

ISSN 2580-9296 (ONLINE)



www.icash.inschool.id



Abstracts of International Conference on Applied Science and Health No. 04, 2019

“Science for mankind: Translating research results into policy and practices”

Faculty of Graduate Studies Mahidol University
Nakhon Pathom, 23rd - 24th July 2019



International Conference on Applied Science and Health
No. 04, 2019

The 4th International Conference on Applied Science and Health (ICASH 4)

23-24 July 2019

Faculty of Graduate Studies, Mahidol University, Nakhon Pathom, Thailand

Organizers:

**Yayasan Aliansi Cendekiawan Indonesia Thailand (Indonesian Scholars' Alliance)
Permitha Simpul Salaya**

Conference Chair	:	Dyah Anantalia Widyastari
Executive Secretary	:	Doni Marisi Sinaga
IT & Website	:	Canggih Puspo Wibowo
Layout, Abstract & Proceedings	:	Hafizh Muhammad Noor Dimas Sondang Irawan Tiara Fatmarizka Dwina Gustia Diary I Gusti Ngurah Edi Putra Maretalinia Marina Ayu Viniriani Monita Destiwi Galih Albarra Shidiq Ivana Aprilia Pratiwi
Logistics	:	Made Dian Shanti Kusuma Ni Wayan Kesari Dharmapatni
Necessity and Equipment	:	Mahendrawan Nugraha Aji Pratama Ary Norsaputra Andi Pancanugraha Febrian Hendra Kurniawan
Event	:	Pamuko Aditya Rahman Wahyu Manggala Putra Rifqi Abdul Fattah Puput Kusumawardani Moehas Ricky Alexander Samosir
Multimedia & Documentation	:	Andang Adi Fitria Hananto I Gusti Ngurah Agastya Taufik Eko Susilo
Moderator	:	Pichpisith P. Vejvisithsakul Donny Nauphar Ariestyia Indah Permata Sari Reny Pratiwi Hnin Oo Mon Dr. Nyein Chan

Co-hosts:

Poltekkes Kemenkes Semarang;
Faculty of Medicine of Universitas Swadaya Gunung Jati;
Poltekkes Kemenkes Yogyakarta;
Poltekkes Kemenkes Palangka Raya;
Ikatan Ahli Kesehatan Masyarakat Indonesia.

Scientific Commitees:

Prof. Andrew J Macnab	Dr. Linda Suwarni, SKM, M.Kes.
Assist. Prof. Suhartini Ismail, S.Kp., MNS., Ph.D.	Dr. Nasrul Hidayah, S.TP., M.P., M.Sc.
dr. Ahmad Fariz Malvi Zamzam Zein, Sp.P.D., M.M.	Dr. Nyein Chan
Dr. Yuni Kusmiyati, MPH.	Dr.sc.hum. Budi Aji, SKM, M.Sc.,
dr. Adang Bachtiar, MPH., D.Sc.	Zuraidah Nasution, S.T.P., MSc., Ph.D.
Murallitharan Munisamy, MD, MSc FRSPH, Ph.D.	Monthira Suntiparpluacha, Ph.D.
Gara Samara Brajadenta, MD, MMed.Sc, Ph.D.	Dyah Anantalia Widyastari, MPH, Ph.D (Cand.)
Adi Nugroho, Ph.D.	Pichpisith P. Vejvisithsakul, MD., Ph.D. (Cand.)
Nara Khamkhom, Ph.D.	Doni Marisi Sinaga, M.Sc., Ph.D (Cand.)
Bayu Anggileo Pramesona, S.Kep., MMR, Ph.D	Joko Gunawan Ph.D. (Cand.)
Franxisca Mariani, M.P, Ph.D. (Cand.)	Junaida Astina, S.Gz, Ph.D. (Cand.)
Sirada Kasornsri, MNS., Ph.D. (Cand.)	Rian Adi Pamungkas, Ns., MNS., Dr. PH (Cand.)
Ary Norsaputra, S.Pd., M.Sc., Ph.D. (Cand.)	Richa Kusumawati, Ph.D. (Cand.)
Donny Nauphar, B.Sc., M.Si.Med., Ph.D (Cand.)	dr. Sunna Hutagalung, MS., Ph.D. (Cand.)
dr. I Gusti Ngurah Pramesemara, M.Biomed, Sp.And	Desri Astuti, SKM, MA.
Galih Albarra Shidiq, M.Ed.	Dhesi Ari Astuti, S.Si.T., M.Kes.
Titinan Pewnail, MA.	Dimas Sondang Irawan, SSt.Ft, M.Fis.
Niken Meilani, S.SiT, S.Pd., M.Kes.	Agnescia Clarissa Sera, S.Gz., MFoodScTech.
Ns. Made Dian Shanti Kusuma, S.Kep.	Ariestyia Indah Permata Sari, MD., M.Sc.,
Ns. Ni Wayan Kesari Dharmapatni, S.Kep.	M.Si.Med Hilmi Zadah Faidlullah, SST.FT., M.Sc.
Rani Sasmita, S.Si., M.P., M.Sc.	I Gusti Ngurah Edi Putra, SKM, MA.
Reny Pratiwi, M.Si	Juneman Abraham, S.Psi., M.Si., Dr.
Shinta Kristianti, S.Si.T., M.Kes.	Lintang Dian Saraswati, SKM, M.Epid.
Tiar M Pratamawati, MD., MM., M.Biomed.	Yeni Tri Herwanto SKM, M.Kes.
Wahyu Manggala Putra, SKM, MPH.M.	

Publisher:

Yayasan Aliansi Cendekiawan Indonesia Thailand (Indonesian Scholars' Alliance)

Journal Partner:

Global Health Management Journal (GHMJ)

© 2019 [Yayasan Aliansi Cendekiawan Indonesia Thailand \(Indonesian Scholars' Alliance\)](#)

All rights reserved. Abstracting is permitted with credit to the source.

Full Papers in the Oral Session are available online at

[Proceedings of the International Conference on Applied Science and Health \(No. 4, 2018\).](#)

Refers to [Google Scholar](#) for citation.

ISSN: 2579-4434



9 772579 443014



ICASH

Research for Better Society

PREFACE

Health and well-being is a fundamental right of every human being. Governments of every nation are responsible to provide facilities and supporting policies to enable people accessing health-related information and healthcare services. As students, we, [Yayasan Aliansi Cendekiawan Indonesia Thailand](#) or internationally known as Indonesian Scholars' Alliance (InSchooL), together with [Indonesian Students Association in Thailand \(Permitha Salaya\)](#) responses by providing the medium to deliver the updated sciences in health as we organize the [4th International Conference on Applied Science and Health](#). We invite experts, practitioners, professionals and students in Asia and other regions to share their expertises, experiences, and views in the field of applied science and health.

We received more than 300 papers that have undergone rigorous peer review before finally accepted and published in our conference. About 150 papers from at least five participating countries (Indonesia, Thailand, Myanmar, Iran, and Malaysia) will be presented in oral session, while 90 papers will be presented as poster.

The [4th ICASH](#) would not be possible without the supports of the following organizations and individuals: 1) Faculty of Graduate Studies Mahidol University for providing the venue and full supports for the past four years; 2) Faculty of Medicine Universitas Swadaya Gunung Jati Cirebon Indonesia; 3) Politeknik Kesehatan Kemenkes Semarang; 4) Politeknik Kesehatan Kemenkes Palangkaraya; and 5) Politeknik Kesehatan Kemenkes Yogyakarta as our co-host. The Keynote Speakers, for their willingness to share the valuable knowledge and extensive experiences in the field of health and applied science, of which will be of great benefits for all participants. To all International Scientific Committees for assisting the Organizing Committee to review papers submitted to the conference; and last but not least, to the authors who have shared their valuable works to all of us.

We wish you a joyful and fruitful conference, but above all, we wish you the greatest benefit of this 2-days conference.

Dyah Anantalia Widyastari
Conference Chair



ICASH

Research for Better Society

PREFACE

Hi Fellas, Swadikrub and Selamat Datang,

The 4th International International Conference on Applied Science and Health (ICASH 2019) is the masterpiece from Indonesian Students who are accompanied by the Indonesian Scholars' Alliance (INSCHOOL), and this year is the 3rd year participation of Indonesian Students' Association of Mahidol in Thailand (known as Permitha/PPI Salaya Mahidol-Thailand) as the co-organizer of ICASH; today conference, follows with the previous three editions (February 2017, September 2017 and August 2018).

As the organization, PERMITHA Salaya-Mahidol is one of the biggest community of Indonesian student in Thailand and as a part of PERMITHA Thailand. Besides, this organization has creative members who dedicate toward their responsibility in PERMITHA Salaya-Mahidol. It has been proved since the earlier phase of ICASH. PERMITHA Salaya-Mahidol always supports the event because we know that this event is the unusual activity that could impact for Indonesian Student in Mahidol University. As the Chief of PERMITHA Salaya-Mahidol, I really believe that PERMITHA's members are people who could give a positive impact on their contribution to this event. Then, ICASH gives the outstanding experience for PERMITHA's members to organize the international program. This chance would drill the soft-skill in leadership, academic, and respond professionally. The skills are beneficial for the members while they work after study.

On this occasion, I would like to say thanks for the ICASH team who has already cooperated with PERMITHA Salaya-Mahidol to produce the educational event. This conference would be a valuable experience for PERMITHA due to the positive impact that could be attained by members. Besides, I also appreciate highly for all members who have total dedication for supporting this event. We hope the experience would teach more than achieved on occasion.

Taufik Eko Susilo

Chief of Indonesian Students' Association Alliance of Mahidol
(PPI/PERMITHA Salaya-Mahidol)



TABLE OF CONTENTS

TITLE PAGE	i
PREFACE	ii
TABLE OF CONTENTS	v
CONFERENCE PROGRAM	xviii

KEYNOTE SPEECHES

KS01	Andrew J. Macnab	SCIENCE FOR MANKIND: TRANSLATING RESEARCH RESULTS INTO POLICY AND PRACTICES	1
KS02	Kanlaya Prapainop	SYNTHESIS OF NANOMATERIALS AND ITS BIOMEDICAL APPLICATIONS FOR HUMAN'S HEALTH	8
KS03	Ahmad Fariz Malvi Zamzam Zein	THE IMPLEMENTATION OF INTEGRATED-APPROACH ON GERD (I-AGE) PROJECT IN FISHERMEN AS A MODEL OF INTERRELATION OF RESEARCH-BASED HEALTHCARE AND TEACHING	10
KS04	Yuni Kusmiyati	THE EFFECT OF ASPHYXIA ON THE QUALITY OF LIFE OF CHILDREN AGED 2-4	12
KS05	Dhini	THE ROLE OF HEALTH POLYTECHNIC OF PALANGKA RAYA AS A LEADING CENTER FOR ADOLESCENT HEALTH IN CENTRAL KALIMANTAN	13
KS06	Suharyo Hadisaputro	NEGLECTED TROPICAL DISEASES : FOCUS IN INDONESIA	15
KS07	Adang Bachtiar	TRANSLATING FUTURE MILLENNIAL: STRUCTURING DISRUPTIVE HEALTHCARE	17
KS08	Catur Setiya Sulistiyana	BRINGING MEDICAL GENETICS TO THE PUBLIC: THE CHALLENGES FOR INDONESIAN MEDICAL FACULTIES	19

ORAL PRESENTATIONS

A001	Ronald Mukisa, Doni Marisi Sinaga, Andrew Macnab	AN EVALUATION OF VIDEO MATERIALS WITH A HEALTHRELATED MESSAGE AVAILABLE IN INDONESIA	21
A002	Mahendrawan Nugraha Aji Pratama, Poschanan Niramitchainont	FACTORS AFFECTING WORK PERFORMANCE OF FAMILY PLANNING FIELD WORKERS OF NATIONAL AGENCY OF POPULATION AND FAMILY PLANNING (BKKBN) IN EAST JAVA PROVINCE, INDONESIA	22
A003	Sanjeev Bijukchhe, Ronny Isnuwardana, Sasvimol Rattanasiri, Kunlawat Thadanipon, Ammarin Thakkinstian	ASSOCIATION AMONG STATIN, TELOMERE LENGTH AND CARDIOVASCULAR DISEASES	23
A004	Andi Pancanugraha, Arisara Leksansern	FACTORS AFFECTING GRADE 11 STUDENTS' ACHIEVEMENT IN LEARNING POPULATION EDUCATION IN SCHOOL POPULATION AWARENESS, INDONESIA	24
A005	Fatimah, Arisara Leksansern	FAMILY PLANNING FIELD WORKERS' EXPECTATIONS AND PERCEPTIONS ON SERVICE QUALITY OF TRAINING AND EDUCATION AT NATIONAL POPULATION AND FAMILY PLANNING BOARD IN PROVINCE OF CENTRAL SULAWESI, INDONESIA	25



A006	Nitchamon Rakkapao, Pradabduang Kiattisaksiri, Ronnapoom Samakkekarom	KNOWLEDGE, ATTITUDES, AND HIV/AIDS RISK BEHAVIORS OF MYANMAR MIGRANT WORKERS IN THAILAND	26
A007	Yadanar Aung, Yin Thet Nu Oo, Nanda Myo Aung Wan, Bo Bo Nyan, Aung Pyae Phyo, Le Le Win	ALCOHOL CONSUMPTION AND CURRENT SITUATION OF DRINKING RISK LEVEL AMONG UNIVERSITY STUDENTS IN MANDALAY REGION	27
A008	I Gusti Ngunrah Edi Putra	ADDRESSING GENDER INEQUALITY TO IMPROVE MATERNAL HEALTH IN INDONESIA: A NARRATIVE LITERATURE REVIEW	28
A010	Pepi Arifiyani, Hikmah Fitriani, Rachmanda Haryo Wibisono	THE EFFECTIVENESS OF LEMON JUICE (<i>Citrus limon</i>) TOWARD PYRAMIDAL NEURON CELLS OF MALE WHITE MICE'S CEREBRAL CORTEX THAT EXPOSED BY MONOSODIUM GLUTAMATE (MSG)	29
A011	Mauli Ardhiya, Ignatius Hapsoro, Shofa Nur Fauzah	THE RELATIONSHIP BETWEEN KNOWLEDGE, ATTITUDE, BREASTFEEDING PRACTICE AND INTAKE OF COMPLEMENTARY FEEDING WITH NUTRITIONAL STATUS OF CHILDREN AGED 6-24 MONTHS AT KESUNEAN HEALTH CENTER CIREBON	30
A012	Adhy Nugroho, Risnandya Primanagara, Pahmi Budiman Sahputra Basyir	ANTIDIABETIC EFFECT OF COMBINED <i>Muntingia calabura</i> L. LEAF EXTRACT AND METFORMIN ON RATS	31
A013	Akbar Dito Erlangga, Tissa Octavira Permatasari, Ouve Rahadiani Permana	THE CORRELATION BETWEEN ANTENATAL CARE, PARITY AND MATERNAL AGE AMONG PREGNANT WOMEN WITH ANTEPARTUM HEMORRHAGE INCIDENCE AT GONDOSARI COMMUNITY HEALTH CENTER, KUDUS	32
A015	Ayatullah Ouve Rahadiani Permana, Uswatun Khasanah	THE CORRELATION OF KNOWLEDGE AND ATTITUDE ON DRUGS WITH DRUG ABUSE BEHAVIOR AMONG ADOLESCENTS IN KESUNEAN HEALTH CENTRE, CIREBON CITY	33
A016	Dela Destiani Aji, Ruri Eka Maryam Mulyaningsih, Ahmad Fariz Malvi Zamzam Zein	THE EFFECT OF LEMON JUICE (<i>Citrus limon</i>) IN LIVER HISTOPATHOLOGIC APPEARANCE OF MALE MICE (<i>Mus musculus</i> L.) EXPOSED BY MONOSODIUM GLUTAMATE (MSG)	34
A017	Dewi Sukmawati, Witri Pratiwi, Ahmad Fariz Malvi	THE COMPARISON OF DIARRHEA INCIDENCE BETWEEN 0-6 MONTHS OLD INFANTS WHO WERE EXCLUSIVELY BREASTFED, NON-EXCLUSIVELY BREASTFED AND GIVEN MILK FORMULA IN CIREBON CITY, INDONESIA	35
A018	Dhini Oktaviani, Amanah Amanah, Eni Suhaeni, Risnandya Primanagara	CALCULATING COLONY OF <i>Candida</i> spp. AMONG CHILDREN WITH INTELLECTUAL DISABILITY IN CIREBON	36
A019	Dina Alfiana, Witri Pratiwi, Muhammad Edial Sanif	THE CORRELATION BETWEEN EDUCATION, WORK, AND MATERNAL KNOWLEDGE ON COMPLEMENTARY FEEDING WITH 6-24 MONTHS' NUTRITIONAL STATUS	37
A020	Hagi Wibawa, Hikmah Fitriani, Rama Samara B, Irwan Meidi L	INFLUENCE OF GIVING BREADFRUIT (<i>Artocarpus altilis</i> (Park) Fosberg.) LEAVES EXTRACT TO DECREASE URIC ACID LEVELS IN WISTARS RATS HYPERURICEMIC	38



