged 12 to 23 months. Instruments using Rapid Card Check. Data analysis using chi-square.

Results and Discussions: The lowest coverage of CBI for slum and poor residents is Pasuruan, which is 55.4%. The results of statistical analysis showed that there was a significant relationship between ownership of MCH books and the complete coverage of basic immunization in Malang ($p = 0.000$; $PR = 3.682$); Pasuruan ($p = 0.002$; $PR = 1.854$); Sidoarjo ($p = 0.000$; $PR = 4.042$); Surabaya ($p = 0.000$; $PR = 2.425$).

Conclusions: Need support in increasing access to immunization programs in slums and poor population.

Keywords: MCH book, basic immunization coverage, slums, poor, Indonesia

PHYSICAL FACTOR WITH SICK BUILDING SYNDROME SUBJECTIVE COMPLAINT (CASE STUDY RRI BANJARMASIN EMPLOYEE)

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Introduction: One of disturbance health phenomenalism that linked to air quality is Sick Building Syndrome (SBS). SBS is symptom collections whom felt by employee in a work room that linked to duration of work and air quality.

Method: This research used explanatory research by cross sectional approachment. Total population used to sample collection that count of 44 respondents. Research variable for unimpeded variables were temperature, humidity, illumination whereas impeded variable was Sick Building Syndrome subjective complaint. Technical of data collection were measuring, observation and quiz. Data analyze method used univariat analyze with descriptive, and bivariat analyze with spearman's rho correlation.

Results and Discussions: Outcome of research showed that there was no relation between humidity with p value $0.818 > 0.05$, illumination with p value $0.529 > 0.05$ to Sick Building Syndrome (SBS) subjective complaint in office work room of RRI Banjarmasin. Quiz research showed that the total of respondents whom felt the SBS are 14 respondents (31.8%).

Conclusions: Advice that can be given are take a rest for a while during work a day to do stretching and refreshing to get a better focus and pulled of from stress and SBS symptoms.

Keywords: physical factor, sick building syndrome, RRI Banjarmasin

**DEVELOPMENT NEW SOCIO-ECOLOGICAL CONCEPT OF HEALTH
BEHAVIOUR “INA DJAYAKU ABADI” FOR ACCELERATING DECLINE OF
MATERNAL MORTALITY RATE IN DISTRICT OF KUPANG, NUSA TENGGARA
TIMUR (NTT) PROVINCE, INDONESIA**

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Introduction: Maternal Mortality Rate (MMR) in District of Kupang Nusa Tenggara Timur (NTT) Province, Indonesia remains high and needs serious efforts to accelerate the decline of MMR to the level recommended by United Nation Sustainable Developing Goal 3 (UN-SDG:3) in 2030. Therefore, the aim of this study was to accelerate decline of MMR in the District of Kupang, by developing a new concept based on “Socio-Ecological Model of Health Behavior”. It was constructed based on Health Belief Model, Theory of Reasoned Action, Planned Health Behavior and Social Cognitive Theory as well.

Method: The first step of this study was designed as cross sectional covered observational analysis. The sample size was 126 post partum mothers up to 3 months after the termination and was analyzed with LISREL statistical test. The second step, the model was examined by using longitudinal study quasi experimental design, randomized pre-test and post test design for 12 months to 26 pure first visit (V1) of pregnant mothers throughout 42 days of post partum. Health education was conducted for the pregnant mothers, 36 health center staff, and 32 community members.

Results and Discussions: The result of the first step was intrapersonal, interpersonal, institutional and communal variables significantly influenced the reduction of MMR in the District of Kupang (LISREL statistical test, t value =7.11; 4,48; -3.15 ; -2.10 respectively), the model was fit (Chi square statistical test= 3.95; goodness of fit= 0.99; 2 degree of freedom p = 0.138). The result in the second step demonstrated that significant increment of knowledge of the pregnant women (paired t test, $p < 0,01$) ; the health center staff and the community (Wilcoxon’s statistical test, all $p < 0.01$).

Conclusions: It is concluded that the new concept of Socio-Ecological Model of Health Behavior “Ina Djayaku Abadi” could be implemented comprehensively at intrapersonal, interpersonal, institutional and communal levels. It is suggested the model can be implemented in the similar cultural in developing regions.

Keywords: new concept, socio-ecological model of health behavior “Ina Djayaku Abadi”, accelerating decline of MMR, district of Kupang NTT Province

DESCRIPTION OF QUALITY OF LIFE (REVIEWED FROM RELATIONSHIP ASPECT SOCIAL) POST HISTERECTOMY IN COMMUNITY HEALTH CENTER OF SURABAYA

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Introduction: Post hysterectomy causes sexual dysfunction and even the loss of the ability to give birth to a child, the community considers that a woman who does not have a uterus will experience a decline in self-esteem from the family and the surrounding community, especially her own partner. The purpose of the study described the quality of life in terms of aspects of social relations in women post hysterectomy in the Surabaya health center area.

Method: Descriptive research design, population of 30 women post hysterectomy 6-24 months ago in the Wonokromo Health Center area, Jagir Health Center and Kebonsari Health Center. 30 samples with total sampling technique. Research variables of quality of life are viewed from aspects of sexual relations. The research instruments for the Indonesian version of the WHOQL-BREF (World Health Organization Quality of life) questionnaire were 3 questions. Data were analyzed using frequency distribution tables.

Results and Discussions: The results of the study of quality of life in terms of aspects of social relations, of the 30 respondents most (60%) had quality of life in terms of the aspect of moderate social relations. In the personal relationship dimension, it shows that all (83%) give an ordinary answer, the dimension of social support shows that most (66%) give an ordinary answer, and the dimension of sexual activity shows half (50%) gives an unsatisfied answer. The quality of life in terms of the social relations aspect of women post hysterectomy in the Surabaya health center area is moderate.

Conclusion: The role of nurses can provide nursing care within the scope of social support education for women and families in undergoing the process of grieving due to adaptive loss so as to avoid pathological stress and improve quality of life.

Keywords: hysterectomy, quality of life, aspects of social relations

IMPACT OF SOCIAL DETERMINANTS AT TYPE 2 DIABETES MELLITUS IN MAKASSAR CITY INDONESIA

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Introduction: The research aimed at investigating the relationship between the social determinant and the life quality of type 2 diabetes mellitus patients in the Regional General, Labuang Baji, Makassar Makassar City.

Method: The research used the cross-sectional study desain. Samples were taken by the probability sampling and simple random sampling techniques with many as sample of 136 people.

Results and Discussions: The search result indicates that the respondents with with the good life quality are as many as 97 people (71.3%) the respondents with the poor life quality are 39 people (28.7%). The bivariate analysis (chi-square) result indicates that the factors which significantly have the relationship with the life quality of type 2 diabetes mellitus patients with p-value <0.05 are : the education level (p = 0,000), knowledge level (p = 0,000) family support (p = 0,000), attitude / diet (p = 0,000), and health facilities support (p = 0,000). While, the factor which does not have any significant relationship is the occupation (p = 0.107). The logistic regression analysis result indicates that the factors having the significant relationship with life quality of type 2 diabetes mellitus patients are : the education, attitude / diet and family support.

Keywords: type 2 diabetes mellitus, life quality, social determinant.

CLIMATE CHANGE AND HEALTH IMPACTS IN THE DEVELOPING MEKONG DELTA REGION

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Introduction: The lower Mekong Delta Region (MDR), a developing and tropical area, is considered one of the areas in South-East Asia most vulnerable to extreme hydro-meteorological events associated with climate change. Our study examined the health effects of high ambient temperatures, unusual and intensive flooding events, and sea level rises in the Mekong Delta Region (MDR).

Method: We applied Generalized Linear and Distributed Lag Models to examine hospitalizations for extreme weather events (temperatures, flooding) for each of the 13 provinces in the MDR. A random-effects meta-analysis was used to estimate the pooled risk for all causes, and for infectious, cardiovascular, and respiratory diseases sorted by sex and age groups. Random-effects meta-regression was used to evaluate the effect of socio-economic factors on the temperature-hospitalization association. We also conducted an ecological case-control study to examine the effects of salinity on hypertension among MDR's residents.

Results and Discussions: For 1 °C increase in average temperature, the risk of hospital admissions increased by 1.3% (95% CI, 0.9–1.8) for all causes, 2.2% (95% CI, 1.4–3.1) for infectious diseases, and 1.1% (95% CI, 0.5–1.7) for respiratory diseases. However, the result was inconsistent for cardiovascular diseases. Meta-regression showed population density, poverty rate, and illiteracy rate increased the risk of hospitalization due to high temperature, while higher household income, houses using safe water, and houses using hygienic toilets reduced this risk. Positive association between both extreme and flood pulse and elevated risk of hospitalization in the MDR (all-causes, infection, respiratory and cardiovascular admissions). The temporal patterns of the flood-hospitalization relationship vary by causes of hospital admissions. The flood-hospitalization relationship among children is modified by the ambient temperature. The multi-level logistic model combining both individual and ecological factors showed a 9% increase in risk (95% CI: 3–14%) of hypertension admission among individuals in exposed areas compared to those in non-exposed areas.

Conclusions: The findings of research projects have important for better understanding the future impacts of climate change on residents of the MDR. Adaptation programs that consider the risk and protective factors should be developed to protective residents from extreme weather events induced by climate change.

Keywords: climate change, health impacts, flood-hospitalization

APPLICATION OF THE HEALTH BELIEF MODEL ON THE INTENTION TO STOP SMOKING BEHAVIOR AMONG YOUNG ADULT WOMEN

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Introduction: Smoking behavior among young adult women not only has consequences for health problems, but also related to ethical norms especially femininity and gender. Through Riset Kesehatan Dasar 2018, noted that the proportion of Indonesian women aged ≥ 15 years who smoke tends to fluctuate, 5.2% in 2007, 4.1% in 2010, 6.7% in 2013, 2.5% in 2016, then 4,8% in 2018. In the city of Surabaya the number of smokers aged ≥ 15 years reached 27% or around 776,169 smokers from a total population of 2,874,699 people, and among them were young adult women. Woman who behaves in a sense of smoking (more or less) has an intention to quit smoking. The level of the intention related to the perceived factors according to the Health Belief Model.

Method: This is a cross sectional study with the aim to analyze the correlation between the factors of young adult women intention to stop smoking with perceived factors in the construction of the Health Belief Model. The respondents were 58 young adult women who lived in Surabaya city who behaved smoking and aged between 15-40 years, obtained through purposive sampling technique in 2018.

Results and Discussions: The intention to stop smoking in young adult women has a significant correlation with perceived susceptibility ($p=0.001$), perceived severity ($p=0.028$), perceived benefits ($p=0.030$), perceived barriers ($p=0.024$), and perceived self-efficacy ($p=0.020$).

Conclusions: The intention to stop smoking behavior of young adult women has a significant correlation with the perceived factors of the construct of the Health Belief Model.

Keywords: health belief model, intention, quit smoking, women smokers

PREGNANCY DISORDERS IN FEMALE WORKERS AT THE INDUSTRIAL AREA OF SIDOARJO

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Introduction: The number of female workers In Indonesia had increased. Female workers were very vulnerable to various hazards in the workplace environment. Female workers in menstrual period, during pregnant were very vulnerable to health problems. The aim of this study was to analyze the situation and various factors associated with pregnancy disorders in female workers.