A021	Hanif Haidaryafi, Muhammad Edial Sanif, Ignatius Hapsoro Wirandoko	DESCRIPTIVE STUDY OF DIETARY PATTERNS AND PHYSICAL ACTIVITIES AMONG PATIENTS WITH TYPE 2 DIABETESMELLITUS IN COMMUNITY HEALTH CENTER OF KESUNEAN, CIREBON	39
A022	I Gusti Ayu Novita Afsari, Hikmah Fitriani, Triono Adi Suroso	THE EFFECTIVENESS OF LEMON JUICE (<i>Citrus limon</i>) ON PURKINJE CELL OF WHITE MALE MICE (<i>Mus musculus</i>) CEREBELLAR CORTEX THAT EXPOSED BY MONOSODIUM GLUTAMATE (MSG)	40
A023	Ika Rena Pratiwi, Ricardi W Alibasjah, Catur Setiya Sulistiyana	THE CORRELATION BETWEEN MOTHER'S KNOWLEDGE, EDUCATION AND FAMILY INCOME WITH NUTRITIONAL STATUS OF TODDLER (AGED 1-6 YEARS)	41
A024	Jibril Ali Syariati Assajad, Muhammad Edial Sanif, Risnandya Primanagara	ANTIDIABETIC EFFECT OF COMBINED CINNAMOMUM CASSIA EXTRACT AND METFORMIN IN RATS	42
A025	Juharny Eka Sackbani, Thysa Thysmelia, Defa Nur Rahamtunnisaa	THE CORRELATION OF ANXIETY IN DEALING WITH OBJECTIVE STUDENT ORAL CASE ANALYSIS (OSOCA) EXAMINATION ON THE CASE OF FUNCTIONAL DYSPEPSIA IN THE FIRST SEMESTER MEDICAL STUDENTS	43
A027	Mellyna Iriyanti Sujana, Amanah Amanah, Handoyo Moch Yusuf	COMPARISON OF SOIL-TRANSMITTED HELMINTH EGG INFESTATION IN FECES OF INTELLECTUAL DISABILITY (ID) CHILDREN WITH NON-ID CHILDREN	44
A028	Muhammad Irsyad Baihaqi	THE EFFECT OF ORALLY ADMINISTERED CATFISH (<i>Clarias gariepinus</i>) SKIN AND MEAT ON EPITHELIALIZATION THICKNESS AND COLLAGEN DENSITY IN INCISION WOUND OF WISTAR RAT (<i>Rattus norvegicus</i>)	45
A029	Nita Safitri, Uswatun Khasanah, Ruri Eka Maryam Mulyaningsih	CORRELATION BETWEEN ANXIETY LEVEL AND SELF DIRECTED LEARNING READINESS (SDLR) WITH STUDENT PERFORMANCE IN PROBLEM BASED LEARNING (PBL)	46
A030	Nurul Amaliah Lestari, Uswatun Hasanah, Ricardi Witjaksono Alibasjah	THE EFFECT OF SELF DIRECTED LEARNING READINESS (SDLR) AND LEARNING APPROACH TOWARD MEDICAL STUDENT ACHIEVEMENT	47
A031	Rike Rizqilah, Dadan Ramadhan Apriyanto, Ruri Eka Maryam Mulyaningsih	INHIBITORY OF SOURSOP LEAVES (<i>Annona muricata</i> L.) EXTRACT AGAINST <i>Malassezia furfur</i> GROWTH	48
A032	Sayyidah Vina Syauqia, A. Fariz Malvi Zamzam Zein, Tiar M. Pratamawati, Donny Nauphar	EFFECTIVENESS OF ORALLY USE TILAPIA (<i>Oreochromis niloticus</i>) ON WOUND LENGTH AND FIBROBLAST DENSITY ON INCISION WOUND OF WISTAR RAT (<i>Rattus norvegicus</i>)	49
A033	Sri Utami Fauziah, Risnandya Primanagara, Tiar M. Pratamawati, Donny Nauphar	EFFECTIVENESS OF ORALLY USE CATFISH (<i>Clarias gariepinus</i>) SKIN AND MEAT ON WOUND LENGTH AND FIBROBLAST DENSITY IN INCISION WOUND OF WISTAR RAT (<i>Rattus norvegicus</i>)	50
A034	Syahidatun Hayati, Amanah Amanah, Rose Indriyati	INHIBITORY TEST OF DAYAK ONION (<i>Eleutherine Bulbosa</i> Mill.) ESSENTIAL OIL TO THE GROWTH OF MALASSEZIA FURFUR	51
A035	Tessa Swesty Islamia, Atik Sutisna, Hikmah Fitriani	THE INHIBITION TEST OF FLAVONOID AND TANNIN IN NONI FRUIT (<i>Morinda citrifolia</i> Linn) COMPARED TO CEFTRIAXONE TOWARDS <i>Escherichia coli</i> IN VITRO	52
A036	Tiara Syamsa Noor Wildania, Shofa Nur Fauzah, Dini Sapardini Warsodoedi	IMPACT OF OBESITY AND DIABETES MELLITUS TYPE II WITH INCIDENCE OF HYPERTENSION IN AGE 45-65 YEARS OLD	53



A037	Tridaya Putri Handayani, Muhammad Duddy Satrianugraha Witri Pratiwi, Ruri Eka Maryam Mulyaningsih	THE CORRELATION OF EDUCATION AND SOCIAL ECONOMIC LEVELS WITH ANTIBIOTIC SELF-MEDICATION IN THE COMMUNITY OF CIREBON	54
A038	Maya Erisna, Merisa Restiani Arma, Sri Sumarni, Hilma Triana	DOES BEETROOT JUICE LOWER BLOOD PRESSURE?: A SYSTEMATIC REVIEW	55
A039	Danai Bawornkiattikul, Nantaporn Phatrabuddha	ASSESSMENT OF RESIDENCE SANITATION CONDITION AND LIFE QUALITY OF CONSTRUCTION WORKERS, CHONBURI PROVINCE, THAILAND	56
A040	Merisa Restiani Arma, Maya Erisna, Sri Sumarni	POTENTIAL OF HERBAL PLANTS AS ANTIHYPERTENSIVE THERAPY: A REVIEW	57
A042	Afifah K. Vardhani	<i>Caesalpinia sappan</i> L: REVIEW ARTICLE	58
A043	Syafrida Ainur, Melyana Nurul Widyawati	INDONESIAN HERBS WITH ANTIFERTILITY EFFECTS ON MEN: A SYSTEMATIC REVIEW	59
A044	Dona Amelia, Ade Srywahyuni, Liza Merianti, Mita Yulia	CONTROLLING DIET EXPERIENCE OF DIABETIC PATIENTS IN BUKITTINGGI, INDONESIA	60
A045	Ade Srywahyuni, Dona Amelia, Liza Merianti, Senci Napeli Wulandari	USING SCORECARD TO ANALYSE RISK FACTORS OF STROKE IN WEST SUMATERA INDOENSIA	61
A047	Liza Merianti, Dona Amelia, Ade Srywayuni, Sari Afma Yuliane	STORIES OF MOTHERS WITH INTELLECTUAL DISABILITY CHILDREN IN WEST SUMATERA, INDONESIA	62
A048	Anak Agung Istri Agung Sri Stuti Damayanti, Ida Bagus Nyoman Maharjana, Atik Nurwahyuni	ANTIMICROBIAL STEWARDSHIP STRATEGY TO REDUCE LENGTH OF STAY AND COST OF ANTIBIOTIC CONSUMPTION: A SYSTEMATIC REVIEW	63
A050	Anastasia Yekti Heningnurani, Dumilah Ayuningtyas	PATIENTS SAFETY CULTURE DEVELOPMENT IN JAMBI PUBLIC HOSPITAL	64
A051	Angesti Drea Habsari, Jaslis Ilyas	FACTORS AFFECTING MEDICAL DOCTOR TURNOVER IN THE HOSPITAL: A SYSTEMATIC REVIEW	65
A052	Aida Amalia Nur Ramadhian, Sheyla Najwatul Maula, Ulfah Musdalifah	THE REBORN OF EXCLUSIVE BREASTFEEDING METHOD: ANTENATAL BREAST EXPRESSION (ABE): A LITERATURE REVIEW	66
A053	Aisyah, Triana Sri Hardjanti	THE EFFECT OF MUSIC THERAPY FOR PREGNANT WOMEN : A LITERATURE REVIEW	67
A054	Andriana, Sri Sumarni	THE EFFECTIVENESS OF ACUPUNCTURE ON WOMEN WITH POLYCYSTIC OVARY SYNDROME: SYSTEMATIC LITERATURE REVIEW	68
A056	Beniqna Maharani Besmaya, Runjati Runjati, Ari Suwondo, Siti Nurharisah	IS THE MULTIPLE MICRONUTRIENTS BETTER TO REDUCE ANEMIA IN PREGNANCY COMPARED TO IRON- FOLATE ACID SUPPLEMENTATION? A SYSTEMATIC REVIEW	69
A057	Diah Ulfa Hidayati, Runjati Runjati	ANTIMICROBIAL ACTIVITY OF KERSEN (<i>Muntingia calabura</i> L.) LEAVES: A SYSTEMATIC REVIEW	70
A058	Dian Aprilia Damayanti, Mardiyono Mardiyono	UPDATE: METABOLIC DISORDERS OF PREECLAMPSIA A REVIEW	71
A059	Dina Anggraini, Triana Sri Hardjanti	EFFECTS OF HEGU POINT SUPPRESSOR (LI 4) AND BIRTH BALL TECHNIQUE ON LABOR PAIN: A REVIEW	72
A060	Diyas Windarena, Siti Nurharisah, Benigna Maharani, Mardiyono Mardiyono	SYSTEMATIC REVIEW METABOLIC DISRUPTION IN GESTATIONAL HYPERTENSION DISORDER	73



A061	Dwi Apriani, Ulfah Musdalifah, Tecky Afifah Santy Amartha	COMPLEMENTARY AND ALTERNATIVE MEDICINE (CAM) IN THE FIRST STAGE OF LABOR PAIN: A LITERATURE REVIEW	74
A062	Dwi Hesti Diah Citrawati, Listyaning Eko Martanti	COMPLEMENTARY THERAPIES FOR LABOR INDUCTION AND THEIR LEGALITY IN INDONESIA: A LITERATURE REVIEW	75
A063	Ertitawai Siregar, Triana Sri Hardjanti	NON PHARMACOLOGICAL TREATMENTS FOR BREAST ENGORGEMENT: A SYSTEMATIC REVIEW	76
A064	Fatatu Malikhah, Melyana Nurul Widyawati, Sutarmi, Siti Kistimbar, Taryatmo Kusmini	THE EFFECT OF LOVING TOUCH STIMULATION THERAPY FOR INFANTS' WEIGHT GAIN	77
A065	Ida Ayu Putu Dewi Adnya Suwari, Melyana Nurul Widyawati, Ni Putu Dian Ayu Anggraeni	ACUPRESSURE AND YOGA COMBINATION CAN REDUCE ANXIETY DURING PREGNANCY: A SYSTEMATIC REVIEW	78
A066	Ismi Puji Astuti, Suharyo Hadisaputro	EFFECTIVENESS OF PRENATAL YOGA ON PREGNANCY ANXIETY AND DEPRESSION: A SYSTEMATIC REVIEW	79
A067	Kiki Yusika, Sri Rahayu	DETERMINANT OF EARLY MENARCHE AT MUARA MEGANG ELEMENTARY SCHOOL SOUTHERN SUMATRA	80
A068	Lia Arian Apriani, Ida Ariyanti	EFFECTIVENESS OF BROWN SEAWEED (<i>Sargassum</i> sp.) AS NATURAL ANTIOXIDANT FOR ENDOTHELIAL CELL PROTECTION IN PREECLAMPSIA: A LITERATURE REVIEW	81
A069	Nahdiyah Karimah, Nur Khafidhoh, Triana Sri Hardjanti, Riska Ismawati Hakim	THE PERIOD OF PERINEAL WOUND HEALING IN POSTPARTUM MOTHERS BETWEEN THE DECOCTION WATER TREATMENTS OF BINAHONG LEAVES WITH RED BETEL LEAVES	82
A070	Noviyati Rahardjo Putri, Melyana Nurul Widyawati	COMPREHENSIVE THERAPY FOR POLYCYSTIC OVARY SYNDROME: KEY POINTS TO IMPROVE QUALITY OF LIFE	83
A071	Nur Anisa, Sri Wahyuni, Sri Rahayu, Aulia Choirunnisa, Listyaning Eko Martanti	EFFECT OF MORINGA LEAVES AND VITAMIN C CAPSULE COMBINATIONS IN INCREASEING HEMOGLOBIN LEVELS OF YOUNG WOMEN WITH ANEMIA	84
A072	Raffiky Pinandia Sustamy, Rizqi D Pratiwi, Sri Wahyuni	USING THE SMARTPHONE APPLICATION FOR PREGNANCY CARE: A LITERATURE REVIEW	85
A073	Reni Hariyanti, Sri Sumarni	WHAT HAPPENS IF THE BROMELAIN IN <i>Ananas comosus</i> L. Merr. GIVEN TO PEOPLE LIVING WITH HIV/AIDS (PLWHA) ? : A REVIEW	86
A074	Riska Ismawati Hakim, Nahdiyah Karimah, Putri M Saptyani, Sri Wahyuni M	FOOT REFLEXOLOGY FOR WOMEN AND FETAL WELLBEING IN LABOR : A REVIEW	87
A075	Rizkie Aulia Amini, Sri Rahayu	THE INFLUENCE OF GALBLADDER ACUPRESSURE POINT 21 (JIAN JING) AND STOMACH 18 (RU GEN) IN INCREASEING BREASTMILK PRODUCTION	88
A077	Stevani Basuki Putri, Elisa Ulfiana	FACTORS AFFECTING IRON AND FOLIC ACID CONSUMPTION AMONG ADOLESCENTS: A LITERATURE REVIEW	89
A078	Wahyu Diana Rahmawati, Listyaning Eko M, Ribkha Itha I, Nuril N	SELF-INTERNALIZATION FACTORS FOR CONDOM USE AMONG COMMERCIAL SEX WORKERS (CSW) IN PREVENTING HIV / AIDS TRANSMISSION	90
A080	Zubaeda, Nur Khafidhoh	COULD HERBAL MEDICINE BE A COMPLEMENTARY THERAPY IN LEUCORRHEA TREATMENT AND CARE?	91



A081	Niken Meilani, Nanik Setiyawati	ATTITUDES TOWARDS HIV AIDS AMONG MIDWIFERY STUDENTS IN YOGYAKARTA	92
A082	Hesty Widyasih, Yani Widyastuti	SCRAPBOOKING RELATED TO PERSONAL HYGIENE HABITS AND PREVENTION BEHAVIOR OF PATHOLOGICAL LEUCORRHOEA	93
A083	Yuni Kusmiyati, Siti Tyastuti, Yulita Rizky, Nirmala Sari	RISK FACTORS FOR IRON DEFICIENCY ANEMIA IN INFANTS AGED 6 MONTHS IN TEGAL REJO PUBLIC HEALTH CENTER, YOGYAKARTA, INDONESIA	94
A084	Elis Fitria, Ester Inung Sylvia, Gad Datak	HEALTH LITERACY AND DIABETES RISK FACTORS SCORE	95
A085	Ester Inung Sylvia, Gad Datak, Visia Didin Ardiyani	DETERMINANTS OF PRE-DIABETES ON TEENAGERS IN PALANGKA RAYA CITY	96
A087	Riyanti, Legawati	KARUNGUT MUSIC REDUCES ANXIETY OF ADOLESCENT PREGNANT MOTHER	97
A088	Ariani Pongoh, Sunaeni	APPLICATION INDEX CARD MATCH TO IMPROVE MIDWIVES' KNOWLEDGE ON HIGH-RISK PREGNANCY DETECTION USING SCORE CARD POEDJI ROCHYATI IN SORONG, PAPUA	98
A089	Teguh Supriyono, Agnescia Clarissa Sera	MICROENCAPSULATION OF KARAMUNTING LEAF EXTRACT (<i>Rhodomyrtus tomentosa</i>) AS AN INSTANT DRINK POWDER	99
A090	Duly Apika Sari, Poschanan Niramichainont	GUIDELINES USING POTENTIAL STAKEHOLDERS IN ENHANCING REPRODUCTIVE HEALTH AND IDEAL MARRIAGE AGE EDUCATION IN NATIONAL POPULATION AND FAMILY PLANNING BOARD'S YOUTH INFORMATION AND COUNSELLING CENTER	100
A091	Abiyu Naufal Susanto, Maryana, Titik Fajriyati Nur Khasanah, Francilia Deastuti, Raden Roro Brilianti Chrisnajyantie, Anggita Nurlitasari	DENGUE HEMORRHAGIC FEVER (DHF) EDUCATIVE GAME TO IMPROVE KNOWLEDGE AND SKILL OF ELEMENTARY SCHOOL CHILDREN IN DHF PREVENTION	101
A092	Suci Muqodimatul Jannah	THE RELATIONSHIP BETWEEN AGE, GENDER, AND BODY MASS INDEX TO THE PREVALENCE OF FLATFOOT IN PRIMARY SCHOOL CHILDREN IN LAWEYAN	102
A093	Izzah Dienillah Saragih, Tri Niswati Utami, Fitriani Pramita Gurning	PREVALENCE OF SKIN DISEASES IN THE COASTAL AREA OF TELUK NIBUNG NORTH SUMATRA	103
A094	Arismen, Amal Chalik Sjaaf	THE BUSINESS STRATEGIC PLAN FOR RSD KOLONEL ABUNDJANI BANGKO YEAR 2019 – 2023	104
A095	Asdawati, Adang Bachtiar	PERCEPTION OF WOMEN OF REPRODUCTIVE AGE TOWARDS LONG-ACTING CONTRACEPTIVE (LAC) COUNSELING OF FAMILY PLANNING COUNSELORS: A QUALITATIVE STUDY	105
A096	Cici Lia Nopita, Mardiaty Nadjib	ANALYSIS OF CST (CASE, SUPPORT AND TREATMENT) AT H ABDUL MANAP HOSPITAL IN JAMBI CITY IN 2018	106
A097	Eka Ginanjar, Amal C Sjaaf	THE IMPLEMENTATION OF CODE STEMI PROGRAM TO AFFECT THE QUALITY OF HEALTHCARE IN ST-ELEVATION MYOCARDIAL INFARCTION (STEMI) PATIENTS: A SYSTEMATIC LITERATURE REVIEW	107
A099	Handi Wirawan, Prastuti Soewondo	THE STANDARDS OF MEDICAL CARE WITH SELF CARE FOR DIABETES MELLITUS OUTPATIENTS	108



A100	Hanifah Iskhia Dilla, Wachyu Sulistiadi	PATIENT SAFETY CULTURE IMPROVEMENT TO ENHANCE THE QUALITY OF HEALTHCARE IN HARAPAN BUNDA HOSPITAL JAKARTA	109
A101	I Nyoman Gede Bayu Wiratama Suwedia, Atik Nurwahyuni	REDUCED LENGTH OF STAY IN CHILDREN WITH DIARRHEA FOLLOWING IMPLEMENTATION OF CLINICAL PATHWAY	110
A102	I Nyoman Gede Semarajana, Prastuti Soewondo	FACTORS RELATED TO PENDING CLAIM IN INDONESIAN NATIONAL HEALTH INSURANCE (JKN): A SYSTEMATIC REVIEW	111
A103	Ida Bagus Nyoman Maharjana, Adik Wibowo	FACTORS RELATED TO THE REDUCTION OF MEDICATION DISCREPANCIES AT TRANSITION OF CARE: A SYSTEMATIC REVIEW	112
A104	Maria Wahyu Daruki, Atik Nurwahyuni, Adang Bachtiar	EFFECTIVENESS OF CAESAREAN SECTION CLINICAL PATHWAY TOWARDS HOSPITAL LENGTH OF STAY: A SYSTEMATIC REVIEW	113
A105	Meike Magnasofa, Mardiaty Najib	THE LEADERSHIP ROLE FOR A SUCCESSFUL CHANGE MANAGEMENT: A SYSTEMATIC LITERATURE REVIEW	114
A106	Mia Mariani	THE CHILD'S DENTAL TREATMENT WITH SEDATION: REASONS, DENTAL TREATMENT NEEDS, MEDICAL CONDITION, AND HISTORY OF DENTAL ANXIETY AMONG CHILDREN IN YARSI DENTAL HOSPITAL	115
A107	Milya Timeida, Kurnia Sari	HOSPITAL EMPLOYEES' PERCEPTION OF MARKETING STRATEGY AT H. ABDUL MANAP GENERAL HOSPITAL IN JAMBI CITY	116
A108	Prisca Gisella, Adang Bachtiar	A DEMOGRAPHIC PICTURE ON MEDICAL CHECK UP PATIENTS AND ITS ASSOCIATION WITH PATIENT SATISFACTION LEVEL AT X HOSPITAL IN WEST JAKARTA FOR THE PERIOD OF OCTOBER 2018- FEBRUARY 2019	117
A109	Retno Dewi Sulistyowati, Adang Bachtiar	HOW EFFECTIVE IS SIMULATION-BASED EDUCATION FOR IMPROVING THE NURSES' KNOWLEDGE ON PEDIATRIC IV INSERTION: A SYNTHESIS FROM AWAL BROS HOSPITAL GROUP IN INDONESIA	118
A110	Rizky Anggraita Damayanti, Adang Bachtiar	OUTCOME OF PATIENT SAFETY CULTURE USING THE HOSPITAL SURVEY ON PATIENT SAFETY CULTURE (HSOPSC) IN ASIA: A SYSTEMATIC REVIEW WITH META ANALYSIS	119
A111	Rovels Agber Maywell Iroth, Anhari Achadi	THE IMPACT OF CLINICAL PATHWAY TO EFFECTIVENESS OF PATIENT CARE IN CURRENT MEDICAL PRACTICE IN HOSPITAL: A LITERATURE REVIEW	120
A112	Siti Lestarinigrum, Adang Bachtiar	PATIENT SATISFACTION ON NATIONAL HEALTH INSURANCE (JKN) SERVICES	121
A113	Sukma Marthia Rahani, Amal Chalik Sjaaf	THE EFFECT OF ANTIEMETIC FOR GALACTOGOGUE	122
A114	Tantri Puspa Ditya, Adang Bachtiar	PROVIDING ADEQUATE INFORMATION FOR OUTPATIENTS IN RSUPN DR. CIPTO MANGUNKUSUMO JAKARTA NOVEMBER 2018 - FEBRUARY 2019	123
A115	Tetriyadi, Atik Nurwahyuni	THE VARIATION OF CAESARIAN SECTION COSTS IN INDONESIAN HOSPITALS: A NARRATIVE REVIEW	124



A116	Umi Fikria Arif, Ede Surya Darmawan	THE USE OF SOCIAL MEDIA AS HOSPITAL MARKETING TOOL	125
A117	Suherni, Anita Rahmawati, Ilma Aptaningrum	THE INFLUENCE OF SMARTPHONE APPLICATION ON THE HYGIENE BEHAVIOR OF EXTERNAL REPRODUCTIVE ORGAN OF FEMALE STUDENTS IN 1st SEYEGAN SLEMAN JUNIOR HIGH SCHOOL	126
A119	Maria Magdalena Purba	NURSING IMPLEMENTATION IN CONTROL LONG COGNITIVE AND PSYCHOMOTOR CAPABILITIES OF HALLUCINATORY PATIENTS IN KALAWA ATEI MENTAL HOSPITAL OF PALANGKA RAYA	127
A122	Masrinto Pongrambu, Pateeya Kitcharoen	NEEDS ASSESSMENT OF LEADERSHIP TRAINING & DEVELOPMENT PROGRAM: A CASE STUDY AT INDONESIA'S NATIONAL AGENCY OF POPULATION AND FAMILY PLANNING (BKKBN)	128
A123	Utut Septi Asrianti, Arisara Leksansern	LEADERSHIP SKILL AND MANAGEMENT PROCESS IN CENTER OF INFORMATION AND COUNSELING (CIC) AT UPPER SECONDARY SCHOOLS IN SOUTH JAKARTA CITY, INDONESIA	129
A124	Silvia Tarigan, Adang Bachtiar	A REVIEW OF THE BALANCED SCORECARD IMPLEMENTATION IN HEALTH SECTOR ORGANIZATION	130
A125	Mutiara Ayu Muthiatulsalimah, Sri Rahayu	DETERMINANT OF CHRONIC ENERGY MALNUTRITION OF PREGNANT WOMEN AT KARANG BANDAR LAMPUNG HEALTH CENTER	131
A126	Muhammad Firdaus, Amal Chalik Sjaaf	IMPROVING PATIENT SAFETY AND HOSPITAL SERVICE QUALITY THROUGH ELECTRONIC MEDICAL RECORD: A SYSTEMATIC REVIEW	132
A127	Ni Putu Indra Dewi, Dumilah Ayuningtyas	ANALYSIS OF MARKETING STRATEGIES ON MEDICAL TOURISM PROGRAMS IN DEVELOPING COUNTRIES HOSPITALS IN ASIA	133
A128	Anindita Santoso, Prastuti Soewondo	UNIVERSAL PRECAUTION OF SECTIO CAESARIA IN SURGICAL ROOM	134
A130	Nasser Mehrdadi, Farshad Golbabaee Kootenaee	EFFECT OF ULTRASOUND TECHNOLOGY ON WASTEWATER TREATMENT EMPHASIZING ON HEALTH ISSUE	135
A131	Aye Thi Khaing, Sirinya Phulkerd, Amara Soonthornhdhada, Ayesandar Mon, Pojjana Hunchangsith	FACTORS INFLUENCING DELIVERY BY SKILLED BIRTH ATTENDANTS AND POSTNATAL HEALTH CHECK AMONG MOTHER IN HLAING-THARYAR TOWNSHIP, MYANMAR	136
A132	Fauziah Nasution, Azhari Akmal Tarigan, Putra Apriadi Siregar, Watni Marpaung	PERCEPTION OF PICTORIAL HEALTH WARNING ON CIGARETTE PACKS, SMOKING BEHAVIOUR AND WANT TO QUIT SMOKING AMONG STUDENTS UNDERGRADUATE OF STATE ISLAMIC UNIVERSITY OF NORTH SUMATERA, INDONESIA	137
POSTER PRESENTATION			
B003	Indri Hafida, Linda Arum Sari, Mohammad Afan Setyadi, Muhammad Zaini Rahman, Alfredo Juan Pratama	MYDIETDAY: A WEB-BASED ALTERNATIVE SOLUTION FOR EFFECTIVE DIET	138
B005	Annisa Septy Nurcahyani, Diyah Fatmasari	PRENATAL YOGA TO REDUCE PREGNANT WOMEN STRESS: A LITERATUR REVIEW	139



B006	Candra Tyas Nur Fitria, Triana Sri Hardjanti	COMPLEMENTARY AND NON-PHARMACOLOGY THERAPY FOR LABOR PAIN	140
B007	Diksi Laksmitta Dewi, Sri Rahayu	EXCLUSIVE BREASTFEEDING FOR STUNTING PREVENTION : A LITERATURE REVIEW	141
B008	Dina Hanifa, Sri Rahayu	HERBAL LACTAGOGUE FOR BREASTFEEDING MOTHERS IN INDONESIA: A LITERATURE REVIEW	142
B009	Endah Purwanti Handayani, Ririn Indriani, Friska Oktaviana, Ida Ariyanti	HEALING TOUCH AS COMPLEMENTERY TREATMENT IN MIDWIFERY ASPECT : A REVIEW	143
B010	Enny Trisanti, Runjati, Tecky Afifah Santy Amarta	MASSAGE FOR REDUCING POST-CESAREAN PAIN: A SYSTEMATIC REVIEW	144
B011	Entan Afriannisyah, Agustin Setianingsih	COMBINATION OF ACUPRESSURE WITH YOGA (ACUYOGA) TO REDUCE BACK PAIN IN PREGNANT WOMEN	145
B012	Erlin Chusnia Putri, Dyah Fatmasari	EFFECTIVENESS OF FENUGREEK SEEDS (<i>Trigonella foenumgraecum</i>) ON BREAST MILK PRODUCTION: A LITERATURE REVIEW	146
B013	Ester Dolla, Dyah Fatmasari	MASSAGE FOR WEIGHT GAIN AND REDUCING TIME OF HOSPITALIZATION ON PRETERM BABY IN NICU ROOM: A LITERATURE REVIEW	147
B014	Ewith Widya Mareta, Triana Sri Hardjanti	THE EFFECT OF OXYTOCIN AND PAPAYA EXTRACT ON PROLACTIN HORMONE LEVELS AND BREAST MILK VOLUME IN NORMAL POST PARTUM MOTHERS	148
B015	Friska Oktaviana, Ririn Indriani, Endah P Handayani, Ida Ariyanti	PARENTS' ROLE IN TODDLERS FEEDING FOR OBESITY PREVENTION	149
B016	Handayani, Susanti Pratamaningtyas	SOYBEAN, PALM DATE, AND KATUK LEAVES CONSUMPTION TO INCREASE BREASTMILK PRODUCTION	150
B017	Hasriyanti Romadhoni F, Soeharyo Hadisaputro, Dhias Widiastuti	HERBS FOR EPISIOTOMY WOUND HEALING	151
B018	Herlina, Sri Sumarni, Rr Sri Endang Pujiastuti	ACUPRESSURE FOR REDUCING BACK PAIN IN TRIMESTER III PREGNANT WOMEN	152
B019	Ica Maulina Rifkiyatul Islami, Meisha Julian Anggraini, Rizky Amelia	BIOMARKERS ARE THE BEST SCREENING TO PREDICT PREECLAMPSIA: A REVIEW	153
B020	Isnu Kurnia Nugrahaeni, Mardiyono Mardiyono	PREGNANCY MASSAGE THERAPY TO REDUCE DEPRESSION: A SYSTEMATIC REVIEW	154
B021	Kintan Anissa, Kun Aristanti Susiloretni	CHILDBIRTH ATTENDED BY LABOR DOULA: A LITERATURE REVIEW	155
B022	Maratus Sholichah Fitriah Hajar Kusnianto, Listiyaning Eko Martanti	MOBILE APPLICATION FOR EARLY DETECTION OF BREAST CANCER: A REVIEW	156
B023	Meisha Julian Angraini, Ica Maulina, Rizky Amelia	IS UTERINE MASSAGE EFFECTIVE TO PREVENT POSTPARTUM HEMORRHAGE? A REVIEW	156



B024	Miftah Nurlaily El Akhlaq, Mardiyono Mardiyono	THERAPY FOR PREECLAMPSIA SHOULD BE COMBINED FOR MAXIMUM TREATMENT: A SYSTEMATIC REVIEW	157
B025	Oknalita Simbolon, Yovialist Radjatadoe, Mardiono Mardiono, Cristinawati B\R Sihaloho	OVERSEAS EARLY BREASTFEEDING INITIATION PROGRAM: A SYSTEMATIC REVIEW	158
B026	Paulina Pida, Listyaning Eko Martanti	EFFECTIVENESS OF BABY MASSAGE IN REDUCING BILIRUBIN LEVELS AMONG INFANTS WITH HYPERBILIRUBINEMIA: A LITERATURE REVIEW	159
B027	Putri Maretyara Saptiyani, Riska Ismawati Hakim, Umaroh Umaroh, Ari Suwondo	AROMATHERAPY FOR NAUSEA AND VOMITING IN PREGNANCY: A LITERATURE REVIEW	160
B028	Ririn Indriani, Endah P Handayani, Friska Oktaviana, Ida Ariyanti	EFFECTIVENESS OF MASSAGE FOR BABY'S GROWTH AND STUNTING DETECTION : A LITERATURE RIVIEW	161
B029	Martha Jessica, Adang Bachtiar	CORRELATION BETWEEN LEVEL OF KNOWLEDGE AND PRACTICING BREAKFAST AMONG UNDERGRADUATE STUDENTS IN FACULTY OF PUBLIC HEALTH UNIVERSITY OF INDONESIA	162
B030	Melissa Paulina Pasaribu, Adang Bachtiar	THE LEVEL OF KNOWLEDGE ON 1000 THOUSAND FIRST DAYS OF LIFE AMONG HEALTH SCIENCE STUDENTS IN UNIVERSITY OF INDONESIA	163
B031	Shandy Wigya Mahanani, Isnu, Umaroh	THE EFFECT OF HYPNOTHERAPY FOR DECREASING ANXIETY IN PREGNANCY AND CHILDBIRTH	164
B032	Sherly Dwi Gustiya, Ngadiyono	DETERMINANTS OF STUNTING AMONG UNDER- FIVE IN INDONESIA: A LITERATURE REVIEW	165
B033	Siti Nurharisah, Sri W Mamat, Diyas Windarena, Beniqna M Besmaya	THE EFFECTIVENESS OF MINDFULNESS THERAPY FOR ANXIETY AND DEPRESSION IN PREGNANT WOMEN: A REVIEW	166
B034	Widyaning Dara Utami, Suharyo Hadisaputro, Tecky Afifah Santy Amaritha	INCREASING ADOLESCENTS' KNOWLEDGE AND ATTITUDES TOWARDS MENSTRUAL HYGIENE MANAGEMENT: A LITERATURE REVIEW	167
B035	Yeni Nurlita Seftia Dewi, Diyah Fatmasari	YOGA AS AN EFFECTIVE WAY TO REDUCE LOW BACK PAIN IN THIRD TRIMESTER PREGNANT WOMEN	168
B036	Yulia Febrina, Runjati	E E-PARTOGRAPH ADDIE MODEL AS LABOR LEARNING MODULE FOR MIDWIVES	169
B037	Yuliani Tangko, Asrawaty, Ida Ariyanti	THE EFFECTIVENESS OF PERINEAL MASSAGE TO PERINEAL RUPTURE IN PRIMIGRAVIDA WITH NORMAL BIRTH	170
B038	Zahrotun Nisa' Setyoputri, Mardiyono Mardiyono	EFFECTIVENESS OF MASSAGE FOR WEIGHT GAIN OF PREMATURE INFANTS: A REVIEW	171
B039	Irmastuti Lukitaning Alam	EFFECT OF OXYTOCIN MASSAGE WITH LAVENDER AROMATHERAPY INCREASING BREAST MILK PRODUCTION	172
B040	Rizqi D Pratiwi, Raffiky P Sustamy, Sri Wahyuni	PROGRESSIVE MUSCLE RELAXATION IN PREGNANCY: A LITERATURE REVIEW	173
B041	Natalia, Riyanti	STRATEGY INNOVATION IN PREVENTING TEENAGE PREGNANCY THROUGH BIDAN LEWU AND FAMILY ROLE	174
B042	Rofian Widyanita, Sri Rahayu	FACTORS AFFECTING EARLY BREASTFEEDING INITIATION: A LITERATURE REVIEW	175