Method: The study was cross sectional. The number of sample was 307 female workers selected by simple random sampling. The independent variables include noise, dust, pungent odors, irritants, vibrations, overload loads, repetitive work, and not comfortable position. The dependent variable was pregnancy disorder. Descriptive analysis was conducted to describe the conditions of female workers during the pregnancy to childbirth process.

Results and Discussions: female workers who experienced pregnancy disorders were 45%, had miscarriages was 16%, most of the prenatal care processes was assisted by doctors or midwives, but there were still 2.6% on traditional birth attendants, 2.9% giving birth at traditional birth attendants. Risk factors that associated with pregnancy disorders are vibration ($p = 0.004$), irritant ($p = 0.002$) and repetitive work ($p = 0.009$).

Conclusions: female workers had risk of pregnancy disorders due to the work environment including vibration, irritant substances, and repetitive work methods. Suggestion: companies need to provide maternal and child health protection and control any risk associated with female workers.

Keywords: female workers, pregnancy disorders, MCH, Hazard

SURVEILLANCE WASH IN HEALTH CARE FACILITIES TO SUPPORT POST-DISASTER MANAGEMENT IN CENTRAL SULAWESI

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Introduction: 7.4 magnitude earthquake and its aftershocks, tsunami, and subsequent liquefaction and landslides have severely affected Donggala, Sigi and Parigi Mountong regencies and Palu municipality of Central Sulawesi. There are currently 222,986 displaced people and 68,451 houses damaged reported. 20 healthcare facilities are affected, Improper waste management, limited water, sanitation and untested water quality for water sources at IDP sites increase risks to health as increase in diarrheal cases is observed started from around 10 days after the earthquake, acute respiratory infection have been observed. This research aimed to be highlight to support WASH management in most affected area and IDPs, including medical and non-medical waste management in healthcare facilities that are badly affected.

Method: Observation method was applied on 22 care facilities include hospital and other facilities. These are located in central sulawesi where damaged by natural disaster. The result of this research is divided into four terms, they were: Clean water, toilet, trush, and hand washing facilities.

Results and Discussions: The result of this research showed that there are 81,82% care facilities that is fullfil the target of clean water. However, there are only 47% out off 100% toilet that is qualify to be used by people. The trush facilities founded are only 36.36% in care healt centers. In the similar vein this research also found that there are only 40.91% health care facilities that is occupy the hand washing facilities standard.

Conclusions: So that, it can be concluded that, WASH in health care facilities founded in this research cannot handled people needs.

Keywords: WASH, health care, post-disaster, central Sulawesi

THE EFFECT OF PLUMBUM, ZINC AND ZINC RATIO ON PLUMBUM IN CHILDREN'S TEMPERAMENT

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Introduction: Plumbum is a heavy metal that is neurotoxic in children. Plumbum exposure in slum and densely populated environments adversely affects physical growth, nervous system development, memory disorders, and learning disorders, cognitive deficits, psychological disorders and negative temperament of children that persist until adulthood. Zinc is an important trace element in the body. Increased free radical production and oxidative stress can interfere with homeostasis trace elements. Trace element zinc plays an important role in the mechanism of oxidants and antioxidants in microorganisms.

Method: This study is an analytical study with a cross-sectional design with sampling using the random sampling method in grade 1 to 6 grade Bina Karya Surabaya elementary school. Measuring plumbum and zinc levels using hair media was measured by the Atomic Absorption Spectrophotometry (AAS) and temperament measurements using the Indonesia's Children's Temperament Questionnaire.

Results and Discussions: Pb, zinc and Pb ratio to Zink affect the temperament of children with p-value Pb 0.048, Zinc 0,000 and Pb ratio per Zinc 0.078 with r-value Pb 0.08, Zinc 0.325 and Pb ratio per Zinc 0.208.

Conclusions: Pb, Zinc, the ratio of zinc to Plumbum is significant to the child's temperament

Keywords: child temperament, plumbum, zinc, zinc/plumbum ratio.

FRIENDLY ENVIRONMENT WASTE MANAGEMENT BASED ON COMMUNITY EMPOWERMENT AS THE BASIS OF THE HEALTH NATIONAL RESILIENCE

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Introduction: Among other countries, Indonesia ranked 11th on the most polluted country. It is about 50% of diseases caused by pollution. This unfriendly environment of waste management will undermine the health national resilience. Aim of this research is to identify on how Indonesian Government empower community in waste management. This community empowerment and clean environment will be a solid basic for health national resilience.

Method: The main data sources used in this study were taken from 39 journals and documents relating to waste management issues and direct observation of the Waste Bank implementation.

Results and Discussions: (1) People still manage unfriendly environment their plastic waste and creating pollution. (2) Government has carried out various regulations to manage waste, but the implementation has been ineffective. (3) The success of waste management depends also on active participation of community, such as implementation of Waste Bank in several areas. Unfortunately, the number of waste bank is only 6%. The Waste Bank should be carried out sustainably. One requirement for sustainable waste management is strengthen the intensive role of the local government starting from implementing the 3P principles (planet, people, and profit), good governance and monitoring, providing infrastructure, innovative and utilize local wisdom.

Conclusions: The future research should be directed to the relationship between the waste bank development and local wisdom. It is because of the high culture diversity in Indonesia.

Key words: Keywords: Health, national resilience, waste bank

PERCEPTION ON HISTORY OF HUSBAND AND WIFE RELATIONSHIP AND HIV RISK BEHAVIOR IN THE HOUSEHOLD FROM HOUSEWIVES INFECTED WITH HIV IN SURABAYA

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Introduction: HIV is increasing among housewives. The main transmission factor is because of the partner. The existing programs so far, PMTCT (Prevention Mother to Child Transmission) and PIT (Provider Initiated Test), are when there is a risk of being exposed to HIV. Prevention handling starting from upstream has not been maximized because the population is not specific. The purpose of this study is to find overview of history of relationships and risk behaviors of HIV/AIDS in households from HIV-infected housewives perspectives, so that we can find intervention programs that are specific to families in Indonesia.

Method: This is a descriptive research using cross sectional method. There were 58 respondents involved in answering validated retrospective questionnaire. We use accidental sampling to find respondent that fit in our inclusion and exclusion criteria from January to May 2019.

Results and Discussions: From this study it was found that out of 58 respondents, 44 (76%) did not experience domestic violence and 14 (24%) experienced it. From this study it was also found that more than 50% of the housewives did not believe that their husband had an affair with another woman or had a mistress.

Conclusions: HIV/AIDS can be experienced by any family that either has good relations or experiences violence. It is recommended that outreach be carried out at each reproductive period (adolescents, couples of childbearing age) and must involve men, enter material about STIs in the program for reproductive age and not just about contraception.

Keywords: perception, husband and wife relationship, housewife, risk behavior, HIV

COORDINATION OF MONITORING GROWTH AND DEVELOPMENT OF TODDLERS IN THE BALOI PERMAI PUBLIC HEALTH CENTER WORKING AREA, BATAM CITY IN 2019

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Introduction: Toddlers are the age group that most often suffer from malnutrition and less nutrition. Based on data from the Batam City Health Office in 2017 regarding the scope of monitoring the growth and development of infants at 49.6% of the target set by the Ministry of Health of the Republic of Indonesia which is 80%. Baloi Permai Public health center is the lowest public health center with 35.8% achievement coverage. This study aims to analyze the coordination of monitoring growth and development of toddlers in the working area of Baloi Permai Public health center.

Method: The study design used qualitative methods. The number of informants in this study were 8 people. Data analysis using content analysis methods.

Results and Discussions: The results of this study indicate that coordination of growth and development monitoring for toddlers is pooled interdependence, lack of SOPs and standardization of skills. Indirect supervision in the form of recording and reporting has not been implemented.

Conclusions: Coordination in monitoring the growth and development of toddlers in the working area of Baloi Permai Public health center is not optimal so it needs cooperation with related parties and the active role of all parties to reach the scope of growth and development of toddlers.

Keywords: coordination, growth, development, malnutrition, toddlers

IMPLEMENTING RESPONSIVE CULTURE IN PUBLIC HEALTH CENTERS CILINCING SUB-DISTRICT NORTH JAKARTA: CASE OF SALTED FISH PRESERVATION

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Introduction: The purpose of this study were: (1) to confirm indicators of determinants of variable responsive culture, management awareness and organizational commitment; (2) to measure responsive culture, management awareness, organizational commitment, and identification of formalin in salted fish before and after application of responsive culture; (4) to analyse effect of management awareness and organizational commitment on responsive culture; and (5) to determine the best model of influences pathway.

Method: The design used is the responsive culture module, observational and cross sectional to take organizational culture snapshots and establish causal relationships between variables through hypothesis test. Descriptive analysis was used to determine distribution of respondents to: (a) responsive culture; (b) management awareness; (c) organizational commitment; and (d) identification of formalin salted fish. SEM (Structural Equating Modeling) test was used to: (1) confirm the responsive culture indicators; (2) test the effect of management awareness and organizational commitment on responsive culture and the presence of formaline in preserved salted fish; and (3) determine best model of influence pathways.

Results and Discussions: The results show: (1) management awareness has a direct effect on organizational commitment; (2) organizational commitment to responsive culture and responsive culture to the presence of formaline in preserved salted fish. It was proven responsive culture plays an important role in overcoming the problems of Puskesmas performance.

Conclusions: Reading and implementing the responsive culture module in the Cilincing Public Health Centers was adequate in terms of management awareness; enough in terms of organizational commitment and sufficient in terms of responsive culture formation.

Keywords: responsive culture, awareness management, organizational commitment, salted fish preservation

EFFECT OF AGE AND WEIGHT ON PHYSICAL ACTIVITY

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Introduction: The process of aging and weight gain is often associated with a decrease in physical activity. Both can lead to lifestyle changes such as diet, exercise and physical activities. This can increase the risk of metabolic disorders in geriatric and obese patients. Physical activity is one important component in preventing the onset of various diseases due to metabolic disorders. Explain and analyze the effect of age and weight factor on physical activity.

Method: This research is observational by using case control method. Sample collection by purposive sampling technique. The study population is adult and geriatric society in Surabaya. The subjects of the study were divided into 4 groups: geriatrics (obesity and non obesity) and adults (obesity and non obesity) with each group of 77 people. The study was conducted by giving a questionnaire about physical activities that are routinely performed daily.

Results and Discussions: The result showed that there was no difference of physical activity in obese and non obese geriatric group ($p = 0.858$), while in obesity and non obese adult group were difference ($p = 0.047$). But the age group, both showed differences between geriatrics and adults with obesity and non obesity ($p = 0.000$). The addition of age will affect physical activity. But obese only affect physical activity in adult

Keywords: age, weight, physical activity

ANALYSIS OF DETERMINANT FACTORS OF HYPERTENSION OCCURRENCE AMONG TEENAGERS AND YOUNG ADULTS IN SURABAYA

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Introduction: Hypertension data based on age groups in Surabaya showed an increase in hypertension trends in the young age group. It is known that hypertension risk factors are gender, behavior or lifestyle, age, sex, race / ethnicity, genetics, effective stress management, and obesity. Of all these risk factors, behavioral factors or specifically referred to as lifestyle are closely related to hypertension morbidity in the young age group. The aims of this study is to determine the determinants that most influence the incidence of hypertension in order to reduce the prevalence of hypertension at a young age in the western and southern parts of the city of Surabaya.

Method: The method used was cross-sectional observational analysis using Chi Square and logistic regression. The sample consisted of 404 respondents taken by Cluster Random Sampling, with inclusion criteria as follows: 18-35 years old, currently not using hypertension medication, never having a stroke and suffering from a heart condition. The respondent's blood pressure check is carried out before and after completing the questionnaire.

Results and Discussions: The results of research that show bad attitudes towards healthy lifestyle, smoking behavior, exercise, fast food, stress, and sleep time have significant results on the incidence of hypertension. Of all factors, smoking behavior was the highest ($p = 0.000$; OR 14.366).

Conclusions: To prevent an increase in the prevalence of hypertension in adolescents and young adults, it is necessary to consider community-related interventions and lifestyles that are at risk of causing hypertension in adolescents and young adults.

Keywords: hypertension, adolescent, young adult, lifestyle, determinant

RELATIONSHIP OF KNOWLEDGE AND ATTITUDES OF MOTHERS WITH IVA PARTICIPATION TESTS AT SIWALANKERTO HEALTH CENTER SURABAYA

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Introduction: The incidence of cervical cancer in Indonesia is still high. This is due to the awareness of women who are married to have a pap smear / IVA test as an effort to detect early cervical cancer that is still low. Examination of IVA is still experiencing problems such as mothers are reluctant when examined for embarrassment or because of lack of knowledge and fear of feeling ill at the time of examination even though the health center officials have provided counseling every month. The purpose of this study was to analyze the relationship between knowledge and attitudes of mothers with IVA participation in the Siwalankerto Surabaya Health Center.

Method: This type of research is an analytical survey with a cross sectional approach. The population in this study were all housewives of fertile age couples who visited the Siwalankerto Surabaya health center, amounting to 184 people. The sample size is 126 people taken by purposive sampling technique. The independent variable consists of mother's knowledge and attitude in early detection of cervical cancer. While the dependent variable is participation in the IVA test examination. The research instrument was a questionnaire and the results of the study were analyzed using the Chi square test.

Results and Discussions: The results showed that the majority of maternal knowledge about IVA examination was lacking (59.5%), most of the mothers' attitudes toward IVA examination were not supportive (negative) as many as 84 respondents (66.7%), most of the mothers (54, 8%) are not willing to test IVA, and there is a relationship of knowledge and attitude with the participation of the test iva with a value of $p = 0,000$ ($\alpha < 0,05$).

Conclusions: Maternal knowledge and awareness must be increased continuously so that the mother has a positive attitude and is willing to do the IVA test.

Keywords: knowledge, attitude, IVA participation tests

PREVENTION OF NEPHROPATHY DIABETIC USING GENETIK RISK MODEL AS PREDICTOR NN TYPE 2 DIABETIC PATIENTS

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The incidence of Type 2 Diabetes (T2D) in Indonesia has been rapidly increased over recent decades, and T2D has become a leading public health challenge in Indonesia. Mutation in gene has been widely recognized as a predisposition in a variety of diseases, including cardiovascular diseases especially in laminopathies, and in neoplasm diseases as well. On the other hand, diabetes mellitus, which has been accredited for cardiovascular complications, especially microvascular ones, which include renal complication in the form of diabetic nephropathy. In these times of state-owned universal health coverage (UHC), preventions, including diabetic nephropathy, whether in early stages or the late ones, has a new meaning. The possibility of using genetic factor in diabetic patients as a means of predictor of possible renal complication in the future, remains a possibility. If we can categorize diabetic patients with genetic risk factor for more meticulous and intensive preventive treatment, with the purpose of preventing future renal complications, also improving live quality of the patients, not to mention easing the possible financial burden to the UHC. We plan to examine diabetic patients with diabetic nephropathy in several health center (hospital and health center) in Surabaya and examining the occurrence of the aforementioned mutations. Comparations studies will be made to define the associations in this study. The results will be used to determine whether we can use this mutation in prevention of diabetic nephropathy. Prevention is the key word

Keywords: Type 2 Diabetes, UHC, genetic risk factor, diabetic nephropathy, prevention

**FACTORS THAT AFFECT MANAGEMENT OF HOUSEHOLD SOLID WASTE
MANAGEMENT IN RW 018 KEDAUNG, PAMULANG, KOTA TANGERANG
SELATAN IN 2019**

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Introduction: Solid waste and its management are now an increasingly pressing problem for cities in Indonesia, at the beginning of human life, garbage has not become a problem, but as the population grows with various activities with the support of technological development and modernization of life, it causes an increase in the number and diversity of types of waste so that the impact caused by increasingly diverse garbage.

Method: This research locates at Kedaung District of Pamulang County, South Tangerang City and focus to find out what factors influence my household waste management. Research is analyzed with cross sectional approach. Data were analyzed using univariate and bivariate tests in the form of chi-square using 95% confidence intervals. The population of this study were all residents in RW 018 Kedaung district of Pamulang county, South Tangerang City as many as 103 houses and respondents.

Results and Discussions: The results showed that 5 of the 6 independent variables studied had a relationship to the dependent variable. Related variables include Infrastructure (p value = 0.000) (OR = 9.028), Supervision (p value = 0.000) (OR = 7.700), Education Level (p value = 0.007) (OR = 3.933), Knowledge (p value = 0.000) (OR = 5.289) and attitude (p value = 0.014) (OR = 3.018), While the variables that do not have a relationship are Trash Generation (p value = 0.110).

Conclusions: It is proved that to the residents in RW 018 to attend counseling or educational activities regarding waste management. Advice given to the manager of RW 018 is to provide solid waste management facilities to support waste management activities.

Keywords: management of household solid waste, diversity of garbage, kedaung district of Pamulang county

THEME 4: Multi-stakeholder partnership to strengthen the health system

THE FACTORS OF HOUSEHOLD CONTACTS PARTICIPATION ON TUBERCULOSIS EARLY DETECTION IN BADUNG DISTRICT, BALI INDONESIA

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Introduction: Tuberculosis (TB) early detection among household contacts is an effective strategy to increase cases finding. During the implementation, household contacts with complete participation were very low (8.2%). This study aimed to identify the factors of household contacts participation on TB early detection.

Method: This was a cross sectional study in Badung District, Bali, Indonesia from July-August 2018. Simple random sampling was performed to select samples among TB household contacts that registered in January-June 2018. Household contact were defined as people that living and sharing enclosed space with TB patients. The factors were based on health belief model with perceive stigma and social support as additional components. Data were collected through face to face interview using a structured questionnaire. Structural equation modeling (SEM) was performed to identify participation factors.

Results and Discussions: One hundred and sixty five household contacts were enrolled from 184 selected. The average of age was 38.3 years old and 95(57.6%) were female, 85(51.5%) were junior high school or lower education level and 139 (84.2%) have health insurance. The factors encourage participation were knowledge regarding TB ($\beta=0.100$), perceived threats ($\beta=0.278$), perceived benefits ($\beta=0.059$), self-efficacy ($\beta=0.148$), cues to action ($\beta=0.292$) and social support ($\beta=0.335$). Hence, the factor discourage participation was perceived stigma ($\beta=-0.390$). The characteristics that associated to participation were age, sex and education.

Conclusions: The factors of participation can be used to develop a comprehensive health education. The education should include psychological aspect and conducted by TB officers as a supplement on contacts investigation implementation.

Keywords: household contacts, participation, tuberculosis examinations, active cases finding.

UNDERSTANDING PATIENT SATISFACTION AND LOYALTY IN PUBLIC AND PRIVATE PRIMARY HEALTH CARE

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Introduction: Health service quality, patient satisfaction and loyalty are three key factors that enable health care providers to improve its quality and cost-effectiveness. This study aimed to investigate patient satisfaction and loyalty in public and private primary health care.

Method: A cross-sectional design was used to measure patient satisfaction and loyalty with 1470 self-administered questionnaires. Data were analyzed based on mean, standard deviation and correlation coefficients in SPSS 24.

Results and Discussions: Findings indicate there was a strong correlation between patient satisfaction and patient loyalty in private primary health care ($r=0.767$). A moderate correlation was found between patient satisfaction and patient loyalty in public primary health care ($r=0.54$). In both types of health services, biological aspects have been described as the most satisfying aspects of care that they received. On the contrary, social aspects were the least important factors affecting patient satisfaction. Private care received more patient loyalty compared to public primary health care in three different aspects of loyalty: same cases, different cases and making recommendations.

Conclusions: It is important for primary health care practices to recognize patient needs that influence patient satisfaction and loyalty, which might in turn affect quality of health services. By identifying its strengths and weaknesses, health care providers can allocate adequate resources to enhance their health service quality. More improvements are required to achieve high-quality services in public primary health care.

Keywords: patient satisfaction, loyalty, Indonesian, primary health care.

THE HAJJ HOSPITAL SURABAYA'S SUPERIOR SERVICE BASED ON THE HIGHEST NUMBER OF VISITS AND INCOME IN THE JKN ERA

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Introduction: Hospital superior services are expected to have more value than other services and become a differentiator with other hospitals, so that *branding* of hospitals can easily enter the minds of the community. RSUD Haji Surabaya facing problems regarding its featured service visits with an average patient per day amounted to 6.11 patients / day. On one side there are services with visits of high but not yet able to provide the advantage that maximum. The purpose of this study is knowing the needs of health services that are most needed and profitable from existing health services in hospitals.

Method: Research descriptive with approach of cross sectional study. Research site at Surabaya Haji Hospital. Research carried out in the year 2018. The variables were studied is the number of visits, and revenue based JKN.

Results and Discussions: Polyclinics with the most number of visits in 2016-2017 were Cardiac Polyclinic, Internal Medicine, Medical Rehabilitation Poly, Nerve Poly, General Surgery Poly and Dental & Mouth Poly. Polyclinics with the most income are Heart Poly, Poly Poly, Dental & Mouth and General Surgery Poly. On the other hand, Medical Rehabilitation Poly and Internal Medicine Poly actually showed a minus INA income.

Conclusions: Featured Services for development of the services already running and have demand high is: Heart Poly, Poly Nerve, Poly Dental & Oral, Poli General Surgery. Polyclinics with high traffic do not always get positive income, even negative, so there is a need to monitor and analyze JKN income every month.

Keywords: Services Featured, Home Hospital, Polyclinic, JKN

UNDERSTANDING OF THE OPERATIONAL CONCEPT OF A FLOOD-RESILIENT URBAN COMMUNITY IN JAKARTA, INDONESIA FROM THE ASPECTS OF DISASTER RISK REDUCTION, CLIMATE CHANGE ADAPTATION AND DEVELOPMENT AGENCIES

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Introduction: Climate change related extreme events such as floods have been and will continue to present a great challenge to disaster risk management. There is a pressing need to develop a robust strategy that is through enhancing the resiliency of the community, particularly in the context complex urban environment, like Jakarta. Resilience is conceptualized within specific contexts and tailored uniquely to the targeted setting, the study regarding the operational concept of flood-resilient community in the context of Jakarta is still limited. This paper aims to elaborate this operational concept through understanding the desirable features and essential barriers of flood-resilient community through the lenses of the three main stakeholders including disaster risk reduction (DRR), climate change adaptation (CCA) and development and discussed the ways to enhance the synergies among these streams.