B043	Anyta Ekaningsih, Adang Bachtiar	HEALTH PROMOTION PRACTITIONER'S ROLES IN BEHAVIOR CHANGE COMMUNICATION STRATEGY: A SYSTEMATIC REVIEW	176
B044	Athaya Aurelia, Adang Bachtiar	ANALYSIS OF DURATION IN USING GADGETS ON EYE REFRACTION ERRORS AMONG UNDERGRADUATE STUDENTS IN FACULTY OF PUBLIC HEALTH UNIVERSITY OF INDONESIA (UI)	177
B053	Fatimah Azzakiyah, Tjut Sutjighassani, Yani Triyani	HIGH HUMIDITY AND LOW TEMPERATURE AS THE RISK FACTORS OF SCABIES IN ISLAMIC BOARDING SCHOOLS (PESANTREN) IN BANDUNG	178
B055	Nora Adila, Nila Susanti	PROVIDING SUPPLEMENTARY FOOD TO IMPROVE NUTRITION STATUS IN UNDERNOURISHED TODDLER: CASE STUDY IN KALAMPANGAN	179
B056	Zuhrina Aidha, Reni Agustina Harahap, Delfriana Ayu	CHARACTERISTICS OF HYPERTENSION PATIENTS IN COASTAL DISTRICT PERCUT SEI TUAN	180
B057	Cristinawati BR Haloho, Melyana Nurul Widyawati, Oknalita Simbolon, Yovialist Putri R	IDENTIFYING AUTISM SPECTRUM DISORDER (ASD) AND THE TREATMENTS TO REDUCE ITS SEVERITY: A SYSTEMATIC REVIEW	181
B058	Hilma Triana, Sunarto, Sri Sumarni, Maya Erisna	WHAT HAPPENED IF WOMAN IN REPRODUCTION AGE ARE GIVEN BETA VULGARIS? A REVIEW	182
B060	Nur Djanah, Suherni, Ida Dwi Utari, Dela Ratna Sari	ADOLESCENT PREGNANCY WITH INCIDENCE OF ABORTION	183
B062	Corry Ocvita Sari, Ratih Kumorojati	THE DESCRIPTION OF TODDLERS FEEDING IN CLINICS NGEEMPLAK I REGENCY OF SLEMAN YOGYAKARTA	184
B064	Asrawaty, Endri Astuti, Dhita Aulia	EFFECTIVENESS OF MASSAGE FOR INFANTS AND TODDLERS WITH ACUTE RESPIRATORY INFECTION: A LITERATURE REVIEW	185
B067	Febi Ratnasari, Isna Wanufika, Epa Yohanti	FACTORS AFFECTING THE NUTRITIONAL DEFICIENCY AND POOR NUTRITION OCCURENCES IN TODDLERS AT THE KUTABUMI COMMUNITY HEALTH CENTER, TANGERANG, INDONESIA	186
B068	Varisa Nowangi Irianti, Nur Khafidhoh	BENEFITS OF UMBILICAL CORD MILKING VERSUS DELAYED CORD CLAMPING OUTCOMES IN PRETERM INFANTS: A LITERATURE REVIEW	187
B069	Yulvira Febriani, Mardiyono	USE OF HERBAL PLANTS FOR ACUTE RESPIRATORY INFECTION (ARI) IN TODDLERS: LITERATURE REVIEW	188
B070	Siti Nadirah, Nur Imtihana Makmur, Runjati, Tecky Afifah Santy Amarthia	COMPARING THE EFFECTIVENESS GYM DISMENOURE AND WARM WATER COMPRESS IN REDUCING MENSTRUAL PAIN	189
B072	Sepsiana Puspitasari, Yuni Kusmiyati, Yuliasiti Eka Purnamaningrum	THE CORRELATION BETWEEN MENSTRUAL CHARACTERISTICS AND ANEMIA PREVALENC IN MIDWIFERY STUDENTS OF YOGYAKARTA	190
B073	Eliska, Nurhayati, Petti Siti Fatimah	COASTAL NUTRITION STATUS OF THE COUNTRY REVIEWED FROM SOCIAL CULTURE AND ISLAMIC PERSPECTIVE	191
ORAL PRESENTATION WITHOUT PUBLICATION			
C001	Ivana Aprilia Pratiwi, Varongsiri Kemsawasd, Thunnalin Winuprasith	STORAGE STABILITY OF HIGH FIBER SNACK BAR	192



C002	Thi Bich Hien Tran, Obnithi Noppa, Anunyporn Phungsom, Kanlaya Prapainop	SYNTHESIS AND CHARACTERIZATION OF PROTEIN CONJUGATED CADMIUM TELLURIDE QUANTUM DOTS FOR BREAST CANCER TARGETING	193
C003	Silfia Nuzulus Sa'idah, Yunaenah Setiawati, Ahmad Wibisono	RELATIONSHIP OF KNOWLEDGE AND ATTITUDE OF ANEMIA WITH ORAL IRON CONSUMPTION AMONG ADOLESCENT	194
C004	Ayu Pratiwi, Desi Sintia	QUALITATIVE STUDY : THE EXPERIENCE OF SWITCHING FROM SMOKING TOBACCO CIGARETTE TO SMOKING ELECTRONIC CIGARETTE IN KARAWACI DISTRICT IN 2018	195
C005	Alif Hamzah, Uswatun Khasanah, Dini Norviatin	CORRELATION OF AGE, SEX, HEREDITY SMOKING HABBIT, OBESITY, AND SALT CONSUMPTION TOWARDS HYPERTENSION LEVEL IN CIREBON, INDONESIA	196
C007	Marwan Hermawan, Amanah Amanah, Nurbaiti Nurbaiti	IN VITRO INHIBITORY ACTIVITY OF DAYAK ONION (<i>Eleutherine bulbosa</i> Mill.) ESSENTIAL OIL AGAINST <i>Klebsiella pneumoniae</i>	197
C008	Agnescia Clarissa Sera	CRITICS ON POLICY OF SOY-BASED INFANT FORMULA IN INDONESIA: COMPARING TO AUSTRALIA AND NEW ZEALAND FOOD STANDARDS	198
C009	Ida Ariyanti, Nur Khafidoh, Sri Rahayu	EFFECTS OF EXPERIENCE SHARING ON ANXIETY AMONG WOMEN WITH LOW BIRTH WEIGHT BABIES	199
C010	Nur Khafidhoh, Ida Ariyanti, Triana Sri Hardjanti	EFFECTS OF SOY MILK ADMINISTRATION ON BLOOD PRESSURE, LDL LEVEL AND PROTEIN IN URINE OF WOMEN WITH GESTATIONAL HYPERTENSION	200
C011	Sri Rahayu, Umaroh	EFFECTS OF ROLLING MASSAGE AND ST-18 ACUPRESSURE ON BREAST MILK PRODUCTION AND REDUCED FUNDAL HEIGHT	201
C012	Rezwana Sultana, Mohammad Hayatun Nabi, Shaikh Abdus Salam, Mohammad Delwer Hossain Hawlader	ASSOCIATION BETWEEN BODY COMPOSITION AND HYPERTENSION AMONG ADULT POPULATION OF BANGLADESH	202
C013	Restiana Kristin, Dhini	TODDLER ACCEPTANCE ON VEGETABLE SIDE DISH MODIFICATION AT CINTA DAYCARE PALANGKA RAYA	203
C014	Heni Puji Wahyuningsih, Diana Oktaviastuti Darmasetya	FACTORS AFFECTING EXCLUSIVE BREASTFEEDING IN RURAL AREA OF YOGYAKARTA	204
C015	Yuliasti Eka Purnamaningrum, Margono, Regita Cita Puspitasari, Riska Rahmawati, Risma Fitria Dianasari, Izzudien Sobri	CHARACTERISTICS OF STUNTING IN TODDLERS AGED 12-59 MONTHS IN KULON PROGO, YOGYAKARTA, INDONESIA	205
C016	Munica Rita Hernayanti, Yuliasti Eka Purnamaningrum, Dwiana Estiwidani, Denny Iswara	ASSOCIATION OF HEALTH WORKER ROLES AND FAMILY SUPPORT TO ANXIETY AND BREASTMILK SUFFICIENCY IN MOTHERS WITH LOW BIRTH WEIGHT INFANTS	206
C017	Zannatul Arafat, Gias Uddin Ahsan, Mohammad Delwer Hossain Hawlader, Mohammad Hayatun Nabi	RISK FACTORS OF LATERAL EPICONDYLITIS AMONG THE PATIENTS ATTENDED IN A SPECIALIZED HOSPITAL IN BANGLADESH: A HOSPITAL BASED CASE-CONTROL STUDY	207
C018	Silvia Intan Suri, Hema Malini	SMOKERS' EXPERIENCES IN QUITTING SMOKING HABIT	208

**POSTER TALK PRESENTATION**

PT01	Asti Arieayani, Dumilah Ayuningtyas	LEAN METHOD IMPLEMENTATION TO REDUCE OVERCROWDING IN THE EMERGENCY DEPARTMENT: A SYSTEMATIC REVIEW	209
PT02	Dewi Citra Puspita, Adang Bachtiar	STRATEGY FORMULATION FOR HOSPITALS IN REMOTE AREAS: CASE STUDY OF X HOSPITAL, WEST BORNEO PROVINCE, INDONESIA, 2019	210
PT03	Elfry Syahril, Amal Chalik Sjaff	THE QUALITY ANALYSIS OF OUTPATIENT SERVICES SATISFACTION AT KH DAUD ARIF HOSPITAL, KUALA TUNGKAL, TANJUNG JABUNG BARAT REGENCY, JAMBI PROVINCE, INDONESIA	211
PT04	Elsa Primasari, Wahyu Sulistiadi	HALAL FOOD SUPPLY MOTIVATION FOR MUSLIM PATIENTS	212
PT05	Ida Ayu Wirastuti, IB Nyoman Maharjana, Prastuti Soewondo	PREVENTION AND MANAGEMENT FOR THE COMPLICATION OF THIRD MOLAR SURGERY: A SYSTEMATIC REVIEW	213
PT06	Irin Kirana, Wahyu Sulistiadi, and Tjen Dravinne Winata	SPECIAL DENTAL CASE SHEET AS A MEDICAL AND FORENSIC COMMUNICATION TOOL	214
PT07	Leti Ratna Kusumawati, Kombes dr. Munir. Sp.R, Adang Bachtiar	ANALYSIS EFFECTIVITAS RELATING TO THE WAITING TIME IN CT SCANNING PROCEDURE BASED ON THE MALCOM BALDRIDGE APPROACH ON OUTPATIENT TREATMENT PATIENTS AT THE RADIOLOGY INSTALLATION OF THE CENTRAL POLICE HOSPITAL R. SAID SUKANTO	215
PT08	Mardiah, Sulistiadi Wahyu	THE ROLE OF HOSPITAL MARKETING MIX TO THE SELECTION OF THE HOSPITAL CONSUMER	216
PT09	Melanie Vandauli, Adang Bachtiar	THE ANALYSIS OF HIV COUNSELING AND TESTING IN TUBERCULOSIS PATIENT AT A PRIVATE HOSPITAL IN SOUTH JAKARTA, INDONESIA	217
PT10	Ni Putu Ayu Prima Dewi, Adang Bachtiar	TRAVEL MEDICINE MANAGEMENT FOR THE ANTICIPATION OF INFECTIOUS DISEASES IN SOUTHEAST ASIA: A SYSTEMATIC REVIEW	218
PT11	Ni Putu Deni Adi, Yaslis Ilyas	SYSTEMATIC REVIEW: DETERMINANTS OF PATIENT SATISFACTION WITH HOSPITAL SERVICES	219
PT12	Petra Ade Paramita Lestari, Adang Bachtiar	FACTORS AFFECTING THE COMPLIANCE AND UTILISATION OF ANTENATAL CARE (ANC) IN BOTH HIGH INCOME COUNTRIES AND LOW- MIDDLE INCOME COUNTRIES: A SYSTEMATIC REVIEW	220
PT13	Purbosari, Ede Surya Darmawan	TURNAROUND TIME OF DIAGNOSTIC LABORATORY RESULTS AS A QUALITY IMPROVEMENT TO PATIENT SATISFACTION: A SYSTEMATIC LITERATURE REVIEW	221
PT14	Yuliani, Atik Nurwahyuni	THE ACCURACY OF DIAGNOSIS, PROCEDURES AND CODING COMPLETENESS AND THEIR CORRELATION WITH INA-CBG CLAIMS	222
PT15	Nurul Qosimah Batubara, Adik Wibowo	THE INFLUENCE OF MARKETING MIX TO PATIENT SATISFACTION IN HOSPITALS: NARRATIVE REVIEW	223
PT16	Essi Guspaneza, Evi Martha	DETERMINANT OF UNWANTED PREGNANCY IN INDONESIA 2017 (A SECONDARY DATA ANALYSIS OF 2017 IDHS)	224

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



ICASH

Research for Better Society

CONFERENCE PROGRAM

Tuesday, July 23 (Pre-Conference)

07:00	-	Preparation		
08:30	-	09:00	Registration	
09:00	-	09:05	Opening	MC: Dania Moehas & Ricky Alexander
09:05	-	09:10	ICASH: Research for Better Society	Indonesian Scholars' Alliance
09:10	-	09:15	Introducing Permitha Simpul Salaya	Taufik Eko Susilo
09:15	-	09:25	MoU Signing	Indonesian Scholars' Alliance and co-host
09:25	-	09:30	Letter of Intent	Indonesian Scholars' Alliance and the 2020 co-host (Poltekkes Ternate and Poltekkes Sorong)
09:30	-	09:35	Photo Session	
09:35	-	09:50	Coffee Break	
09:50	-	10:00	Opening Panel Session	Moderator: Pichpisith P. Vejvisithsakul MD., Ph.D. (Cand)
10:00	-	10:20	Universitas Swadaya Gunung Jati <i>"The implementation of integrated-approach on gerd (i-age) project in fishermen as a model of interrelation of research-based healthcare and teaching"</i>	dr. Ahmad Fariz Malvi Zamzam Zein, Sp.PD., M.M.
10:20	-	10:40	Poltekkes Kemenkes Semarang <i>"Neglected tropical diseases: focus in Indonesia"</i>	Prof. Dr. dr. Suharyo Hadisaputro, Sp.PD-KPTI
10:40	-	11:00	Poltekkes Kemenkes Palangka Raya <i>"The role of Health Polytechnic of Palangka Raya as a leading center for adolescent health in Central Kalimantan"</i>	Dhini, M.Kes.
11:00	-	11:20	Poltekkes Kemenkes Yogyakarta <i>"The effect of asphyxia on the quality of life of children aged 2-4"</i>	Dr. Yuni Kusmiyati, SST., MPH.
11:20	-	12:20	Discussion	
12:20	-	13:30	Lunch Break	
13:30	-	16:30	Oral Presentation	
16:00	-	17:00	Poster Presentation Assessment Day 1	

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



CONFERENCE PROGRAM

Wednesday, July 24 (Main Conference)

07:00	-	Preparation	
08:30	-	08:45	Registration
08:45	-	08:55	Opening Ceremony (preparation) MC: Dania Moehas & Ricky Alexander
08:55	-	09:00	Opening Ceremony starts MC: Dania Moehas & Ricky Alexander
09:00	-	09:10	Organizing Committee report: Chairperson of the 4 th ICASH Dyah Anantalia Widyastari, Ph.D. (Cand.)
09:10	-	09:20	Welcoming Speech: Ambassador of Republic of Indonesia for Royal Kingdom of Thailand Prof. Dr. Mustari, M.Pd.
09:20	-	09:30	Welcoming and Opening Speech: Dean of Faculty of Graduate Studies, Mahidol University Prof. Dr. Patcharee Lertrit, M.D.
09:30	-	09:35	Appreciation Speech 1: Representative from Poltekkes Semarang Edy Susanto, S.H., S.Si., M.Kes.
09:35	-	09:40	Appreciation Speech 2: Representative from Poltekkes Palangka Raya Dhini, M.Kes.
09:40	-	09:45	Appreciation Speech 3: Representative from Poltekkes Yogyakarta Joko Susilo, SKM, M.Kes.
09:45	-	09:50	Appreciation Speech 4: Representative from Universitas Swadaya Gunung Jati dr. Ahmad Fariz Malvi Zamzam Zein, Sp.PD., M.M.
09:50	-	10:00	Photo Session and Token Appreciation
10:00	-	12:00	Keynote Speeches Session Moderator: Pichpisith P. Vejvisithsakul MD., Ph.D. (Cand)
10:00	-	10:20	<i>"Synthesis of nanomaterials and its biomedical applications for human's health"</i> Asst. Prof. Kanlaya Prapainop
10:20	-	10:40	<i>"Bridging the gap between clinicians and systems biologists: from network biology to translational biomedical research"</i> Asst. Prof. Natini Jinawath, MD, PHD, DIP. ABMGG (Clinical Cytogenetics)
10:40	-	11:00	<i>"Bringing medical genetics to the public: the challenges for Indonesian medical faculties"</i> dr. Catur Setiya Sulistiyana, M.Med.Ed
11:00	-	11:30	<i>"Science for the mankind: translating research results into policy and practices"</i> Prof. Andrew J. Macnab
11:30	-	12:00	Discussion