Method: Both quantitative and qualitative approaches were applied, and multiple sources of data were used.

Results and Discussions: The findings showed that these streams shared common views regarding the importance of human aspect to be the central of resilience building efforts. This article urges the need to shift the flood resilience building paradigm towards building the people and to apply collaborative governance regime to facilitate effective partnership between actors involved.

Keywords: community resilience, flood, climate change adaptation, disaster risk reduction, development, Jakarta

BRAND EQUITY ANALYSIS TO INCREASE HEALTH CARE UTILIZATION

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Introduction: Health care utilization is one of the key indicators in measuring performance of health care services. Some health facilities were found to operate suboptimally. That was the case at a college health care center which 36.5% of students in area of service have never used, according to survey. One of the reasons contributing to the suboptimal utilization was brand factor. Strong brand equity suggests positive correlation to great attraction for consumers to use a product. This study aims to analyze the influence of brand equity on health care utilization. This study uses the three attributes of brand equity, which are: brand awareness, brand association, and brand loyalty.

Method: An analytic observational study with cross-sectional approach was conducted. The population was active students selected by simple random sampling. Total sample was 381 students. The study was conducted from November 2018 to January 2019. Multiple logistic regression tests were used to analyze the influence between variables.

Results and Discussions: According to the measurement, brand equity is shown to be good. Brand awareness and brand association are also found to be good whereas brand loyalty is found to be moderate. There is an influence between brand equity and health care utilization ($p = 0.001$). In the three attributes, brand equity is known to have an influence to the utilization of health care, namely brand awareness ($p = 0.001$), brand association ($p = 0.001$), and brand loyalty ($p = 0.001$). The highest influence of the three attributes is brand association (Exp (B) = 2.501).

Conclusions: Promotion to create familiarity and good impression is required to enhance brand equity and increase health care utilization.

Keywords: brand association, brand awareness, brand equity, brand loyalty, utilization

HOSPITAL STAFF ACCEPTANCE TOWARD MANAGEMENT INFORMATION SYSTEMS IN INDONESIA

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Introduction: The use of hospital information systems in Indonesian hospitals have not met the proper level of acceptance among the staffs. This study aims to assess the intention to use information systems among hospital employees.

Method: This study used an online survey that was disseminated for 2 weeks in July 2019. The questions were developed based on the Technology Acceptance Model with the addition of Perceived Risk. The survey yielded 449 total responses, in which only 400 were determined to be valid for analysis. A total of three factors, namely: Perceived Usefulness, Perceived Ease of Use, and Perceived Risk were measured and then analyzed for its influence on Intention to Use, as well as their relationship to each other. The model was tested using Structural Equation Modeling with SPSS AMOS as the primary tool.

Results and Discussions: The finding shows that only Perceived Usefulness has a significant influence on Intention to Use a hospital information system ($\beta = 0,57$). Furthermore, higher Perceived Ease of Use was associated with higher Perceived Usefulness ($\beta = 0,68$). Accordingly, higher Perceived Ease of Use also associated with significantly lower Perceived Risk ($\beta = -0,49$). However, Perceived Risk did not have a significant influence on Intention to Use. The finding indicates that hospital employees do not yet have a strong perception of risk toward using hospital information systems.

Conclusions: employees' perception of the functions and benefits of using hospital information systems greatly determines their intention to use hospital information systems for completing their daily tasks.

Keywords: hospital staff, management information system, perceived usefulness, technology acceptance model

DETERMINANTS OF FAMILY INDEPENDENCE IN CARING HEBEFRENIC SCHIZOPHRENIA PATIENTS IN MENUR MENTAL HOSPITAL

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Introduction: Positive behavior and intensive in the family is one of the efforts to reduce the recurrence rate in psychiatric patients with schizophrenia, because the family is part of the treatment and recovery team for the patient. The role and support of the family is not only done at home, but during treatment in the hospital. The purpose of this study was to determine the relationship between knowledge, perceptions, attitudes and support with family independence in caring hebefrenic schizophrenic patients.

Method: This research uses correlational analytic design with cross sectional approach. The sampling technique used was consecutive sampling obtained as many as 57 respondents. The independent variables in this study are knowledge, perceptions, attitudes, support as measured by questionnaires. The dependent variable in this study is independence as measured by a questionnaire. Data analysis uses the Spearman rank test.

Results and Discussions: The results of this study indicate that there is a relationship between knowledge, perceptions, attitudes, support and family independence in caring for Hebrew patients with Schizophrenia. Spearman rank test results obtained p-value of 0.008 <0.05 in family knowledge, 0.011 <0.05 at family perception, 0.032 <0.05 in family attitudes and 0.027 <0.05 in family support.

Conclusions: The implication of this study is that family support is important to improve the self-esteem of schizophrenic patients. We hope the hospital can improve the family-based patient recovery program. Hospitals management also need to improve health promotion programs to reduce negative perceptions from the family and community.

Keywords: hebefrenic schizophrenia, knowledge, perception, attitude, support, independence

HOW DO HOSPITALS DEVELOP TOWARDS ‘CLIMATE-SMART’ HEALTHCARE?

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Introduction: The emissions reduction action is urgently needed to keep global warming to 1.5°C. The 2018 Lancet Countdown report showed that the massive emissions of the health-care sector contribute significantly to climate change. The health care sector is critical to addressing the climate crisis with a smarter use of energy, adopting cleaner energy and minimising medical waste. While hospitals ‘eco-friendly’ initiatives are growing globally, but there is still an urgent need to track collective impacts from the individual hospital and accelerate even greater climate action.

Methods: In 2017, Taiwan’s Healthy Hospital accreditation included one of the seven core standards as the ‘Eco-friendly’ standard. Under the core standard, there are the four sub-standards: annual reporting on (1) energy and water efficiency, (2) waste management, (3) green purchasing and (4) monitoring and improvement plan. We analysed the self-reported data on eco-friendly standard includes four sub-standards in the year 2017 and 2018. A total of 198 healthcare facilities includes medical centres, regional and local hospitals participated in the accreditation program.

Results and Discussions: Findings revealed that 77% of the hospitals anticipated all four sub-standards and presented noteworthy practices to achieve emission reduction goals. The availability of practice-based guidelines and expert consultation are useful to drive hospitals to incorporate environment-friendly measures and concepts into their routine operation.

Conclusions: In response to this issue, this paper presents the implementation of the government-led initiative as an effective means to facilitate climate action in hospital settings. It argues that the vital process of supporting both hospitals’ health promotion responsibility and the transition to low-emission services. The paper concludes by pointing out the future directions for governments and network of hospitals in collectively implementing high-potential climate action.

Keywords: climate-smart, greenhouse gas emissions (GHGs), hospitals, hospital accreditation, Taiwan

DEVELOPMENT OF INTEGRATION MODEL TOTAL QUALITY MANAGEMENT (TQM) AND SIX SIGMA (SS) IN HOSPITAL QUALITY MANAGEMENT (Study of Hospitals in Jambi Province)

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Introduction: Implementation of quality management is very important for hospitals to improve processes, solve problems, and reduce variations and errors in service, including through the implementation of popular Total Quality Management (TQM) and Six Sigma (SS) as new quality management strategies to increase profitability, effectiveness and efficiency of the organization's operations to meet customer needs. This study aims to develop an integrated hospital quality management model from the practice of TQM and SS to provide synergy in improving hospital performance.

Method: The study design was cross sectional through a survey using a questionnaire on 863 respondents, namely all employees ranging from doctors to administrative personnel at 8 hospitals. The TQM and SS practice integration model identified as "Quality Management Alliance Model (QMA)" consists of 6 variable constructs, namely: Management Practice (MP); TQM Infrastructure Practice (IPTQM); SS Infrastructure Practice (IPSS); Core Practice TQM (CPTQM); Core Practice SS (CPSS); and Hospital Performance (KRS) with 12 structural equations hypothesized. Data analysis using Structural Equation Model through 2 tests, namely analysis of measurement models using confirmatory factor analysis (CFA) second order approach and structural model analysis.

Results and Discussions: The results of the first order confirmatory factor analysis (CFA) analysis, after issuing invalid indicators ($SLF \leq 0.5$ and $t \leq 1.96$), obtained constructs of latent variables with models fit, valid, and reliable. Then in the second order CFA analysis on the overall model after being simplified through LVS (latent variable score) obtained construct model fit, valid and reliable. The results of the structural model analysis obtained a model fit with 11 structural equations that are positively and significantly related ($t > 1.96$). This study proves that the QMA model is feasible and can be applied to measure the implementation of hospital quality management.

Conclusions: Hospital management is recommended to implement the QMA Model optimally to improve performance.

Keywords: hospital performance, quality management, six sigma, structural equation model, total quality management

HEALTH INSURANCE LITERACY: FACEBOOK USER'S DISCUSSION AND REACTION TOWARD NATIONAL HEALTH INSURANCE IN INDONESIA

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Introduction: Universal Health Coverage always persisted as the pro poor policy in many countries. On behalf of their willingness to achieve Universal Health Coverage, National Health Insurance policy has been implemented in Indonesia. Communication of this government policies related to health are discussed widely in social media, but remain neglected to be information source in policy analysis. This study aims to analyse what are people thinking about this pro poor policy and how they react the policy itself.

Method: We conducted a systematic review on discussions regarding the implementation of National Health Insurance in official Facebook page of National Health Insurance Agency in Indonesia during a year of October 2015 to 2016, just a year and half after this policy launched. The content of those 148 discussions were deductively analysed.

Results and Discussions: Our findings show that most of discussion are mostly pragmatic problems around the people utilization on Social Health Insurance questioning about the benefit and possibility of fund abuse.

Conclusions: This kind of discussion are significantly correlated with the raising of negative reaction of other Facebook users. The debate of National Health Insurance policy and its practice issues in social media should be improve the positive exposure of this policy.

Keywords: national health insurance, utilization, policy, facebook user

IMPLEMENTATION OF HOME CARE SERVICE IN PUBLIC HEALTH NURSING PERSPECTIVE

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Introduction: Technology in the health sector is growing rapidly resulting in an increase in life expectancy, making the elderly population increase and also the epidemiological transition of infectious diseases to non-communicable diseases and from acute diseases to chronic diseases at Home (Home Care) which is a tool to reduce the cost and duration of hospital care. The prevalence of non-communicable diseases in 2018 has increased compared to 2013, among others, cancer, stroke, chronic kidney disease, diabetes mellitus and hypertension. Cancer prevalence rose from 1.4% to 1.8%; the prevalence of stroke rose from 7% to 10.9%; and chronic kidney disease increased from 2% to 3.8%. Based on examination of blood sugar, diabetes mellitus rose from 6.9% to 8.5%; and the results of blood pressure measurements, hypertension rose from 2.5% to 34.1%. The purpose of this study is to analyze the implementation of Home Care services in the practice of community-based Public Health Nursing which had been carried out in health services both government hospitals and private hospitals or at service facilities at the Community Health Center level.

Method: This study used a systematic literature review. Various references were collected from online databases including reports, journals, and books in the last 10 years. Most journals come from scientific journals. Articles are screened according to the research objectives.