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



CONFERENCE PROGRAM

Wednesday, July 24 (Main Conference)

12:00	-	12:10	Wrap-up
12:10	-	12:15	Photo Session
12:15	-	13:00	Lunch Break
13:00	-	16:30	Oral Presentation
16:30	-	17:30	Poster Presentation Assessment 2
18:00	-	20:00	Networking dinner

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



CONFERENCE PROGRAM

TUESDAY, 23 JULY 2019					
	R.408	R.402	R.403		
	Health service and management : provider perspective	Health service and management : users' perspective	Poster Talk		
MODERATOR	<i>Dr. Nyein Chan</i>	<i>Hnin Oo Mon, MPH., Ph.D. (Cand.)</i>	<i>Donny Nauphar, M.Si.Med., Ph.D. (Cand.)</i>		
PANEL COORD	<i>Marina Ayu Viniriani</i>	<i>Dwina Gustia Diary</i>	<i>Monita Destiwi</i>		
13.30-15.00	ICASH 4_A051 Angesti Drea ICASH 4_A094 Arismen ICASH 4_A096 Cici Lia Nopita ICASH 4_A097 Eka Ginanjar ICASH 4_A100 Hanifah Iskhia Dilla ICASH 4_A103 Ida Bagus Nyoman Maharjana ICASH 4_A105 Meike Magnasofa ICASH 4_A107 Milya Timeida ICASH 4_A109 R. Dewi Sulistyowati	ICASH 4_A008 I Gusti Ngurah Edi Putra ICASH 4_A048 A.A.LA Sri Stuti Damayanti ICASH 4_A050 Anastasia Yekti Heningnurani ICASH 4_A095 Asdawati ICASH 4_A099 Handi Wirawan ICASH 4_A101 I Nyoman Gede Bayu Wiratama S. ICASH 4_A102 I Nyoman Gede Semarajana ICASH 4_A104 Maria Wahyu Daruki ICASH 4_A106 Mia Mariani	ICASH 4_PT01 Asti Arieyan ICASH 4_PT02 Dewi Citra Puspita ICASH 4_PT03 Elfry Syahri ICASH 4_PT04 Elsa Primasari ICASH 4_PT05 Ida Ayu Wirastuti ICASH 4_PT06 Irin Kirana ICASH 4_PT07 Leti Ratna Kusumawati ICASH 4_PT08 Mardiah		
15.00-15.15	<i>Coffee break</i>				
MODERATOR	<i>Dr. Nyein Chan</i>	<i>Hnin Oo Mon, MPH., Ph.D. (Cand.)</i>	<i>Donny Nauphar, M.Si.Med., Ph.D. (Cand.)</i>		
PANEL COORD	<i>Marina Ayu Viniriani</i>	<i>Dwina Gustia Diary</i>	<i>Monita Destiwi</i>		
15.15-16.30	ICASH 4_A110 Rizky Anggraita ICASH 4_A111 Rovels Agber Maywell Iroth ICASH 4_A113 Sukma Marthia Rahani ICASH 4_A116 Umi Fikria Arif ICASH 4_A124 Silvia Evalina Tarigan ICASH 4_A126 Muhammad Firdaus ICASH 4_A127 Ni Putu Indra Dewi	ICASH 4_A108 Prisca Gisella ICASH 4_A112 Siti Lestarinirnum ICASH 4_A114 Tantri Puspa Ditya ICASH 4_A115 Tetriadi ICASH 4_A128 Anindita Santoso	ICASH 4_PT09 Melanie Vandauli ICASH 4_PT10 Ni Putu Ayu Prima ICASH 4_PT11 Ni Putu Deni Adi ICASH 4_PT12 Petra Ade Paramitha Lestari ICASH 4_PT13 Purbosari ICASH 4_PT14 Yuliani ICASH 4_PT15 Nurul Qosimah ICASH 4_PT16 Essi Guspaneza		
16.00 - 17.00	<i>Poster presentation</i>				

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



CONFERENCE PROGRAM

WEDNESDAY, 24 JULY 2019					
	R.401	R.402	R.403	R.404	R.405
	Health education and promotion	Nutrition and health behavioral intervention	Health education, service and management	Maternal and child health	Applied science in health
MODERATOR	<i>Dyah Anantalia Widyastari, PhD (Cand.)</i>	<i>Donny Nauphar, M.Si.Med., Ph.D. (Cand.)</i>	<i>Dr. Nyein Chan</i>	<i>Ariestya Indah Permata Sari, MD., M.Sc., M.Si.Med.</i>	<i>Reny Pratiwi, Ph.D. (Cand.)</i>
PANEL COORD	<i>Dwina Gustia Diary</i>	<i>Monita Destivi</i>	<i>Marina Ayu Viniriani</i>	<i>Maretalinia</i>	<i>Ivana Aprilia Pratiwi</i>
13.00-15.00	ICASH 4_A067 Kiki Yusika ICASH 4_A072 Raffiky Pinandia S ICASH 4_A078 Wahyu Diana ICASH 4_A019 Dina Alfiana ICASH 4_A023 Ika Rena Pratiwi ICASH 4_A025 Juharny eka Sackbani ICASH 4_A029 Nita safitri ICASH 4_A030 Nurul Amaliah Lestari ICASH 4_A037 Tridaya Putri Handayani ICASH 4_A081 Niken Meliani ICASH 4_A082 Hesty Widyasih	ICASH 4_A056 Beniqna Maharani Besmaya ICASH 4_A077 Stevani Basuki Putri ICASH 4_A014 Alif hamzah ICASH 4_A015 Ayatullah ICASH 4_A021 Hanif Haidaryafi ICASH 4_A036 Tiara Syamsa Noor Wildania ICASH 4_A085 Ester Inung Sylvia ICASH 4_A006 Nitchamon Rakkapao ICASH 4_A007 Yadanan Aung ICASH 4_A044 Dona Amelia	ICASH 4_A084 Elis Fitria ICASH 4_A088 Ariani Pongoh ICASH 4_A119 Maria Magdalena Purba ICASH 4_A045 Ade Srywahyuni, ICASH 4_A090 Duly Apika Sari ICASH 4_A005 Fatimah ICASH 4_A122 Masrinto Pongrambu ICASH 4_A123 Utut Septi Asrianti ICASH 4_C012 M. Delwer Hossain Hawlader ICASH 4_C017 Mohammad Hayatun Nabi	ICASH 4_A052 Aida Amalia Nur Ramadhian ICASH 4_A053 Aisyah ICASH 4_A054 Andriana ICASH 4_A058 Dian Aprilia Damayanti ICASH 4_A059 Dina Anggraini ICASH 4_A060 Diyas Windarena ICASH 4_A061 Dwi Apriani ICASH 4_A062 Dwi Hesti Diah Citrawati ICASH 4_A063 Ertitawati Siregar ICASH 4_A064 Fatatu Maliklah ICASH 4_A065 Ida Ayu Putu Dewi ICASH 4_A066 Ismi Puji Astuti ICASH 4_A069 Nahdiyah Karimah ICASH 4_A070 Noviyati Rahardjo Putri	ICASH 4_A038 Maya Erisna ICASH 4_A040 Merisa Restiani Arma ICASH 4_A043 Syafrida Ainur ICASH 4_A057 Diah Ulfa ICASH 4_A068 Lia Arian ICASH 4_A071 Nur Anisa ICASH 4_A073 Reni Hariyanti ICASH 4_A010 Pepi Arifiyani ICASH 4_A012 Adhy Nugroho
15.00-15.15	Coffee break				
	Health education and promotion	Nutrition and health behavioral intervention	Applied science in health	Maternal and child health	Applied science in health
MODERATOR	<i>Dyah Anantalia Widyastari, PhD (Cand.)</i>	<i>Donny Nauphar, M.Si.Med., Ph.D. (Cand.)</i>	<i>Pichpisith P. Vejvisithsakul MD., Ph.D. (Cand.)</i>	<i>Dr. Nyein Chan</i>	<i>Reny Pratiwi, Ph.D. (Cand.)</i>
PANEL COORD	<i>Dwina Gustia Diary</i>	<i>Monita Destivi</i>	<i>Marina Ayu Viniriani</i>	<i>Maretalinia</i>	<i>Ivana Aprilia Pratiwi</i>
15.15-16.30	ICASH 4_A091 Abiyuu Naufal Susanto ICASH 4_A117 Ilma Aptaningrum ICASH 4_A001 Andrew Macnab ICASH 4_A039 Danai Bawornkiattikul ICASH 4_A047 Liza Merianti ICASH 4_A002 Mahendrawan N.A. Pratama ICASH 4_A004 Andi Pancanugraha ICASH 4_C004 Ayu Pratiwi ICASH 4_C005 Alif Hamzah ICASH 4_C018 Silvia Intan Suri ICASH 4_A132 Fauziah Nasution	ICASH 4_A092 Suci Muqodimatul Jannah ICASH 4_A093 Izzah Dienillah Saragih ICASH 4_A125 Mutiara Ayu Muthiatulsalmah ICASH 4_C001 Ivana Aprilia Pratiwi ICASH 4_C003 Silfia Nuzulus Sa'Idah ICASH 4_C008 Agnescia Clarissa Sera ICASH 4_C010 Nur Khafidhoh ICASH 4_C013 Dhini	ICASH 4_A033 Sri Utami Fauziah ICASH 4_A034 Syahidatun Hayati ICASH 4_A035 Tessa Swesty Islamia ICASH 4_A089 Teguh Supriyono, ICASH 4_A003 Sanjeev Bijukchhe ICASH 4_A042 Afifah Vardhani ICASH 4_A130 Nasser Mehrdadi ICASH 4_C002 Thi Bich Hien Tran ICASH 4_C007 Marwan Hermawan	ICASH 4_A074 Riska Ismawati Hakim ICASH 4_A075 Rizkie Aulia Amini ICASH 4_A080 Zubaeda ICASH 4_A011 Mauli Ardhiya ICASH 4_A013 Akbar Dito Erlangga ICASH 4_A017 Dewi Sukmawati ICASH 4_A083 Nirmala Sari ICASH 4_A087 Riyanti ICASH 4_A131 Aye Thi Khaing ICASH 4_C009 Ida Ariyanti, ICASH 4_C011 Sri Rahayu ICASH 4_C014 Diana Oktaviastuti Darmasety ICASH 4_C015 Regita Cita Puspitasari ICASH 4_C016 Denny Iswara	ICASH 4_A016 Dela Destiani Aji ICASH 4_A018 Dhini Oktaviani ICASH 4_A020 Haji Wibawa ICASH 4_A022 I Gusti Ayu Novita Afsari ICASH 4_A024 Jibril Ali Syariati Assajad ICASH 4_A026 Marwan Hermawan ICASH 4_A027 Mellyna Iriyanti Sujana ICASH 4_A028 Muhammad Irsyad Baihaqi ICASH 4_A031 Rike Rizqilah ICASH 4_A032 Sayyidah Vina Syaquqia
16.30-17.30	Poster presentation				
18.00-20.00	Networking dinner				

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



TUESDAY, 23 JULY 2019

Room 408
Moderator Dr. Nyein Chan
Panel coordinator Marina Ayu Viniriani

Panel Session 1		Health service and management : provider perspective	
1	ICASH 4_A051	Angesti Drea	FACTORS AFFECTING MEDICAL DOCTOR TURNOVER IN THE HOSPITAL: A SYSTEMATIC REVIEW
2	ICASH 4_A094	Arismen	THE BUSINESS STRATEGIC PLAN FOR RSD KOLONEL ABUNDJANI BANGKO YEAR 2019 - 2023
3	ICASH 4_A096	Cici Lia Nopita	ANALYSIS OF CST (CASE, SUPPORT AND TREATMENT) AT H ABDUL MANAP HOSPITAL IN JAMBI CITY IN 2018
4	ICASH 4_A097	Eka Ginanjar	THE IMPLEMENTATION OF CODE STEMI PROGRAM AFFECT THE QUALITY OF HEALTHCARE IN ST ELEVATION MYOCARDIAL INFACRTION (STEMI) PATIENTS
5	ICASH 4_A100	Hanifah Iskhia Dilla	A GOOD PATIENT SAFETY CULTURE IMPROVEMENT TO ENHANCE BETTER QUALITY OF HEALTHCARE IN HARAPAN BUNDA HOSPITAL
6	ICASH 4_A103	Ida Bagus Nyoman Maharjana	QUALITY IMPROVEMENT OF MEDICATION HISTORY RECORDS TO REDUCE MEDICATION DISCREPANCIES AT TRANSITION OF CARE : A SYSTEMATIC REVIEW
7	ICASH 4_A105	Meike Magnasofa	THE LEADERSHIP ROLE FOR A SUCCESSFUL CHANGE MANAGEMENT: A SYSTEMATIC LITERATURE REVIEW
8	ICASH 4_A107	Milya Timeida	PERCEPTION OF HOSPITAL STAFF TOWARD MARKETING MIX AT RSUD H.ABDUL MANAF JAMBI CITY
9	ICASH 4_A109	R. Dewi Sulistyowati	HOW EFFECTIVE IS SIMULATION-BASED EDUCATION FOR IMPROVING THE NURSES' KNOWLEDGE ON PEDIATRIC IV INSERTION: A SYNTHESIS FROM AWAL BROS HOSPITAL GROUP IN INDONESIA
Panel Session 2		Health service and management : provider perspective	
1	ICASH 4_A110	Rizky Anggraita	OUTCOME OF PATIENT SAFETY CULTURE USING THE HOSPITAL SURVEY ON PATIENT SAFETY CULTURE (HSOPSC) IN ASIA : A SYSTEMATIC REVIEW
2	ICASH 4_A111	Rovels Agber Maywell Iroth	THE IMPACT OF CLINICAL PATHWAY TO EFFECTIVENESS OF PATIENT CARE IN CURRENT MEDICAL PRACTICE IN HOSPITAL
3	ICASH 4_A113	Sukma Marthia Rahani	THE EFFECT OF ANTIEMETIC FOR GALACTOGOGUE
4	ICASH 4_A116	Umi Fikria Arif	THE USE OF SOCIAL MEDIA AS HOSPITAL MARKETING TOOL
5	ICASH 4_A124	Silvia Evalina Tarigan	A REVIEW OF THE BALANCED SCORECARD IMPLEMENTATION IN HEALTH SECTOR ORGANIZATION
6	ICASH 4_A126	Muhammad Firdaus	IMPROVING PATIENT SAFETY AND HOSPITAL SERVICE QUALITY THROUGH ELECTRONIC MEDICAL RECORD : A SYSTEMATIC REVIEW
7	ICASH 4_A127	Ni Putu Indra Dewi	MARKETING STRATEGY ANALYSIS OF MEDICAL TOURISM PROGRAMS IN THE HOSPITAL AT DEVELOPING COUNTRIES IN ASIA

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



TUESDAY, 23 JULY 2019

Room 402
Moderator Hnin Oo Mon, MPH., Ph.D. (Cand.)
Panel coordinator Dwina Gustia Diary

Panel Session 1		Health service and management : users' perspective	
1	ICASH 4_A008	I Gusti Ngurah Edi Putra	ADDRESSING GENDER INEQUALITY TO IMPROVE MATERNAL HEALTH IN INDONESIA: A NARRATIVE LITERATURE REVIEW
2	ICASH 4_A048	A.A.I.A Sri Stuti Damayanti	ANTIMICROBIAL STEWARDSHIP STRATEGY TO REDUCE LENGTH OF STAY AND COST OF ANTIBIOTIC CONSUMPTION: A SYSTEMATIC REVIEW
3	ICASH 4_A050	Anastasia Yekti Heningnurani	PATIENT SAFETY CULTURE DEVELOPMENT AT JAMBI'S PUBLIC HOSPITAL
4	ICASH 4_A095	Asdawati	WOMAN PERCEIVED OF LONG ACTING CONTRACEPTIVE COUNSELING OF FAMILY PLANNING CONSELLOR IN FAMILY PLANNING AGENCY OF BONTOMATENE SUBDISTRICT : A QUALITATIVE STUDY
5	ICASH 4_A099	Handi Wirawan	STANDARD OF MEDICAL CARE WITH SELF-CARE FOR OUTPATIENT WITH DIABETES MELLITUS
6	ICASH 4_A101	I Nyoman Gede Bayu Wiratama S.	REDUCED LENGTH OF STAY IN CHILDREN WITH DIARRHEA FOLLOWING IMPLEMENTATION OF CLINICAL PATHWAY
7	ICASH 4_A102	I Nyoman Gede Semarajana	FACTORS RELATED TO PENDING CLAIM IN INDONESIAN NATIONAL HEALTH INSURANCE (JKN): A SYSTEMATIC REVIEW
8	ICASH 4_A104	Maria Wahyu Daruki	EFFECTIVENESS OF CAESAREAN SECTION CLINICAL PATHWAY TOWARDS HOSPITAL LENGTH OF STAY
9	ICASH 4_A106	Mia Mariani	THE CHILD'S DENTAL TREATMENT WITH SEDATION: REASONS, DENTAL TREATMENT NEEDS, MEDICAL CONDITION, AND HISTORY OF DENTAL ANXIETY AMONG CHILDREN IN YARSI DENTAL HOSPITAL
Panel Session 2		Health service and management : users' perspective	
1	ICASH 4_A108	Prisca Gisella	A DEMOGRAPHIC PICTURE ON MEDICAL CHECK UP PATIENTS AND ITS ASSOCIATION WITH PATIENT SATISFACTION LEVEL AT X HOSPITAL IN WEST JAKARTA FOR THE PERIOD OF OCTOBER 2018- FEBRUARY 2019
2	ICASH 4_A112	Siti Lestarinigrum	SYSTEMATIC REVIEW: PATIENT SATISFACTION ON JKN SERVICES
3	ICASH 4_A114	Tantri Puspa Ditya	PROVIDING ADEQUATE INFORMATION FOR OUTPATIENTS IN RSUPN DR. CIPTO MANGUNKUSUMO JAKARTA NOVEMBER 2018 - FEBRUARY 2019
4	ICASH 4_A115	Tetriadi	VARIATION OF CAESAREAN SETION COSTS IN INDONESIA HOSPITALS
5	ICASH 4_A128	Anindita Santoso	UNIVERSAL PRECAUTION OF SECTIO CAESARIA IN SURGICAL ROOM

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



TUESDAY, 23 JULY 2019

Room 403
Moderator Donny Nauphar, M.Si.Med., Ph.D. (Cand.)
Panel coordinator Monita Destiwi

Panel Session 1			Poster Talk
1	ICASH 4_PT01	Asti Arieayan	Implementation Lean Strategy to reduce overcrowding and increasing patient flow in Emergency Departement
2	ICASH 4_PT02	Dewi Citra Puspita	IE AND SWOT ANALYSIS OF HOSPITAL IN THE UNDERDEVELOPED AREA: CASE STUDY OF BETHESDA GENERAL HOSPITAL, SERUKAM, BENGKAYANG REGENCY, WEST KALIMANTAN PROVINCE
3	ICASH 4_PT03	Elfry Syahri	Quality Analysis of Outpatient Satisfaction Services KH Daud Arif Kuala Tungkal Hospital Kab. West Tanjab Jambi Province
4	ICASH 4_PT04	Elsa Primasari	HALAL FOOD SUPPLY MOTIVATION FOR MUSLIM PATIENTS
5	ICASH 4_PT05	Ida Ayu Wirastuti	Prevention and Management For The Complication Odontectomy : A Systematic Review
6	ICASH 4_PT06	Irin Kirana	Special Dentistry Profession Sheet as a Medical and Forensic Communication Tool
7	ICASH 4_PT07	Leti Ratna Kusumawati	FACTORS ANALYSIS RELATED TO THE WAITING TIME IN CT SCAN EXAMINATION BASED ON THE MALCOLM BALDRIGE APPROACH TO PATIENT IN RADIOLOGICAL INSTALLATION
8	ICASH 4_PT08	Mardiah	THE CENTRAL POLICE HOSPITAL R. SAID SUKANTO 2019 The Role of Hospital Marketing Mix to the Selection Consumer Hospital
Panel Session 2			Poster Talk
1	ICASH 4_PT09	Melanie Vandauli	THE ANALYSIS OF HIV CONSELING AND TESTING IN TUBERCULOSIS PATIENT IN X HOSPITAL 2019
2	ICASH 4_PT10	Ni Putu Ayu Prima	Travel Medicine Management for The Anticipation of Infectious Diseases In Southeast Asia: A Systematic Review
3	ICASH 4_PT11	Ni Putu Deni Adi	Systematic Review: Determinants of Patient Satisfaction with Hospital Services
4	ICASH 4_PT12	Petra Ade Paramitha Lestari	Factors affecting the compliance and utilization of ANC in some countries : a systematic review
5	ICASH 4_PT13	Purbosari	Turnaround Time (TAT) of Diagnostic Laboratory Results as a Quality Improvement that affect to Patient Satisfaction
6	ICASH 4_PT14	Yuliani	INCOMPLETENESS AND INACCURACY OF DIAGNOSIS, PROCEDURES AND CODING AND THEIR CORELLATION WITH THE INA-CBG'S CLAIM IN INDONESIA
7	ICASH 4_PT15	Nurul Qosimah	THE INFLUENCE OF MARKETING MIX ON PATIENT VISITS IN HOSPITALS: NARRATIVE REVIEW
8	ICASH 4_PT16	Essi Guspaneza	DETERMINANT FACTORS OF UNWANTED PREGNANCY IN INDONESIA 2017 (ANALYSIS DATA IDHS 2017)

TUESDAY, 23 JULY 2019

Session 1			Poster Presentation Assessment
1	ICASH 4_B029	Martha Jessica	CORRELATION BETWEEN LEVEL OF KNOWLEDGE AND PRACTICING BREAKFAST AMONG UNDERGRADUATE STUDENTS IN FACULTY OF PUBLIC HEALTH UNIVERSITY OF INDONESIA (UI)
2	ICASH 4_B030	Melissa Paulina Pasaribu	THE LEVEL OF KNOWLEDGE ON 1000 THOUSAND FIRST DAYS OF LIFE AMONG HEALTH SCIENCE STUDENTS IN UNIVERSITY OF INDONESIA
3	ICASH 4_B043	Anyta Eka	HEALTH PROMOTION PRACTITIONER'S ROLES IN BEHAVIOR CHANGE COMMUNICATION STRATEGY: A SYSTEMATIC REVIEW
4	ICASH 4_B044	Athaya Aurelia	ANALYSIS OF DURATION IN USING GADGETS ON EYE REFRACTION ERRORS AMONG UNDERGRADUATE STUDENTS IN FACULTY OF PUBLIC HEALTH UNIVERSITY OF INDONESIA (UI)
5	ICASH 4_B005	Annisa Septy Nurcahyani	PRENATAL YOGA TO REDUCE STRESS AMONG PREGNANT WOMEN : A LITERATURE REVIEW
6	ICASH 4_B006	Chandra Tyas Nur Fitria	COMPLEMENTARY AND NON-PHARMACOLOGY THERAPY FOR LABOR PAIN
7	ICASH 4_B007	Diksi Laksmi Dewi	EXCLUSIVE BREASTFEEDING FOR STUNTING PREVENTION : A LITERATURE REVIEW
8	ICASH 4_B008	Dina Hanifa	HERBAL LACTAGOGUE FOR BREASTFEEDING MOTHERS IN INDONESIA: A LITERATURE REVIEW
9	ICASH 4_B009	Endah Purwanti Handayani	HEALING TOUCH AS COMPLEMENTERY TREATMENT IN MIDWIFERY ASPECT : A REVIEW
10	ICASH 4_B010	Enny Trisanti	MASSAGE FOR REDUCING POST-CESAREAN PAIN : A SYSTEMATIC REVIEW
11	ICASH 4_B011	Entan Afriannisyah	COMBINATION OF ACUPRESSURE WITH YOGA (ACUYOGA) TO REDUCE BACK PAIN IN PREGNANT WOMEN
12	ICASH 4_B012	Erlin Chusna Putri	EFFECTIVENESS OF FENUGREEK SEEDS (TRIGONELLA FOENUM-GRÆCUM) ON BREAST MILK PRODUCTION : A LITERATURE REVIEW
13	ICASH 4_B013	Ester Dolla	MASSAGE FOR WEIGHT GAIN AND REDUCING TIME OF HOSPITALIZATION ON PRETERM BABY IN NICU ROOM: A LITERATURE REVIEW
14	ICASH 4_B014	Ewith Widya Mareta	THE EFFECT OF OXYTOCIN AND PAPAYA EXTRACT ON PROLACTIN HORMONE LEVELS AND BREAST MILK VOLUME IN NORMAL POST PARTUM MOTHERS
15	ICASH 4_B015	Friska Oktaviana	PARENTS' ROLE IN TODDLERS FEEDING FOR OBESITY PREVENTION
16	ICASH 4_B016	Handayani	SOYBEAN, PALM DATE, AND KATUK LEAVES CONSUMPTION TO INCREASE BREASTMILK PRODUCTION
17	ICASH 4_B017	Hasriyanti Romadhoni F	HERBS FOR EPISIOTOMY WOUND HEALING
18	ICASH 4_B018	Herlina	ACUPRESSURE FOR REDUCING BACK PAIN IN TRIMESTER III PREGNANT WOMEN
19	ICASH 4_B019	Ica Maulina Rifkiyatul Islami	BIOMARKERS ARE THE BEST SCREENING TO PREDICT PREECLAMPSIA: A REVIEW
20	ICASH 4_B020	Isnu Kurnia	PREGNANCY MASSAGE THERAPY TO REDUCE DEPRESSION: A SYSTEMATIC REVIEW
21	ICASH 4_B021	Kintan Anissa	CHILDBIRTH ATTENDED BY LABOR DOULA: A LITERATURE REVIEW
22	ICASH 4_B022	Maratus Sholichah Fitria	MOBILE APPLICATION FOR EARLY DETECTION OF BREAST CANCER: A REVIEW
23	ICASH 4_B023	Meisha Julian Angraini	IS UTERINE MASSAGE EFFECTIVE TO PREVENT POSTPARTUM HEMORRHAGE? A REVIEW
24	ICASH 4_B024	Miftah Nurlaily El Akhlaq	THERAPY FOR PREECLAMPSIA SHOULD BE COMBINED FOR MAXIMUM TREATMENT
25	ICASH 4_B025	Oknalita Simbolon	OVERSEAS EARLY BREASTFEEDING INITIATION PROGRAM: A SYSTEMATIC REVIEW
26	ICASH 4_B026	Paulina Pida	EFFECTIVENESS OF BABY MASSAGE IN REDUCING BILIRUBIN LEVELS AMONG INFANTS WITH HYPERBILIRUBINEMIA: A LITERATURE REVIEW
27	ICASH 4_B027	Putri Maretyara Septiani	AROMATHERAPY FOR NAUSEA AND VOMITING IN PREGNANCY: A LITERATURE REVIEW

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



WEDNESDAY, 24 JULY 2019

Room 401
Moderator Dyah Anantalia Widyastari, PhD (Cand.)
Panel coordinator Dwina Gustia Diary

Panel Session 1			Health education and promotion
1	ICASH 4_A067	Kiki Yusika	MULTIPLE MECHANISM OF ADOLESCENTS WHO HAVE EARLY MENARCHE
2	ICASH 4_A072	Raffiky Pinandia S	USING THE SMARTPHONE APPLICATION FOR PREGNANCY CARE: A LITERATURE REVIEW
3	ICASH 4_A078	Wahyu Diana	SELF-INTERNALIZATION FACTORS FOR CONDOM USE AMONG COMMERCIAL SEX WORKERS (CSW) IN PREVENTING HIV / AIDS TRANSMISSION
4	ICASH 4_A019	Dina Alfiana	THE CORRELATION BETWEEN EDUCATION, WORK, AND MATERNAL KNOWLEDGE ON COMPLEMENTARY FEEDING WITH 6-24 MONTHS' NUTRITIONAL STATUS
5	ICASH 4_A023	Ika Rena Pratiwi	THE CORRELATION BETWEEN MOTHER'S KNOWLEDGE, EDUCATION AND FAMILY INCOME WITH NUTRITIONAL STATUS OF TODDLER (AGED 1-6 YEARS)
6	ICASH 4_A025	Juharny eka Sackbani	THE EFFECT OF ANXIETY SCALE IN DEALING WITH OBJECTIVE STUDENT ORAL CASE ANALYSIS (OSOCA) EXAMINATION WITH THE CASE OF FUNCTIONAL DYSPEPSIA IN THE FIRST SEMESTER MEDICAL STUDENTS
7	ICASH 4_A029	Nita safitri	CORRELATION BETWEEN ANXIETY LEVEL AND SELF DIRECTED LEARNING READINESS (SDLR) WITH STUDENT PERFORMANCE IN PROBLEM BASED LEARNING (PBL)
8	ICASH 4_A030	Nurul Amaliah Lestari	THE EFFECT OF SELF DIRECTED LEARNING READINESS (SDLR) AND LEARNING APPROACH TOWARD MEDICAL STUDENT ACHIEVEMENT
9	ICASH 4_A037	Tridaya Putri Handayani	THE CORRELATION BETWEEN EDUCATION AND SOCIAL ECONOMIC LEVELS ON ANTIBIOTIC SELF-MEDICATION IN CIREBON
10	ICASH 4_A081	Niken Meilani	ATTITUDES TOWARDS HIV AIDS AMONG MIDWIFERY STUDENTS IN YOGYAKARTA
11	ICASH 4_A082	Hesty Widiasih	SCRAPBOOKING RELATED TO PERSONAL HYGIENE HABITS AND PREVENTION BEHAVIOR OF PATHOLOGICAL LEUCORRHOEA
Panel Session 2			Health education and promotion
1	ICASH 4_A091	Abiyyu Naufal Susanto	DENGUE HEMORRHAGIC FEVER (DHF) EDUCATIVE GAME TO IMPROVE KNOWLEDGE AND SKILL OF ELEMENTARY SCHOOL CHILDREN IN DHF PREVENTION
2	ICASH 4_A117	Ilma Aptaningrum	THE INFLUENCE OF SMARTPHONE APPLICATION ON THE HYGIENE BEHAVIOR OF EXTERNAL REPRODUCTION ORGAN FEMALE STUDENTS OF SEYEGAN SLEMAN 1 JUNIOR HIGH SCHOOL
3	ICASH 4_A001	Andrew Macnab	AN EVALUATION OF VIDEO MATERIALS WITH A HEALTH-RELATED MESSAGE AVAILABLE IN INDONESIA
4	ICASH 4_A039	Danai Bawornkiattikul	EVALUATION OF RESIDENCE SANITATION CONDITION AND LIFE QUALITY OF CONSTRUCTION WORKERS IN CHONBURI PROVINCE, THAILAND
5	ICASH 4_A047	Liza Merianti	STORIES OF MOTHERS WITH INTELLECTUAL DISABILITY CHILDREN IN WEST SUMATERA, INDONESIA
6	ICASH 4_A002	Mahendrawan N.A. Pratama	FACTORS AFFECTING WORK PERFORMANCE OF FAMILY PLANNING FIELD WORKERS OF BKKBN IN EAST JAVA PROVINCE, INDONESIA
7	ICASH 4_A004	Andi Pancanugraha	FACTORS AFFECTING STUDENTS' LEARNING ACHIEVEMENT IN POPULATION EDUCATION AT POPULATION-AWARE SCHOOL: SUKABUMI, INDONESIA
8	ICASH 4_C004	Ayu Pratiwi	CHANGES IN TOBACCO CIGARETTE USE INTO ELECTRIC CIGARETTE IN 2018
9	ICASH 4_C005	Alif Hamzah	CORRELATION OF AGE, SEX, HEREDITY SMOKING HABBIT, OBESITY, AND SALT CONSUMPTION TOWARDS HYPERTENSION LEVEL IN CIREBON, INDONESIA
10	ICASH 4_C018	Silvia Intan Suri	SMOKERS' EXPERIENCES IN QUITTING SMOKING HABIT
11	ICASH 4_A132	Fauziah Nasution	PERCEPTION OF PICTORIAL HEALTH WARNING ON CIGARETTE PACKS, SMOKING BEHAVIOUR AND WILLINGNESS TO QUIT SMOKING

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



WEDNESDAY, 24 JULY 2019

Room 402
Moderator Donny Nauphar, M.Si.Med., Ph.D. (Cand.)
Panel coordinator Monita Destiwi