Results and Discussions: The results of this study indicate that nursing assessment has been carried out well, nursing diagnoses are well enforced after nursing assessment in response to the patient's condition, signs and symptoms are obtained and arranged in accordance with the priority of the patient's health problems. Nursing planning is made by referring to nursing diagnoses according to the priorities, goals, and criteria for the expected results in the implementation of nursing to achieve the goals. Before carrying out the implementation of nursing is given instructions accompanied by explanations to patients and their families about things that are carried out which are sometimes continued by the family but still monitored by the nurse.

Conclusions: Nursing evaluation is carried out in order to see the progress further in accordance with the stated goals that have been achieved, including seeing whether or not the need to add or revise nursing care plans.

Keywords: Public Health Nurse, Home Care, Implementation, Community Nurse.

MEANS OF KNOWLEDGE SHARING PRACTICE: LESSONS FROM PRIMARY HEALTHCARE INSTITUTIONS IN INDONESIA

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Introduction: Knowledge is a crucial resource for all organizations, and the public health sector is no exception. In fact, knowledge management takes on heightened importance in this context because the stakes can be life and death. Despite the growing literature on knowledge management, little is directed to primary healthcare organizations, and there is even less concerning the means used to share knowledge. This study seeks to address this gap while simultaneously assessing a peculiarly Indonesian model of primary health care: the pusat kesehatan masyarakat, or puskesmas for short, typically rendered in English as Community Health Centres.

Method: Employing a qualitative method, 13 puskesmas from a typical district in Indonesia were studied, with data collection focusing on interviews (n=41) and document review.

Results and Discussions: The findings of this study reveal several means used regularly to share knowledge which include knowledge documents, virtual communication channels (i.e. emails and online chatting applications), and face-to-face encounters such as staff meetings, morning briefings, and personal conversations.

Conclusions: This study concludes that both face-to-face encounters and virtual communication are not mutually exclusive, since both of them are practically useful for facilitating knowledge sharing, albeit each having its own advantages and disadvantages that may surface to greater or lesser degrees depending on the context.

Keywords: knowledge management, knowledge sharing, knowledge sharing means, primary health care, puskesmas.

RESEARCH ON THE STATUS OF MULTI-SECTOR COOPERATION IN NATIONAL CHRONIC DISEASE COMPREHENSIVE CONTROL AND PREVENTION DEMONSTRATION AREAS

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Introduction: To understand and evaluate the current situation of multi-sectoral cooperation in the establishment of national chronic disease comprehensive control and prevention demonstration areas.

Method: Employees who participated in the construction and management of Putuo District in Shanghai and Litong District in Ningxia were interviewed by in-depth interviews with key persons and focus group discussions. According to the grounded theory and the analytical thematic framework, the interview data were analyzed by NVivo 10 software.

Results and Discussions: Health, civil affairs, development and reform, finance, science and technology, commerce, environmental protection, cultural and sports tourism and other departments have established cooperation on comprehensive prevention and control of chronic diseases. Independent deliberation and coordination mechanisms have been established in both districts. However, communication and coordination among departments are lack of initiative, and the form of cooperation is single. Only a few departments have established communication and coordination mechanisms. Both districts have assessment mechanisms for the performance of their departments, but there is a lack of rewards and punishments.

Conclusions: The construction of demonstration areas is an important way to promote multi-sectoral cooperation in the prevention and treatment of chronic diseases in China, but the mechanism to maintain the sustainability and effectiveness of cooperation still needs to be improved.

Keywords: Chronic diseases, national chronic disease comprehensive control and prevention demonstration areas, multi-sector cooperation, Qualitative research

EVALUATION OF UNDATA PUBLIC HOSPITAL SERVICE QUALITY AND PERFORMANCE USING SERVQUAL METHOD: POST MULTI DISASTER (EARTHQUAKE, TSUNAMI, AND LIQUEFACTION) IN PALU, CENTRAL SULAWESI, INDONESIA

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Introduction: Hospital as health care provider must be prepared to manage health services under any condition including disasters. This study aimed to evaluate the quality of service and performance of the Undata public hospital (UPH), as the center of referral hospital in Central Sulawesi especially after the earthquake, tsunami and liquefaction disasters.

Method: This research used an explanatory research design, namely to test the causality relationship between service quality variables and hospital performance values on patient satisfaction using the SERVQUAL method in order to find out the gap between expected service and perceived service. The sample used was 148 inpatients. The sampling was performed using non-probability sampling in which the samples were taken accidentally.

Results and Discussions: This study found that the results of the T test in the multiple linear regression recapitulation table showed t_{count} value of 6.396 and $4.776 > t_{table}$, which was 1.97635 the significance level obtained was smaller than the significance level of 5% distrust ($p=0.000 < 0.05$). Next, t-test results in the recapitulation of multiple linear regression showed that the value of f_{count} was $97.914 > f_{table}$, which was 3.06 with a significance level obtained smaller than the significance level of 5% mistrust ($p=0.000 < 0.05$).

Conclusions: Patients' satisfaction in the Regional Public Hospital of Undata as a whole is still low, with the existence of negative values in each dimension. The quality of service and hospital performance simultaneously and partially have a positive and significant effect on customer satisfaction, so the quality of service and hospital performance must be continuously improved.

Keywords: Hospital Performance, Multi Disaster, Patient Satisfaction, Service Quality

STRATEGIC MANAGEMENT OF EARLY WARNING SYSTEM AND DENGUE FEVER RESPONSE BASED ON MALCOLM BALRIDGE MODIFICATIONS IN TRENGGALEK REGENCY

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Introduction: Dengue hemorrhagic fever (DHF) is a major health problem in Trenggalek with cases that remain higher and placed as the 5 top regions in East Java Province with 1,159 dengue cases. Strategic efforts are needed for the prevention and control of dengue cases in Trenggalek Regency, one of which is by implementing an Early Warning and Early Response System (EWARS). The purpose of this study is to analyze the strategic management of the implementation of the DHF EWARS based on the modification of Malcolm Balridge.

Method: This study was an observational study using evaluative methods through quantitative and qualitative approaches. The design was cross sectional study and conducted in Trenggalek Regency, involving 37 respondents who were chosen by purposive sampling.

Results and Discussions: The results of the study showed that the strategy development of the Region Health Department scored 84.38 (safe category), the Puskesmas scored 75 (quite safe category), the jumantik cadre scored 53 (dangerous category). In the aspect of strategy implementation, the Region Health Department scored 78.13, (safe category), the Puskesmas scored 72.5 (quite safe category), and jumantik cadre scored 62 (quite safe category).

Conclusions: The conclusions in this study is the need to analyze strengths, weaknesses, opportunities and threats either same sector or related sectors. The recommendation given is the need to optimize jumantik cadres as the first party close with the community need to be equipped with DHF EWARS based on mobile and immovable applications that can help speed and accuracy of reporting data.

Keywords: dengue fever, EWARS, malcolm balridge

PESTICIDE TOXICITY PREVENTION IN COMMUNITY MOVEMENT AT SUMBER MUFAKAT VILLAGE

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Introduction: Pesticide toxicity is a serious problem in poor and developing countries agricultural community including Indonesia. This study aims to design an effort of pesticide toxicity prevention.

Method: this is an applied study with PAR approach cycle that carried out in look, think and action stages. It conducted on farmers at Sumber Mufakat, Kabanjahe as a pilot project of formulating efforts to prevent pesticide toxicity. This village has 9 hamlets with plants spread flowers, beans, carrots, potatoes, and chillies. The participants were taken by purposive technique that selected by who will participate and willing to be an agent, committed, healthy, communicated, and able to work together. All action were analyzed in descriptively.

Results and Discussions: the results found that pesticide use in communities had a high risk such as direct contact, not using protective driers, spraying while smoking, blowing pump hoses directly, and poor personal hygiene. Several factors that influence is ignorance of farmers about the toxic effects and unusually of personal protection used. Farmers ignorance that it able to cause chronic toxicity. The actions arranged as an effort to prevent toxicity, including recognizing the hazard of pesticide, using appropriate personal protection, paying attention to the wind direction, storing pesticides in a safe place, planting all remaining pesticides, personal hygiene, report toxicity immediately, and use the natural pesticides that called GEMPAR.

Conclusions: Efforts to prevent pesticide toxicity in community movement formulated in eight actions that meet the level of primary, secondary, and tertiary prevention.

Keywords: farmer, GEMPAR, pesticide, prevention, toxicity

EFFECT PURSED LIP BREATHING: PAPER WINDMILLS AND DEEP BREATHING RELAXATION TO DECREASE RESPIRATORY FREQUENCY IN COPD PATIENTS AT A.YANI ISLAMIC HOSPITAL SURABAYA

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Introduction: Chronic Obstructive Pulmonary Disease (COPD) is a condition that causes the reversible movement of air in and out of the lung. The main problem that is usually experienced by patients with COPD is the occurrence of dyspnea (shortness of breath). COPD patients who usually experience shortness of breath will be seen from an increase in respiratory frequency. This study aims to determine the effectiveness of pursed lip breathing: paper windmills and deep breathing relaxation to decrease the respiratory frequency of COPD patients in A.Yani Islamic Hospital Surabaya.

Method: The methods are quasy experiment, two group pre and post test designs. The number of respondents in the study were 38 respondents. The statistical test used is the Paired t-test and Unpaired t-test.

Results and Discussions: The results of the analysis of the Paired t-test obtained significant results from the PLB technique: paper windmills and deep breathing relaxation with each p value of 0,000. While the results of the Unpaired t-test showed a p value of 0,000 so it can be concluded that there was a difference in effectiveness between pursed lip breathing interventions: paper windmills and deep breathing relaxation to decrease respiratory frequency in COPD patients at A.Yani Islamic Hospital Surabaya.

Conclusions: paper windmills are more effectively used to reduce respiratory frequency in COPD patients.

Keywords: COPD, Respiratory frequency, PLB: paper windmills, deep breathing relaxation.

ANALYSIS OF DISEASE PREVENTION AND CONTROL SERVICES PROVISION IN PUBLIC TERTIARY GENERAL HOSPITALS IN BEIJING

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Introduction: To investigate the implementation of disease prevention and control services in public tertiary general hospitals in Beijing for providing evidences to explore and build scientific evaluation model of disease control service in medical institutions.

Method: Through a questionnaire survey of 50 public tertiary general hospitals in Beijing 2018, a descriptive analysis was made on the department setting, personnel allocation and service provision status of disease prevention and control in public tertiary general hospitals in Beijing.

Results and Discussions: Among the 44 investigated public tertiary general hospitals, 59.1% medical institutions have set up departments of disease prevention and control with an average of 5.8 persons. The professional composition of the staff is dominated by nursing and clinical majors, and the academic and professional titles are dominated by undergraduate and medium-grade professional title respectively. The overall performance of disease prevention and control services in public tertiary general hospitals is good. The work was well carried out in communicable disease control and death-surveillance management, generally in immunoprophylaxis, chronic noncommunicable diseases and injury monitoring, and vary widely in mental health services, occupational health management, environmental and health monitoring and other functions.

Conclusions: The personnel allocation of disease prevention and control meets the requirements of health administrative department in public tertiary general hospitals in Beijing, but compared with the health needs of residents, the professional ability and management level of personnel still need to be improved. The development of the disease prevention and control function of medical institutions is still limited to the management of infectious diseases, while it is not yet clear to the prevention and control function of chronic diseases that seriously threaten the health. So based on the arrangement of health administrative departments, the classification and grading evaluation of disease prevention and control service in medical institutions should be explored according to the function type and quantity of disease prevention and control services undertaken by medical institutions.

Keywords: disease prevention, control services, public tertiary general hospitals

KNOWLEDGE OF PREGNANT WOMEN ABOUT HEPATITIS B BY CARRYING OUT LABORATORY TESTS

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Introduction: Liver disease by the hepatitis B virus is a big problem in the world, an estimated 400 million people are carriers of this virus. attack all ages, genders, and races throughout the world. About 5% of the world's population has hepatitis B without symptoms. The prevalence in Indonesia is around 5-17%. Pregnant women positively infected with hepatitis B have a greater risk of giving birth prematurely, low birth weight (LBW), to experience disability. Women who are detected to have hepatitis B e-antigen (HBeG) are the most infectious. In fact, pregnant women do not all know the importance of hepatitis B screening. Pregnant women are not all routinely screened for hepatitis B, so it has been discovered that pregnant women suffer from hepatitis B at 28 to 37 weeks' gestation.

Method: This type of analytic research is observational approach, cross sectional time approach, sampling technique using purposive sampling, the number of samples is 94 respondents. The study was conducted from 4 to 17 February 2019 at the D3 Midwifery Study Program at the University of Tulungagung, Analysis using Chi Square.

Results and Discussions: The results, from 94 respondents who had good knowledge and conducted 8 laboratory examinations (19%), enough knowledge then conducted laboratory examinations of 50 respondents, while knowledge was lacking and did not conduct laboratory examinations of 16 respondents. Chi Square calculation p-value of $0.026 < 0.05$, meaning that there is a relationship between the knowledge of pregnant women about hepatitis B with laboratory tests. Facts and theories are in line with the majority of respondents aged 17-25 years so that the process of thinking or Intellegentia Quetient (IQ) is good and willing to do a laboratory examination of hepatitis B because it knows its benefits for pregnancy and also the health of the mother and fetus to be born.

Keywords: knowledge, hepatitis B, laboratory examination

COMMUNITY PARTICIPATION AND RISK COMMUNICATION FOR DENGUE PREVENTION & CONTROL IN MALAYSIA

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Queensland estimated 50 million of dengue infections with 20,000 deaths reported in tropical and subtropical climates countries each year since the past decade. The risk of getting secondary dengue infections which led to severe illness and fatality were high due to the availability of all dengue serotypes in the endemic countries. The subsequent of uncontrolled aedes population through urbanization, population growth, poor waste management and ineffective mosquito control have significantly contributed to the rise of aedes population and the disease transmission. WHO (World Health Organisation) has developed dengue prevention and control strategies with the aim to mitigate the disease transmission. Concluded the suggested strategies, community participation been identified to reduce aedes population and the risk of infections through two main methods; dengue source reduction and personal protection. Moreover, good involvement and commitment from the public were the main focus to achieve the desired outcomes. Studies have suggested that good participation in dengue source reduction and personal protection behaviour are necessary to assist the public to identify and assess any health problems or opportunities to develop a collective response towards their health sustainability. Hence, community participation is seen as a tool in public health to help the public understand the health issues. However, to sustain the success of community program remains the greatest challenge. The issue of trust, low disease risk perception and insufficient knowledge about the disease lead to the poor commitment, collaboration and communication by the community which end up with lack of participation and the persist of the disease spreads. Thus, risk communication is identified as one of the potential strategies suggested by WHO to deal with those challenges. Risk communication plays an important role in facilitating community participation especially during any disaster or health crisis. In public health, risk communication has been identified as a mechanism to improve the effectiveness and efficiency of multi-sectorial collaboration which is proven as an ideal tool in managing such challenges in health crisis before, during and after the disease outbreak. The good implementation of the strategic principles of risk communication has attracted the community to participate together with other stakeholders to mitigate disease transmissions and end the outbreak such as the experience from H1N1, SARs, Ebola and recently Zika. However, only a little study has been done to identify the role of risk communication in community participation for dengue prevention and control. In Malaysia, the need of the good strategies in dengue prevention and control are crucial due to the high reported cases of dengue infection and deaths annually. Located in a tropical climate region, rapid development, population growth (especially in urban area), poor in solid waste, construction sites and industrial areas management are among the contributors for high aedes population and dengue cases. Integrated collaboration with relevant stakeholders including the public have been included in the dengue prevention and control agenda, unfortunately the issues of commitment, communication, and coordination remain as the challenges during the implementation process. The issue of poor participation from the community especially in dengue source reduction activities and personal protection behaviour will increased the high risk of dengue infections. Trust, insufficient knowledge, dependency mentality and low risk perception of the disease are the challenges that contributes to the low participation in dengue prevention and control. Therefore, this research aims to investigate the challenges of community participation and the potential used of risk communication to facilitate community participation in dengue prevention and control in Malaysia. Qualitative

methods will be applied in this study to examine the challenges and potential risk communication strategies in facilitating the community participation. Qualitative methods, including nominal group, focus groups and in-depth interviews, will be used in data collection technique for this research. Through this research, we hope to improve community participation strategies in dengue prevention and control along with policy development to reversing trend of dengue cases especially in Malaysia.

Keywords: risk communication, dengue, community participation, Malaysia

A MODEL OF NON-SMOKING REGIONAL POLICIES IN PREVENTING CHILDREN SMOKING HABITS IN PALU CITY, INDONESIA: A SYSTEMATIC REVIEW

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Introduction: Smoking habits have become a culture for the Indonesian people. Teenagers, adults, and even children are familiar with the deadly object. Smoking cases at the age of the child will be very fatal because of the age of the child who is still in the process of growth. The prevalence of smokers in Palu City aged under 20 years experienced fluctuations, namely in 2015 there were 153 smokers, in 2016 there were 315 smokers, in 2017 there were 1,073 smokers and in 2018 there were 969 smokers. The purpose of this systematic review is to develop a model of non-smoking regional policies in preventing children smoking habits in Palu City, Indonesia.

Method: This research used a systematic literature review. Various references were collected from online database including reports, journals, and books in the last 10 years. The journals were mostly from the scholarly journals. The articles were screened according to the research objectives. The keywords used are non-smoking regional policies and children smoking habits.

Results and Discussions: This study showed that the use of a model of non-smoking regional policies is very effective in preventing children smoking habits. The bureaucratic structure has been running well in its implementation to prevent smoking habits in children, namely by implementing non-smoking regional policies that are in accordance with the standard operational procedures. While the communication, disposition and resources have not been good in its implementation to prevent smoking habits in children due to differences of opinion among policy makers, lack of human resources and lack of commitment from stakeholders in implementing non-smoking regional policies.

Conclusions: This paper concludes that a model using non-smoking regional policies is effective for prevent children smoking habits. Further recommendation will be provided.

Keywords: non-smoking, regional policies, children, smoking habits

THE ROLE OF CADRE IN EXCLUSIF BREASTFEEDING VILLAGE IN WONOKROMO SURABAYA

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Introduction: Since 2016, the Surabaya City Government has launched a program called exclusive breastfeeding village. The exclusive village itself has a goal to increase public awareness, especially mothers giving exclusive breastfeeding and providing knowledge to the exclusive breastfeeding support groups. Whereas in Wonokromo village, it will become exclusive breastfeeding program starting in 2019. The purpose of this study was to determine the role of cadres about exclusive breastfeeding before and after the existence of the exclusive breastfeeding village program in Wonokromo Sub-district, Surabaya.

Method: This research uses a qualitative approach and is descriptive in nature. The population is all cadres supporting of exclusive breastfeeding is 102 people. Sampling uses a total sampling technique. Data collection using a questionnaire and analyzed with descriptive qualitative techniques.

Results and Discussions: This research showed that the role of cadres before the exclusive breastfeeding village program was almost half (47 %) had a good role while after existence of the exclusive breastfeeding village program the role of cadres had increased is almost (99 %) had a good role.

Conclusions: This shows that the existence of the exclusive breastfeeding village program can increase community participation in participating in exclusive breastfeeding programs. It is hoped that the achievements of exclusive breastfeeding will improve and the health of mothers and babies also improve. The breastfeeding village program has a strategic role in increasing the knowledge and skills of breastfeeding support groups. In breastfeeding village activities, mothers will get tips on how to breastfeed properly, including encouraging mothers to eat foods that contain good nutrition.

Keywords: breastfeeding village, role of cadre, exclusive breastfeeding

THE COMPARISON OF FAMILY SUPPORT, CORPORATE IMAGE, SATISFACTION, AND LOYALTY BY METHODS OF HEALTH SERVICE PAYMENT

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Introduction: The utilization of the healthcare card from BPJS Kesehatan, Indonesia's national health insurance scheme, reached a mere 2.19% from September to November 2018 at Bank "X" Gresik. This study aims to compare family support, corporate image, satisfaction, and loyalty among the insurance participants.

Method: This study used an observational analytic study design with cross-sectional. Sampels were employees of Bank "X" by simple random sampling. The data was received a questionnaire whose data were then analyzed using descriptive analysis.

Results and discussions: This study show that family support is the weakest for the participants who pay in cash or use BPJS Kesehatan. The worst corporate image is BPJS Kesehatan. The lowest satisfaction is from BPJS Kesehatan. The least loyal are the participants who pay in cash.

Conclusions: These results suggest that it is necessary to improve health services despite the payment methods used by the participants and to encourage any leader to be a role model for their subordinates in making use of BPJS Kesehatan.

Keywords: family support, corporate image, satisfaction, loyalty, BPJS Kesehatan

INTENTION TO QUIT SMOKING: WHAT ARE THE PREDICTORS AMONG THE YOUNG CURRENT SMOKERS IN BANGLADESH?

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Introduction: In Bangladesh, 23% of adult aged ≥ 15 years currently smoke tobacco and 70% of them have intention to quit which is the first step towards cessation. Identifying predictors of intention to quit is crucial among young people as the average age of smoking initiation is 19 years in Bangladesh. This study aimed to identify the predictors for intention to quit smoking among the young current smokers, who were university students in Dhaka, Bangladesh.

Method: A cross sectional survey was conducted with the students of 18-25 years who had been smoking for at least 12 months and were the students of four private Universities in Dhaka, Bangladesh. Snowball sampling was used to recruit participants. A structured self-administered questionnaire was used to collect data. The questionnaire included information on socio-demographics, smoking behaviour, intention to quit smoking and Fagerstorm nicotine dependence scale.

Results and Discussions: There were 471 total study participants, mean age was 22.4 (± 1.8) years and 409 (87%) were male. More than half of the total participants (54%) intended to quit smoking. About half of them (48%) had been smoking for >3 years and 69% had moderate to severe nicotine dependence according to the modified Fagerström scale. Only 32% was aware of smoking cessation medication or instruments, and half of them was aware of current anti-smoking laws of the country. The main reasons for intention to quit were health concerns (46%), affordability (23%) and family influence (20%); and for relapse was addiction (25%). Intention to quit smoking was strongly associated with past quit attempts (OR 1.89, 95% CIs 1.54-2.32), awareness of smoking cessation methods (OR 1.20, 95% CIs 1.02-1.40) and anti-smoking laws (OR 1.21, 95% CIs 1.03-1.42), consideration of affordability as the primary reason to quit (OR 1.27, 95% CIs 1.03-1.56).