Panel Session 1			Nutrition and health behavioral intervention
1	ICASH 4_A056	Beniqna Maharani Besmaya	IS THE MULTIPLE MICRONUTRIENTS BETTER TO REDUCE ANEMIA IN PREGNANCY COMPARED TO IRON- FOLATE ACID SUPPLEMENTATION? A SYSTEMATIC REVIEW
2	ICASH 4_A077	Stevani Basuki Putri	SOLUTIONS FOR ACHIEVING ROUTINE TABLET CONSUMPTION IN YOUTH: A LITERATURE REVIEW
3	ICASH 4_A014	Alif hamzah	CORRELATION OF AGE, SEX-LINKED, HEREDITY SMOKING HABBIT, OBESITY, AND SALT CONSUMPTION TOWARDS HYPERTENTION GRADE IN CIREBON, INDONESIA
4	ICASH 4_A015	Ayatullah	THE CORRELATION OF KNOWLEDGE AND ATTITUDE TOWARDS DRUGS WITH DRUG ABUSE BEHAVIOR AMONG ADOLESCENTS IN KESUNEAN HEALTH CENTRE, CIREBON CITY
5	ICASH 4_A021	Hanif Haidaryafi	DESCRIPTIVE STUDY OF DIETARY PATTERNS AND PHYSICAL ACTIVITIES AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS IN COMMUNITY HEALTH CENTER OF KESUNEAN, CIREBON
6	ICASH 4_A036	Tiara Syamsa Noor Wildania	IMPACT OF OBESITY AND DIABETES MELLITUS TYPE II WITH INCIDENCE OF HYPERTENSION IN AGE 45-65 YEARS OLD
7	ICASH 4_A085	Ester Inung Sylvia	DETERMINANTS OF PREDIABETES IN YOUTH IN PALANGKARAYA CITY
8	ICASH 4_A006	Nitchamon Rakkapao	KNOWLEDGE, ATTITUDES, AND HIV/AIDS RISK BEHAVIORS OF MIGRANT WORKERS IN THAILAND
9	ICASH 4_A007	Yadanar Aung	ALCOHOL CONSUMPTION AND CURRENT SITUATION OF DRINKING RISK LEVEL AMONG UNIVERSITY STUDENTS IN MANDALAY REGION
10	ICASH 4_A044	Dona Amelia	CONTROLLING DIET EXPERIENCE OF DIABETIC PATIENTS IN BUKITTINGGI, INDONESIA
Panel Session 2			Nutrition and health behavioral intervention
1	ICASH 4_A092	Suci Muqodimatul Jannah	THE RELATIONSHIP BETWEEN AGE, GENDER, AND BMI TO THE PREVALENCE OF FLATFOOT IN PRIMARY SCHOOL CHILDREN IN LAWEYAN
2	ICASH 4_A093	Izzah Dienillah Saragih	PREVALENCE OF SKIN DISEASES IN THE COASTAL AREA OF TELUK NIBUNG NORTH SUMATRA
3	ICASH 4_A125	Mutiara Ayu Muthiatulsalimah	DETERMINANT OF CHRONIC ENERGY MALNUTRITION OF PREGNANT WOMEN AT KARANG BANDAR LAMPUNG HEALTH CENTER
4	ICASH 4_C001	Ivana Aprilia Pratiwi	STORAGE STABILITY OF HIGH FIBER SNACK BAR
5	ICASH 4_C003	Silfia Nuzulus Sa'Idah	RELATIONSHIP OF KNOWLEDGE AND ATTITUDE OF ANEMIA WITH ORAL IRON CONSUMPTION AMONG ADOLESCENT
6	ICASH 4_C008	Agnescia Clarissa Sera	CRITICS ON POLICY OF SOY-BASED INFANT FORMULA IN INDONESIA: COMPARING TO AUSTRALIA AND NEW ZEALAND FOOD STANDARDS
7	ICASH 4_C010	Nur Khafidhoh	EFFECTS OF SOY MILK ADMINISTRATION ON BLOOD PRESSURE, LDL LEVEL AND PROTEIN IN URINE OF WOMEN WITH GESTATIONAL HYPERTENSION
8	ICASH 4_C013	Dhini	TODDLER ACCEPTANCE ON VEGETABLE SIDE DISH MODIFICATION AT CINTA DAYCARE PALANGKA RAYA

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



WEDNESDAY, 24 JULY 2019

Room 403
Moderator Dr. Nyein Chan
Panel coordinator Marina Ayu Viniriani

Panel Session 1		Health education, service and management	
1	ICASH 4_A084	Elis Fitria	HEALTH LITERACY AND DIABETES RISK FACTORS SCORE AMONG STATE CIVIL ADMINISTRATION SERVANT IN FINANCE AND ASSET REGIONAL AGENCY OF CENTRAL KALIMANTAN OFFICE
2	ICASH 4_A088	Ariani Pongoh	APPLICATION INDEX CARD MATCH TO IMPROVE MIDWIVES' KNOWLEDGE ON HIGH-RISK PREGNANCY DETECTION USING SCORE CARD POEDJI ROCHYATI IN SORONG, PAPUA
3	ICASH 4_A119	Maria Magdalena Purba	NURSING IMPLEMENTATION IN CONTROL LONG COGNITIVE AND PSYCHOMOTOR CAPABILITIES OF HALLUCINATORY PATIENTS IN KALAWA ATEI MENTAL HOSPITAL OF PALANGKA RAYA
4	ICASH 4_A045	Ade Srywahyuni,	USING SCORECARD TO ANALYSE RISK FACTORS OF STROKE IN WEST SUMATERA INDOENSIA
5	ICASH 4_A090	Duly Apika Sari	GUIDELINES FOR INVOLVING POTENTIAL STAKEHOLDERS IN ENHANCING REPRODUCTIVE HEALTH SERVICE AND THE PROVISION OF IDEAL AGE OF MARRIAGE EDUCATION IN BKKBN'S YOUTH INFORMATION AND COUNSELLING CENTRE, INDONESIA
6	ICASH 4_A005	Fatimah	EXPECTATIONS AND PERCEPTIONS OF SERVICE QUALITY TOWARD TRAINING AND EDUCATION FOR FAMILY PLANNING FIELD WORKER AT POPULATION AND FAMILY PLANNING BOARD PROVINCE OF CENTRAL SULAWESI, INDONESIA
7	ICASH 4_A122	Masrinto Pongrambu	NEEDS ASSESSMENT OF LEADERSHIP TRAINING & DEVELOPMENT PROGRAM. A CASE STUDY AT INDONESIA'S NATIONAL POPULATION AND FAMILY PLANNING AGENCY (BKKBN)
8	ICASH 4_A123	Utut Septi Asrianti	LEADERSHIP SKILL AND MANAGEMENT PROCESS IN CENTER OF INFORMATION AND COUNSELING (CIC) AT UPPER SECONDARY SCHOOL IN SOUTH JAKARTA DISTRICT, INDONESIA
9	ICASH 4_C012	M. Delwer Hossain Hawlader	ASSOCIATION BETWEEN BODY COMPOSITION AND HYPERTENSION AMONG ADULT POPULATION OF BANGLADESH
10	ICASH 4_C017	Mohammad Hayatun Nabi	RISK FACTORS OF LATERAL EPICONDYLITIS AMONG THE PATIENTS ATTENDED IN A SPECIALIZED HOSPITAL IN BANGLADESH: A HOSPITAL BASED CASE-CONTROL STUDY

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



WEDNESDAY, 24 JULY 2019

Room 403
Moderator Pichpisith P. Vejvisithsakul MD., Ph.D. (Cand.)
Panel coordinator Marina Ayu Viniriani

Panel Session 2		Applied science in health	
1	ICASH 4_A033	Sri Utami Fauziah	EFFECTIVENESS OF ORALLY USE CATFISH (<i>CLARIAS GARIEPINUS</i>) SKIN AND MEAT ON WOUND LENGTH AND FIBROBLAST DENSITY IN INCISION WOUND OF WISTAR RAT (<i>RATTUS NORVEGICUS</i>)
2	ICASH 4_A034	Syahidatun Hayati	ESSENTIAL OIL TEST OF BAWANG DAYAK (<i>ELEUTHERINE BULBOSA</i> MILL.) EXTRACT IN INHIBITORY <i>MALASSEZIA FURFUR</i> GROWTH
3	ICASH 4_A035	Tessa Swesty Islamia	THE INHIBITION TEST OF FLAVONOID AND TANIN IN NONI FRUIT (<i>MORINDA CITRIFOLIA</i> LINN) COMPARED TO CEFTRIAZONE TOWARDS <i>ESCHERICHIA COLI</i> IN VITRO
4	ICASH 4_A089	Teguh Supriyono,	MICROENCAPSULATION OF KARAMUNTING LEAF EXTRACT (<i>RHODOMYRTUS TOMENTOSA</i>) AS INSTANT DRINK POWDER
5	ICASH 4_A003	Sanjeev Bijukchhe	ASSOCIATION AMONG STATIN, TELOMERE LENGTH AND CARDIOVASCULAR DISEASES
6	ICASH 4_A042	Afifah Vardhani	CAESALPINIA SAPPAN L: REVIEW ARTICLE
7	ICASH 4_A130	Nasser Mehrdadi	EFFECT OF ULTRASOUND TECHNOLOGY ON WASTEWATER TREATMENT EMPHASIZING ON HEALTH ISSUE
8	ICASH 4_C002	Thi Bich Hien Tran	SYNTHESIS AND CHARACTERIZATION OF PROTEIN CONJUGATED CADMIUM TELLURIDE QUANTUM DOTS FOR BREAST CANCER TARGETING
9	ICASH 4_C007	Marwan Hermawan	THE POTENTIAL OF DAYAK ONION ESSENTIAL OIL (<i>ELEUTHERINE BULBOSA</i> MILL.) TO INHIBIT GROWTH OF <i>KLEBSIELLA PNEUMONIAE</i> IN VITRO

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



WEDNESDAY, 24 JULY 2019

Room 404
Moderator Ariestya Indah Permata Sari, MD., M.Sc., M.Si.Med.
Panel coordinator Maretalinia

Panel Session 1		Maternal and child health	
1	ICASH 4_A052	Aida Amalia Nur Ramadhian	THE REBORN OF EXCLUSIVE BREASTFEEDING METHOD: ANTENATAL BREAST EXPRESSION (ABE) : A LITERATURE REVIEW
2	ICASH 4_A053	Aisyah	THE EFFECT OF MUSIC THERAPY FOR PREGNANT WOMEN : A SYSTEMATIC REVIEW
3	ICASH 4_A054	Andriana	THE EFFECTIVENESS OF ACUPUNCTURE ON WOMEN WITH POLYCYSTIC OVARY SYNDROME: SYSTEMATIC LITERATURE REVIEW
4	ICASH 4_A058	Dian Aprilia Damayanti	METABOLIC DISORDERS OF PREECLAMPSIA: A REVIEW
5	ICASH 4_A059	Dina Anggraini	EFFECTS OF HEGU POINT SUPPRESSOR (LI 4) AND BIRTH BALL TECHNIQUE ON LABOR PAIN: LITERATURE REVIEW
6	ICASH 4_A060	Diyas Windarena	WHAT IS METABOLIC DISRUPTION IN THE GESTATIONAL HYPERTENSION DISORDER : A REVIEW
7	ICASH 4_A061	Dwi Apriani	COMPLEMENTARY AND ALTERNATIVE MEDICINE (CAM) IN THE FIRST STAGE OF LABOR PAIN: A LITERATURE REVIEW
8	ICASH 4_A062	Dwi Hesti Diah Citrawati	COMPLEMENTARY THERAPIES FOR LABOR INDUCTION AND THEIR LEGALITY IN INDONESIA: A REVIEW
9	ICASH 4_A063	Ertitawati Siregar	NON PHARMACOLOGICAL TREATMENTS FOR BREAST ENGORGEMENT: A SYSTEMATIC REVIEW
10	ICASH 4_A064	Fatatu Malikhah	THE EFFECT OF LOVING TOUCH STIMULATION THERAPY FOR INFANTS' WEIGHT GAIN
11	ICASH 4_A065	Ida Ayu Putu Dewi	ACUPRESSURE AND YOGA COMBINATION CAN REDUCE ANXIETY DURING PREGNANCY
12	ICASH 4_A066	Ismi Puji Astuti	EFFECTIVENESS OF PRENATAL YOGA ON PREGNANCY ANXIETY AND DEPRESSION: A SYSTEMATIC REVIEW
13	ICASH 4_A069	Nahdiah Karimah	THE PERIOD OF PERINEAL WOUND HEALING IN POSTPARTUM MOTHERS BETWEEN THE DECOCTION WATER TREATMENTS OF BINAHONG LEAVES WITH RED BETEL LEAVES
14	ICASH 4_A070	Noviyati Rahardjo Putri	COMPREHENSIVE THERAPY FOR POLYCYSTIC OVARY SYNDROME: KEY POINTS TO IMPROVE QUALITY OF LIFE

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



WEDNESDAY, 24 JULY 2019

Room 404
Moderator Dr. Nyein Chan
Panel coordinator Maretalinia

Panel Session 2		Maternal and child health	
1	ICASH 4_A074	Riska Ismawati Hakim	FOOT REFLEXOLOGY FOR WOMEN AND FETAL WELLBEING IN LABOR : A REVIEW
2	ICASH 4_A075	Rizkie Aulia Amini	THE INFLUENCE OF GALBLADDER ACUPRESSURE POINT 21 (JIAN JING) AND STOMACH 18 (RU GEN) IN INCREASEING BREASTMILK PRODUCTION
3	ICASH 4_A080	Zubaeda	COULD HERBAL MEDICINE BE A COMPLEMENTARY THERAPY IN LEUCORRHEA TREATMENT AND CARE?
4	ICASH 4_A011	Mauli Ardhiya	THE RELATIONSHIP BETWEEN KNOWLEDGE, ATTITUDE AND BEHAVIOR OF BREASTFEEDING AND INTAKE OF COMPLEMENTARY FEEDING WITH NUTRITIONAL STATUS OF CHILDREN AGED 6-24 MONTHS AT KESUNEAN HEALTH CENTER CIREBON CITY 2019
5	ICASH 4_A013	Akbar Dito Erlangga	THE CORRELATION BETWEEN ANTENATAL CARE, PARITY AND MATERNAL AGE AMONG PREGNANT WOMEN WITH ANTEPARTUM HEMORRHAGE INCIDENCE AT GONDOSARI COMMUNITY HEALTH CENTER, KUDUS
6	ICASH 4_A017	Dewi Sukmawati	THE COMPARISON OF DIARRHEA INCIDENCE BETWEEN 0-6 MONTHS OLD INFANTS WHO WERE EXCLUSIVELY BREASTFED, NON-EXCLUSIVELY BREASTFED AND GIVEN MILK FORMULA IN CIREBON CITY, INDONESIA
7	ICASH 4_A083	Nirmala Sari	RISK FACTORS FOR IRON DEFICIENCY ANEMIA IN INFANTS AGED 6
8	ICASH 4_A087	Riyanti	KARUNGUT MUSIC REDUCES ANXIETY OF PREGNANT MOTHER ADOLESCENT TRIMESTER III
9	ICASH 4_A131	Aye Thi Khaing	FACTORS INFLUENCING DELIVERY BY SKILLED BIRTH ATTENDANTS AND POSTNATAL HEALTH CHECK AMONG MOTHER IN MYANMAR
10	ICASH 4_C009	Ida Ariyanti,	EFFECTS OF EXPERIENCE SHARING ON ANXIETY AMONG WOMEN WITH LOW BIRTH WEIGHT BABIES
11	ICASH 4_C011	Sri Rahayu	EFFECTS OF ROLLING MASSAGE AND ST-18 ACUPRESSURE ON BREAST MILK PRODUCTION AND REDUCED FUNDAL HEIGHT
12	ICASH 4_C014	Diana Oktaviastuti Darmasety	THE AFFECTING FACTORS TO THE EXCLUSIVE BREASTFEEDING IN RURAL AREA OF YOGYAKARTA
13	ICASH 4_C015	Regita Cita Puspitasari	CHARACTERISTICS OF STUNTING IN TODDLERS AGED 12-59 MONTHS IN KULON PROGO, YOGYAKARTA, INDONESIA
14	ICASH 4_C016	Denny Iswara	ASSOCIATION OF HEALTH WORKER ROLES AND FAMILY SUPPORT WITH ANXIETY AND BREASTMILK SUFFICIENCY IN MOTHERS WITH LOW BIRTH WEIGHT INFANTS

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



WEDNESDAY, 24 JULY 2019

Room 405
Moderator Reny Pratiwi, Ph.D. (Cand.)
Panel coordinator Ivana Aprilia Pratiwi