Conclusions: Predictors of intention to quit smoking identified through this study should be utilized in developing targeted tobacco control interventions for young people, not only in Bangladesh, but similar settings in South Asian countries.

Keywords: Bangladesh, cessation, predictors, smoking, young

INTOXICATION AND INCARCERATION: ALTERNATIVES TO INDONESIAN DRUG POLICY THROUGH PUBLIC HEALTH PERSPECTIVE

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Introduction: Indonesia is home to more than 250,000 prisoners, many of whom were convicted of drug offences. While incarcerated, there are barely any rehabilitative programs which can support inmates to leave destructive drug habits behind. In one study of HIV-infected male prisoners in Indonesia, 93% of participants reported sharing unclean injection equipment. Indonesian prisons are notoriously overcrowded, which lead to poor outcomes in the care and rehabilitation of inmates as well as security aspects of incarceration. After release, with no rehabilitation and limited skills for employment, inmates often reoffend and potentially spread blood-borne diseases acquired through contaminated needles in prison. The purpose of this paper is to explore an alternative to incarceration for low-level drug offenders as a public health intervention to stop prison-related harms in Indonesia.

Method: Literature review and empirical data were obtained through electronic database and in-person observation of several prisons in Indonesia and Australia.

Results and Discussions: Portugal has decriminalised all drugs and redirected funding to employment and rehabilitative programs for people who use drugs with tangible success. Australia has opted to adopt rehabilitative programs as a harm reduction strategy. Indonesia might be able to adopt similar approaches to reduce overcrowding in prisons and reduce public health threats in the community upon release.

Conclusions: This paper explores the approaches Indonesia can emulate to solve public health issues in incarceration.

Keywords: *drugs, harm reduction, prison, rehabilitation*

IMPLEMENTING RESPONSIVE CULTURE IN PUBLIC HEALTH CENTERS CILINCING SUB-DISTRICT NORTH JAKARTA: CASE OF SALTED FISH PRESERVATION

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Introduction: The purpose of this study were: (1) to confirm indicators of determinants of variable responsive culture, management awareness and organizational commitment; (2) to measure responsive culture, management awareness, organizational commitment, and identification of formalin in salted fish before and after application of responsive culture; (4) to analyse effect of management awareness and organizational commitment on responsive culture; and (5) to determine the best model of influences pathway.

Method: The design used is the responsive culture module, observational and cross sectional to take organizational culture snapshots and establish causal relationships between variables through hypothesis test. Descriptive analysis was used to determine distribution of respondents to: (a) responsive culture; (b) management awareness; (c) organizational commitment; and (d) identification of formalin salted fish. SEM (Structural Equating Modeling) test was used to: (1) confirm the responsive culture indicators; (2) test the effect of management awareness and organizational commitment on responsive culture and the presence of formaline in preserved salted fish; and (3) determine best model of influence pathways.

Results and Discussions: The results show: (1) management awareness has a direct effect on organizational commitment; (2) organizational commitment to responsive culture and responsive culture to the presence of formaline in preserved salted fish. It was proven responsive culture plays an important role in overcoming the problems of Puskesmas performance.

Conclusions: Reading and implementing the responsive culture module in the Cilincing Public Health Centers was adequate in terms of management awareness; enough in terms of organizational commitment and sufficient in terms of responsive culture formation.

Keywords: responsive culture, awareness management, organizational commitment, salted fish preservation

QUALITY TOWARDS THE SWITCHING COSTS OF BPJS KESEHATAN FOR EMPLOYEES

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Introduction: Employees at "X" Bank in Gresik using BPJS Kesehatan (Health Care and Social Security Agency) from September to November 2018 were only 2 out of 91 in total (2.19%), while 17 employees (18.6%) preferred to use the reimbursement from healthcare allowance provided by their companies. This study aimed to find out the correlation of the medicine service quality towards employees' switching costs as BPJS Kesehatan participants.

Method: This study employed a cross-sectional method with questionnaires as the instrument. There were 48 employees serving as the samples chosen from simple random sampling.

Results and Discussions: The results of the study revealed bad respondents' assessment on the medicine service quality of BPJS Kesehatan, especially for Tangible variable with the mean scale of 2.09 and 1.95 for Responsiveness variable. The low Tangible and Responsiveness values could be due to the availability and long wait time of medicine. The switching costs of BPJS Kesehatan showed a mean scale of 2.88 which means that the respondents objected to adding other private insurance products. The reason might be that each respondent was obliged to have BPJS Kesehatan that they would feel reluctant to have more than one health insurance.

Conclusions: The results of the correlation test showed related variables with switching costs namely Tangible and Responsiveness.

Keywords: BPJS, Medicine, Switching Costs

COST EFFECTIVENESS ANALYSIS USING DISABILITY ADJUSTED LIFE YEARS FOR CATARACT SURGERY

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Introduction: Cataract placed second among the most prioritized eye diseases in the world. Cataract requires an expensive cost for its treatment because surgery is the only method that can treat the disease. This study aims to analyze the cost effectiveness between each operating procedure, specifically: small incision cataract surgery (SICS) and phacoemulsification with Disability Adjusted Life Years (DALY's) as its effectiveness indicator.

Method: This study is an observational analytic study with prospective framework. The sample size is 130 patients undergone phacoemulsification and 25 patients undergone SICS. The sample criteria for this study is a patient with mature cataract, without glaucoma complication, ablasio retina and traumatic cataract. The cost consists of direct cost (treatment cost) and indirect cost (cost of lost productivity, transportation cost, and supporting cost). The cataract surgery effectiveness is measured using DALY, the burden of disease in lost year because of the disease.

Results and Discussions: The average total cost for SICS is IDR 10,438,944 while for phacoemulsification, the average total cost is IDR 10,802,915. The DALY for SICS is 0.3060 while for phacoemulsification, the DALY is 0.3165. Cost effectiveness ratio for cataract surgery using SICS (CER = 34,114,195) is bigger compared to using phacoemulsification (CER = 33,718,583).

Conclusions: The SICS technique is indicated to be more cost effective compared to phacoemulsification.

Keywords: cataract surgery, cost effectiveness analysis, disability adjusted life years

NURSE PERFORMANCE MODEL IN TERMS OF THE VALUE OF LOCAL CULTURE PHILOSOPHY AND LEADERSHIP IN BIMA GENERAL HOSPITAL WEST NUSA TENGGARA-INDONESIA

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Introduction: Value of local cultural philosophy in terms of nurse performance is a unique thing. So that research on philosophical values has not been done much by researchers. On the other side, culture determines how organizations respond to changes the external environment and other social issues. The Purposes of the research is to analyze the value of local cultural philosophy and leadership in Bima General Hospital towards nurse performance.

Methods: This research used the Mix method. Data collection through in-depth interviews with a number of informants consisting of hospital director, nurses, community leader and then continued by conducting FGD. From those steps, the researcher creates some questioners that have been validated and reliable.

Result and Discussion: The data obtained were analyzed through multiple linear regression tests at an error 5%. The results of the study showed that there is an effect of local philosophical value on nurse performance but not significant (P value 0.884) with a large coefficient of effect of local philosophy on nurse performance 0.022 which means that local philosophical values, had an effect on nurse performance but the effect were very small. While leadership had a significant effect on nurse performance (P value 0,000) with a coefficient of 0.817, which means that leadership, had a strong effect on nurse performance.

Conclusion: This paper concludes that both local philosophy value and leadership were affected to nurse performance. Even though local philosophy value had a small effect to nurse performance but it can be a source of cultural theory of public service organizations, in particular general hospital Bima.

Keywords: Nurse Performance Model, Local Philosophy, Leadership, Hospital.

THE RELATIONSHIP BETWEEN NUTRITION STATUS AND PHYSICAL ACTIVITIES WITH BLOOD GLUCOSE LEVELS ON ELDERLY WITH TYPE 2 DIABETES MELLITUS

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Introduction: Type 2 diabetes mellitus is a degenerative disease with a tendency to increase in the elderly. One of the goals of diabetes management is maintaining blood glucose levels within normal limits to prevent complications. Several factors play a role in maintaining normal blood glucose levels. The purpose of this study was to determine the relationship between nutritional status and physical activity with blood glucose levels in the elderly.

Method: The study design used correlational with cross sectional approach. The study was conducted at Mardi Waluyo Blitar Hospital on May 4-15, 2017. The population in this study was 300 elderly people with type 2 diabetes mellitus who went to a polyclinic in Mardi Waluyo Blitar Regional Hospital. The sampling used in this study was accidental sampling, a sample of 100 elderly people with type 2 diabetes mellitus. Assessment of nutritional status using BMI, physical activity using the International Physical Activity Questionnaire (IPAQ) and blood glucose levels using the Glucose test. Data analysis using Spearman Rank.

Results and Discussions: The results showed there was a relationship between nutritional status with blood glucose levels with $p = 0.05$, while physical activities were not related to blood glucose levels with $p = -0.119$. Increased nutritional status in the elderly type 2 diabetes mellitus causes an increase in blood glucose levels, if physical activity is increased within the tolerance range it can have a positive impact on insulin regulation and blood glucose levels.

Keywords: type 2 diabetes mellitus, blood glucose level, elderly, nutritional status, physical activity

WHAT INFLUENCES YOUTH DECISION ON USING “REMAJA SEHAT” APPLICATION?

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Introduction: Adolescent Reproductive Health problems are still a priority in Indonesia. One of the causes of this problem, because of access to information that is still conventional. Therefore knowledge about reproductive health must be improved through applications that are in accordance with the characteristics and needs of adolescents. “Aplikasi Remaja Sehat” as a source of information and educational media in it in addition to information about the health of adolescent purchases is also available about adolescent reproductive health.

Method: This study was conducted on Surabaya high school students with the aim of analyzing the variable diffusion of innovation (relative advantage, compatibility, complexity) with the results of the use of “Aplikasi Remaja Sehat”. The method used in this study was pre-experimental by designing a post-only design. Samples taken by simple random sampling were taken as many as 302 samples.

Results and Discussions: The results showed that there were significant differences with the degree of conformity with the application (p-value = 0.026) while compatibility (p-value = 0.304) and complexity (p-value = 0.312) had no significant effect on the decision.

Conclusions: The Conclusions in this study are related to the variable diffusion of innovation that is relative to the decision to use healthy teenagers. Therefore “Aplikasi Remaja Sehat” can be used as a health promotion medium for adolescents that is suitable for teenagers' needs.

Keywords: applications, adolescents, decisions, relative advantages, compatibility, complexity

NURSE'S CHARACTERISTICS IN TRIAGE ROOM AT GENERAL HOSPITAL OF DR. SAIFUL ANWAR MALANG

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Introduction: Emergency services are services that require fast and appropriate services to prevent death and disability. In handling emergency patients, emergency room has a triage system in carrying out emergency actions. Triage is a process of selecting patients according to the level of emergency and priority in handling patients. Triage is one of the nursing skills that must be owned by an emergency unit nurse, this is what distinguishes emergency department nurses from nurses in other rooms. The goal of this study is to find the characteristics of nurses in the Triage Room at General Hospital of dr. Saiful Anwar Malang.

Method: The research design is a descriptive quantitative approach. The population covers all nurses in the Triage Room at General Hospital of dr. Saiful Anwar Malang with the total of 13 people using total population. The data collection tool uses a questionnaire that has been tested for validity and reliability. The results of the research used univariate analysis using frequency distribution to know characteristics of nurses in the Triage Room at General Hospital of dr. Saiful Anwar Malang.

Results and Discussions: The results showed that more than half (55%) of respondents had good knowledge, more than half (54%) of respondents had a good experience index, and more than half (60%) of respondents had sufficient training indexes.

Conclusions: Based on the results of the study, it is expected to motivate nurses to increase their knowledge about triage and participate in all training related to emergencies.

Keywords: characteristics, emergency, nurses, triage

STUDY OF ELECTRONIC SMOKER KNOWLEDGE IN COMMUNITIES VAPORIZER IN MAKASSAR CITY

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Introduction: Smoking is one of the main problems in public health. The results of the 2108 Basic Health Research (Ministry of Health of the Republic of Indonesia, 2018) showed that the total population of Indonesian smokers despite a decline from the results of the 2013 Basic Health Research (2018) amounted to an increase in use in the population aged up to 18 years by 66% of the total population, increasing to 68.2%. Electric cigarette users in light electric cigarette users. There is a correlation of knowledge about electronic cigarette ($p = 0,014$), Indonesia also continue to increase. In 2014, out of a total of teenage smokers, 2.1% were found as vaporizer teenagers during the last 30 days, and this happened to 3% of boys and 1.1% of girls. This study aims to determine the level of knowledge as a major predictor of the actions of voprizers consuming electronic cigarette on Vaporizer Community at Makassar City.

Method: The research used cross sectional study with 157 samples. The sample was chosen by simple random sampling. The analysis used is chi square test and logistic regression test to see the variables most related to the use of electronic cigarette on Vaporizer Community at Makassar City.

Results and Discussions: The results showed that most (53.5%) of respondents were heavy electric cigarette users and 46.5% were Knowledge has proven to be the motivation motivation to use electronic cigarette ($p = 0,001$) with electric cigarette usage at Vaporizer Community at Makassar City. The result of logistic regression analysis shows that the motivation to use electronic cigarette is the most related to the use of electronic cigarette on Vaporizer Community at Makassar City ($p = 0,005$; OR = 2,611 95% CI; 1,338-5,093).

Keywords: knowledge, motivation and Practice

THE CHARACTERISTIC OF PEOPLE WITH TUBERCULOSIS BY TYPE OF TREATMENT SELECTED BEFORE DIAGNOSED IN SURABAYA, EAST JAVA, INDONESIA

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Introduction: The acceleration of tuberculosis (TB) cases finding is an important strategy on TB elimination program. Self-treatment is a major problem that should be prevent on TB cases finding acceleration. This study aimed to describe the sociodemographic, clinical characteristic by type of treatment that selected by PWTB before diagnosed in public health centers (PHC).

Method: This was a cross sectional study in Surabaya City, East Java, Indonesia from April-June 2018. All PWTB aged >15 years old who diagnosed from January until May 2018 in East Surabaya were selected for interview. The type of treatment defined as type of treatment that selected and used by PWTB before diagnosed in PHC. The characteristics were including sociodemographic and clinical characteristic, knowledge and attitude regarding TB. Data were collected through face to face interview using a structured questionnaire.

Results and Discussions: This study succeeded to interview 160 PWTB, the average of age was 43.2 years old, 90 (56.3%) were female, 88(55.0%) were senior high school or higher education level and 143 (89.38%) have health insurance. We found 40 (25.0%) PWTB previously seeking treatment to private practitioners (PPs), 75(46.9%) to hospitals/PHC, and 45(28.1%) self-treatment. The characteristic comparison of PWTB who previously seeking treatment to PPs vs hospital/PHC vs self-treatment were: female (65%;68%;29.9%, p value<0.001), education level senior high school or higher (67.5%;50.7%;51.1%, p value=0.028). The mostly symptoms were sputum cough (77.5%;56.0%;71.1%, p value=0.045), prolong cough (80%;62.67%;84.44%, p value=0.018), weight loss (72.5%;46.7%;75.6%, p value=0.002) and pain in the chest (37.5%;20.0% 15.6%, 0.078). The knowledge and attitude regarding TB who seeking treatment to PPs or hospital/PHC were higher compare to who self-treatment.

Conclusions: The particular individual, clinical characteristic, of PWTB who previously self-treatment should be prioritize for health education program. The education should be comprehensively increase their knowledge and attitude regarding TB especially the cause, mode of transmission, mode of prevention and the severe consequent of TB.

Keywords: Tuberculosis, health seeking behavior, cases finding, private practitioners.

HOSPITAL LABORATORY MANAGEMENT IN DEALING WITH DISASTER

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Introduction: Dealing with disaster victims is one of the substantial function of the hospital. In order to a disaster situation, the hospital might become the endpoint of people destination that makes the hospital should take adequate preparation. Clinical laboratories in the hospital are one of the prominent sectors that must continue to operate and recover immediately. There are three main services in clinical laboratories should be consisting for confirmation of diagnostic infectious diseases with high mortality rates. The availability of standard diagnostic tests to deal with injuries, blood preparation and patient administration safety is needed in disaster situation.

Method: This is a literature review study. Various references were collected from online databases including reports, scientific journals, and books in the last 10 years. Articles are screened according to the research objectives. The keywords used are laboratories, hospitals, disasters, Point Of Care Testing (POCT).

Results and discussion: POCT is defined as the tools of a laboratory diagnostic test that used in a disaster situation effectively. It can be operated by anyone who has been trained, however, it quite constrained by temperature, earthquake shocks and battery life. Storage and reagents supply such as the strip test might be prepare before the disaster. Moreover, Maintenance and validation of POCT tools in disaster preparation is necessary. Hospitals must prepare POCT to conquer the limitation of electricity sources, human resources, and buildings situation where the using laboratory diagnostic analyzer not possible. The POCT suitable to be conveyed anywhere both within the hospital and to disaster sites using the vehicle.

Conclusions: POCT has the enormous potential as an emergency Laboratory examination tool both at the hospital and at the disaster site to grip patient safety.

Keywords: laboratories, hospitals, disasters, Point Of Care Testing (POCT).

STRENGTHENING HUMAN RESOURCES IN IMPLEMENTING HEALTHY INDONESIA PROGRAM BY FAMILY APPROACH (A CASE STUDY OF THE IMPLEMENTATION OF THE PIS-PK PROGRAM AT THE HEALTHCARE LEVEL)

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Introduction: The Healthy Indonesia Program is a government program aimed to improve the quality of Indonesian life. The Healthy Indonesia Program (PIS-PK) is implemented by family approach. In its implementation, there found many problems from the human resources. The implementation of PIS-PK used survey method become the additional burden for the Primary Healthcare workers because they have to be conducted directly as surveyor. The workers feel that they have double job due to complete the main task and conduct a PIS-PK survey. These workloads are not followed by appropriate reward. The aim of this study was to examine the human resource in the implementation of PIS-PK in Healthcare.

Method: This research was a qualitative study used case studies, collected data through in-depth interviews, FGDs, and document review. Informants were stakeholders in the Public Health Service and Primary Healthcare workers.

Results and Discussions: There was a weakness of human resources as the main practitioner of the PIS-PK program. The result survey from the third party which was not valid enough and the number of surveyed communities not yet approved forced all Healthcare workers need to survey in the field. It is the additional workload for them. They must survey outside working hours, at night, even on holidays. This additional workload is not followed by an appropriate reward. Another problem is that human resources (Primary Healthcare employees) does not understand the operational definition of the questionnaire due to the lack of socialization and the difference between the operational definition of the questionnaire and the operational definition of PIS PK (from the Ministry of Health). The socialization conducted to the surveyor candidates did not meet the expectations, with the result that the surveyor candidates do not understanding the operational definition of the questionnaire. Besides that, human resources (Primary Healthcare employees) are less satisfied with the usefulness of the data due to the differences between the operational definitions of the PIS PK and the operational definition of the Healthcare program, which makes the data from the PIS PK survey less utilized. It was also found the problem of the lack of human resources (Primary Healthcare employees) who was able to operate the PIS-PK data processing system, so this made the PIS-PK data input process run less optimally. This affected the quality of data produced.

Keywords: human resources, healthy indonesia program, family approach, PIS-PK

ANALYSING CONTRIBUTION OF ORGANIZATIONAL STRUCTURE IN QUALITY IMPROVEMENT PROCESS: A CASE STUDY IN INDONESIA'S PUBLIC HEALTH CENTERS

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Introduction: Changes in policy, environmental conditions, and community behavior is the trigger to the increasingly strong demands for quality improvement in the health sector. Many factors affect the success of an organization in implementing quality improvement efforts. One of the variables that has not been revealed by researchers is the role of organizational structure. Therefore, this research is intended to explore more deeply the role of organizational structure in the process of improving the quality of services in government-owned community health centers in Indonesia.

Method: The study was conducted at 40 government-owned Public Health Centers in Surabaya-Indonesia selected by simple random sampling, involving 190 midwives as respondents. A linear regression test was conducted to look for the effect of organizational structure on the implementation of organizational learning, staff commitment, and the continuing implementation of quality improvement efforts.

Results and Discussions: The study obtained a description that most public health centers in Indonesia have a mechanistic type organizational structure characterized by clarity and regularity of the division of tasks, job descriptions, and detailed procedures. This turned out to have an impact on organizing a better organizational learning process, such as increased staff involvement in the learning process, the formation of structured teams, better scheduling of learning processes, and the creation of more systematic learning efforts. This in turn has an impact on the staff commitments, so that the implementation of quality improvement efforts runs on an ongoing basis.

Conclusion: Thus, it can be concluded that the organizational structure has an important role in the process of improving the quality of services at the public health center, so it is recommended that community health centers in Indonesia be encouraged to better organize their organizational structures to lead to the ideal mechanistic type.

Keywords: organizational structure, quality improvement, public health center

FREQUENCY OF INPATIENT UTILIZATION AMONG ELDERLY (Multilevel Analysis Under National Health Insurance In Indonesia)

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Introduction: Several empirical studies have shown that implementing health insurance can increase participants' utilization of health services. Therefore, aim of this study is to assess the frequency of utilization of National Health Insurance participants (among the elderly) to inpatient services.

Method: The study design was cross sectional, using secondary data (membership and claim data) obtained from the Health Social Security Administering Agency in 2014. Population are elderly JKN participants in Indonesia who utilize inpatient services. Samples amounted to 661,947 people, are elderly aged 60 to 90 years with complete claim data. Data analysis using univariate analysis and multilevel poisson regression analysis.

Results and Discussions: Based on this study shown the elderly who use inpatient services an average of 1.36 times during the year (at least 1 time, a maximum of 25 times). Elderly type PBI participants (Beneficiary Contribution) seen less frequency of hospitalization (mean 1.23) than other participants. The average frequency of utilization is higher in the elderly who have characteristics: younger age (mean 1.38), male (mean 1.37), living in urban areas (mean 1.42), living in Sumatra (mean 1.41), gatekeeper origin from non-public (mean 1.43). Variables that contribute to the frequency of inpatient utilization are type of hospital class (individual level), and hospital availability factors (district level). Elderly who live in areas with a higher hospital availability index tend to have a higher frequency of inpatient utilization.

Conclusions: Recommendations for local governments to equalize hospital construction in each region, and need to improve the types and quality of services in hospitals according to their class.

Keywords: elderly, frequency, hospitalization, inpatient, utilization