Panel Session 1			Applied science in health
1	ICASH 4_A038	Maya Erisna	DOES BEETROOT JUICE LOWER BLOOD PRESSURE? : A SYSTEMATIC REVIEW
2	ICASH 4_A040	Merisa Restiani Arma	POTENTIAL OF HERBAL PLANTS AS ANTIHYPERTENSIVE THERAPY: A REVIEW
3	ICASH 4_A043	Syafrida Ainur	INDONESIAN HERBS WITH ANTIFERTILITY EFFECTS ON MEN: A SYSTEMATIC REVIEW
4	ICASH 4_A057	Diah Ulfa	ANTIMICROBIAL ACTIVITY OF KERSEN (MUNTINGIA CALABURA L.) LEAVES : A SYSTEMATIC REVIEW
5	ICASH 4_A068	Lia Arian	EFFECTIVENESS OF BROWN SEAWEED (SARGASSUM SP) AS NATURAL ANTIOXIDANT FOR ENDOTHEL CELL PROTECTION IN PREECLAMPSIA - A LITERATURE REVIEW
6	ICASH 4_A071	Nur Anisa	EFFECT OF MORINGA LEAVES AND VITAMIN C CAPSULE COMBINATIONS IN INCREASEING HEMOGLOBIN LEVELS OF YOUNG WOMEN WITH ANEMIA
7	ICASH 4_A073	Reni Hariyanti	WHAT HAPPENS IF THE BROMELAIN IN ANANAS COMOSUS L MERR. GIVEN TO PEOPLE LIVING WITH HIVAIDS
8	ICASH 4_A010	Pepi Arifiyani	THE EFFECTIVENESS OF ORALLY GIVEN LEMON JUICE (CITRUS LIMON) TOWARD PYRAMIDAL NEURON CELLS OF MALE WHITE MICE'S CEREBRAL CORTEX THAT EXPOSED BY MONOSODIUM GLUTAMATE (MSG)
9	ICASH 4_A012	Adhy Nugroho	ANTIDIABETIC EFFECT OF COMBINED LEAF EXTRACT KERSEN (MUNTINGIA CALABURA L) AND METFORMIN IN RATS
Panel Session 2			Applied science in health
1	ICASH 4_A016	Dela Destiani Aji	THE EFFECT OF LEMON JUICE (CITRUS LIMON) IN LIVER HISTOPATHOLOGIC APPEARANCE OF MALE MICE'S (MUS MUSCULUS L.) THAT EXPOSED BY MONOSODIUM GLUTAMATE (MSG)
2	ICASH 4_A018	Dhini Oktaviani	CALCULATING COLONY OF CANDIDA SPP. AMONG INTELLECTUAL DISABILITY (ID) CHILDREN IN CIREBON
3	ICASH 4_A020	Hagi Wibawa	INFLUENCE OF GIVING BREADFRUIT (ARTOCARPUS ALTILIS (PARK) FOSBERG.) LEAVES EXTRACT TO DECREASE URIC ACID LEVELS IN WISTARS RATS HYPERURICEMIC
4	ICASH 4_A022	I Gusti Ayu Novita Afsari	THE EFFECTIVENESS OF LEMON JUICE (CITRUS LIMON) ON PURKINJE CELL OF WHITE MALE MICE (MUS MUSCULUS) CEREBELLAR CORTEX THAT EXPOSED BY MONOSODIUM GLUTAMATE (MSG)
5	ICASH 4_A024	Jibril Ali Syariati Assajad	ANTIDIABETIC EFFECT OF COMBINED CINNAMOMUM CASSIA EXTRACT AND METFORMIN IN RATS
6	ICASH 4_A026	Marwan Hermawan	THE POTENTIAL OF DAYAK ONION ESSENTIAL OIL (ELEUTHERINE BULBOSA MILL.) TO INHIBIT GROWTH OF KLEBSIELLA PNEUMONIAE IN VITRO
7	ICASH 4_A027	Mellyna Iriyanti Sujana	IDENTIFICATION OF SOIL-TRANSMITTED HELMINTH EGG IN GASTROINTESTINAL SYSTEM IN CHILDREN WITH INTELLECTUAL DISABILITY (ID)
8	ICASH 4_A028	Muhammad Irsyad Baihaqi	THE EFFECT OF ORALLY USE CATFISH (CLARIAS GARIEPINUS) SKIN AND MEAT ON EPITHELIALIZATION THICKNESS AND COLLAGEN DENSITY IN INCISION WOUND OF WISTAR RAT (RATTUS NORVEGICUS)
9	ICASH 4_A031	Rike Rizqilah	INHIBITORY OF SOURSOP LEAF (ANNONA MURICATA L.) EXTRACT AGAINST MALASSEZIA FURFUR GROWTH
10	ICASH 4_A032	Sayyidah Vina Syaunqia	EFFECTIVENESS OF ORALLY USE NILE FISH (OREOCHROMIS NILOTICUS) ON WOUND LENGTH AND FIBROBLAST DENSITY OF INCISION WOUND OF WISTAR RAT (RATTUS NORVEGICUS)

4th International Conference on Applied Science and Health

Science for the mankind: Translating research results into policy and practices

Faculty of Graduate Studies, Mahidol University

Salaya, 23-24 July 2019



ICASH
Research for Better Society

WEDNESDAY, 24 JULY 2019

Session 2			Poster Presentation Assessment
1	ICASH 4_B028	Ririn Indriani	EFFECTIVENESS OF MASSAGE FOR BABY'S GROWTH AND STUNTING DETECTION : A LITERATURE RIVIEW
2	ICASH 4_B031	Shandy Wigya Mahanani	THE EFFECT OF HYPNOTHERAPY FOR DECREASING ANXIETY IN PREGNANCY AND CHILDBIRTH
3	ICASH 4_B032	Sherly Dwi Gustiya	DETERMINANTS OF STUNTING AMONG UNDER-FIVE IN INDONESIA: A LITERATURE REVIEW
4	ICASH 4_B033	Siti Nurharisah	THE EFFECTIVENESS OF MINDFULNESS THERAPY FOR ANXIETY AND DEPRESSION IN PREGNANT WOMEN: A REVIEW
5	ICASH 4_B034	Widyaning Dara Utami	INCREASING ADOLESCENTS' KNOWLEDGE AND ATTITUDES TOWARDS MENSTRUAL HYGIENE MANAGEMENT: A LITERATURE REVIEW
6	ICASH 4_B035	Yeni Nurlita Seftia Dewi	YOGA AS AN EFFECTIVE WAY TO REDUCE LOW BACK PAIN IN THIRD TRIMESTER PREGNANT WOMEN
7	ICASH 4_B036	Yulia Febrina	E-PARTOGRAPH ADDIE MODEL AS LABOR LEARNING MODULE FOR MIDWIVES
8	ICASH 4_B037	Yuliani Tangko	THE EFFECTIVENESS OF PERINEAL MASSAGE TO PERINEAL RUPTURE IN PRIMIGRAVIDA WITH NORMAL BIRTH
9	ICASH 4_B038	Zahrotun Nisa' Setyoputri	EFFECTIVENESS OF MASSAGE FOR WEIGHT GAIN OF PREMATURE INFANTS: A REVIEW
10	ICASH 4_B039	Irmastuti Lukitaning Alam	EFFECT OF OXYTOCIN MASSAGE WITH LAVENDER AROMATHERAPY INCREASING BREAST MILK PRODUCTION
11	ICASH 4_B040	Rizqi Dian Pratiwi	PROGRESSIVE MUSCLE RELAXATION IN PREGNANCY: A LITERATURE REVIEW
12	ICASH 4_B042	Rofian Widyanita	FACTORS AFFECTING EARLY BREASTFEEDING INITIATION: A LITERATURE REVIEW
13	ICASH 4_B067	Febi Ratnasari	FACTORS AFFECTING THE NUTRITIONAL DEFICIENCY AND POOR NUTRITION OCCURENCES IN TODDLERS AT THE KUTABUMI COMMUNITY HEALTH CENTER, TANGERANG, INDONESIA
14	ICASH 4_B070	Siti Nadirah	COMPARING THE EFFECTIVENESS GYM DISMENORE AND WARM WATER COMPRESS IN REDUCING MENSTRUAL PAIN
15	ICASH 4_B060	Dela Ratna Sari	ADOLESCENT PREGNANCY WITH INCIDENCE OF ABORTION
16	ICASH 4_B062	Corry Ocvita Sari	THE DESCRIPTION OF TODDLERS FEEDING IN CLINICS NGEMPLAK I REGENCY OF SLEMAN YOGYAKARTA
17	ICASH 4_B003	Indri Hafida	MYDIETDAY: A WEB-BASED ALTERNATIVE SOLUTION FOR EFFECTIVE DIET STRATEGY INNOVATION IN PREVENTING TEENAGE PREGNANCY THROUGH BIDAN LEWU AND FAMILY ROLE
18	ICASH 4_B041	Natalia	HIGH HUMIDITY AND LOW TEMPERATURE AS THE RISK FACTORS OF SCABIES IN ISLAMIC BOARDING SCHOOLS (PESANTREN) IN BANDUNG
19	ICASH 4_B053	Fatimah Azzakiyah	PROVIDING SUPPLEMENTARY FOOD TO IMPROVE NUTRITION STATUS IN UNDERNOURISHED TODDLER: CASE STUDY IN KALAMPANGAN
20	ICASH 4_B055	Nora Adila	CHARACTERISTICS OF HYPERTENSION PATIENTS IN COASTAL DISTRICT PERCUT SEI TUAN
21	ICASH 4_B056	Zuhrina Aidha	IDENTIFYING AUTISM SPECTRUM DISORDER (ASD) AND THE TREATMENTS TO REDUCE ITS SEVERITY: A SYSTEMATIC REVIEW
22	ICASH 4_B057	Cristinawati Haloho	WHAT HAPPENED IF WOMAN IN REPRODUCTION AGE ARE GIVEN BETA VULGARIS? A REVIEW
23	ICASH 4_B058	Hilma Triana	EFFECTIVENESS OF MASSAGE FOR INFANTS AND TODDLERS WITH ACUTE RESPIRATORY INFECTION: A LITERATURE REVIEW
24	ICASH 4_B064	Asrawaty	BENEFITS OF UMBILICAL CORD MILKING VERSUS DELAYED CORD CLAMPING OUTCOMES IN PRETERM INFANTS: A LITERATURE REVIEW
25	ICASH 4_B068	Varisa Nowangi Irianti	USE OF HERBAL PLANTS FOR ACUTE RESPIRATORY INFECTION (ARI) IN TODDLERS: LITERATURE REVIEW
26	ICASH 4_B069	Yulvira Febriani	THE CORRELATION BETWEEN MENSTRUAL CHARACTERISTICS AND ANEMIA PREVALENCE IN MIDWIFERY STUDENTS OF YOGYAKARTA
27	ICASH 4_B072	Sepsiana Puspitasari	COASTAL NUTRITION STATUS OF THE COUNTRY REVIEWED FROM SOCIAL CULTURE AND ISLAMIC PERSPECTIVE
28	ICASH 4_B073	Eliska	



ICASH

Research for Better Society

ICASH-KEYNOTE

SCIENCE FOR MANKIND: TRANSLATING RESEARCH RESULTS INTO POLICY AND PRACTICES

Andrew J Macnab^{1,2,3,*}

¹ Stellenbosch Institute of Advanced Study, Wallenberg Research Centre, 10 Marais Street, 7600 Stellenbosch, South Africa

² University of British Columbia, Vancouver, Canada

³ Editor-in-Chief, Global Health Management Journal

*Corresponding author's e-mail: ajmacnab@gmail.com

EXTENDED ABSTRACT

"The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, and political belief, economic or social condition."

A large proportion of people worldwide suffer ill health and have poor quality of life because of conditions that could be prevented. Translating research results into policy and practices is one way countries can make a difference and improve the health of their populations. Some of this is achieved through rules and legislation, some by introducing new approaches often involving technology, and some through education - this process is broadly known as health promotion.

Health promotion is defined by WHO [1] as a 'process to enable people to increase control over, and to improve their health'. When this approach was introduced about 30 years ago it built on new types of health programmes that moved beyond a focus on identifying individual risk behaviour in order to "make the healthy choice the easier choice" through a wide range of environmental and social interventions.

Health Promotion – World Health Organization
<https://www.who.int/healthpromotion/conferences/6gchp/en/index.html>

Five key principles guide health promotion strategies [1]:

1. Health promotion is context driven:
Focuses on health and its underlying social and economic determinants for analyzing socio-economic, gender and ethnic gaps in health and disease patterns in populations.
2. Health promotion integrates the three dimensions of the WHO health definition:
Promoting health means addressing the multi-dimensional nature of health: its physical, social, and mental dimensions (and often, spiritual health).
3. Health promotion underpins the overall responsibility of the state in promoting health:
All levels of government have a responsibility and accountability for protecting, maintaining and improving the health of its citizens, and need to include health as a major component.
4. Health promotion champions good health as a public good:
Good health is beneficial to the society as a whole, its social and its economic development.
5. Participation is a core principle in promoting health:
The participation of people and their communities in improving and controlling the conditions for health is a core principle in promoting health.

The importance of health promotion for the region, and health policies related to it, is emphasized by two global conferences which have taken place in:



- Jakarta, Indonesia 1997. “New partners for a new era - leading health promotion into the 21st Century.”
- Bangkok, Thailand 2005, “6th Global Conference on Health Promotion.

In terms of the theme of our conference – Translating research into policy and practices – WHO’s principles 3-5 are particularly relevant to what we do as individuals and as members of a health care team or institute of higher learning.

While the state has the overall responsibility for the health of its citizens, and does this principally through policies and health programs, we all also have a responsibility to do our part and contribute through the work we do to health promotion. All levels of government are subject to national and regional policies intended to bring social and economic benefits through improvements in health. But we can help by being mindful of these policies, and by working to improve the health of the members of society we come into contact with. We can do this by helping those we work with and members of the public to understand what the policies mean, why they are relevant, and how each of us as individuals can make changes so that the beneficial outcomes the policies are intended to generate can be achieved.

Most of us here at this conference can see ways that we can champion good health as a part of the work we do already, or are studying to do. But as good health is a benefit for the individual and for society as a whole, we can and should all go further. What do you do to promote health among your friends or family? How do you share new knowledge you learn with your parents? What do you do when you see your brothers or sisters making choices and adopting behaviors in their lives which you know are either contrary to government policies, or potentially harmful to their health based on evidence-based information you have access to? Most importantly, how do those of you who are already parents yourselves promote the present and future health of your children through what you teach them and encourage them to do?

Participation across society is essential for effective health promotion. So we need to engage those we know and those we work with, and look for opportunities to reach out where we can to sections of the community that are new to us. In addition to using strategies that directly promote health around a specific issue, we also need to spread the word in the community about what the process of health promotion involves, why it is useful, how it can be done, and of course to explain the benefits.

As a pediatrician, a children’s doctor, I always remind everyone that our children are not only important to us as parents and to members of our family, they are also our nation’s most valuable resource. Healthy children are more likely to become healthy adults. We know that being a healthy as a child gives an individual a better chance of regularly attending school and completing their education, and that being healthy as an adult equates with greater ability to be productive and so economically better off. [3].

As examples of how and why the WHO principles of health promotion are applied, we can look at immunization against infectious diseases.

Health promotion is context driven

The current measles epidemic in the USA has prompted direct action in that country and made other countries look at infectious diseases in the context of their health promotion activities, and policies that need to be implemented.

The overall responsibility of the state is to promote health

Within the USA the state has shown its responsibility by putting legislation in place that requires all parents of school age children in affected communities to either produce proof of immunization against



measles, or to keep their children home from school. In one state, unimmunized adults were ordered to get immunized within 48 hours or face fines, as the situation was classified as a 'state of emergency'. As an example of why a state of emergency was legitimate and confirmation of just how infectious measles is, one adult from an area where there was an outbreak travelled to a neighbouring state and is thought to have infected 41 people. This is also an example of how vulnerable people are to infection in a community that has low 'herd immunity.'

Health promotion champions good health and benefits everyone in society

Herd immunity is a community-wide effect that promotes health in society as a whole through health promotion focussed on immunization. Herd immunity against infection exists where the majority (>85%) of the population is immune to an infectious disease [4]. What this herd effect does is disrupt the natural progression of infection from an infected person to someone vulnerable to the disease, which stops or slows the spread of infection. In a practical sense good health for everyone in society (the herd) results, because of the high measure of protection provided for those individuals who are not immune by the fact that so many individuals do not become infected in an outbreak because they are immune, which means that overall the risk of infection is very small. Herd immunity can be achieved by natural infection or through immunization programs, and is the evidence-based scientific rationale for government policies that promote routine immunization of infants and children.

Health promotion integrates the physical, social, and mental dimensions of health

How many of you have had measles and are naturally immune as a result? How many of you have been immunized against measles? As a young doctor in England before the measles, mumps rubella vaccine (MMR) became available I saw many cases of measles, but since I have been in Canada, I have never seen a case because of immunization. My children were immunized when they were young, and now they are parents they have never seen how serious a measles outbreak can be. Going back to the situation in the USA, it is important for us to understand that, like my grown up children, parents there today are from a generation which has had almost no first-hand experience of the ravages that childhood infectious diseases can cause. This also applies to many parents in Europe but is probably a surprise to many of you in other countries.

Most doctors dealing with the highest rates of measles infection to occur in the USA in decades, have also never actually seen a case. In fact, measles was declared eliminated from that country in 2000, largely because of the success of national policies to achieve 'herd immunity' through immunization with the MMR vaccine [5].

The clinical presentation and diagnosis of measles is predictable and straightforward, but certain individuals are more vulnerable and at risk off complications, several of which can be serious [2].

When measles was common, most children experienced a miserable few days of illness but then recovered. When complications occurred, ear infections (otitis media) and croup (laryngotracheobronchitis) were most common. Pneumonia due to the measles virus itself and a secondary bacterial infection was much more serious and the main reason a child would die [5]. When brain inflammation (encephalitis) developed, this serious complication often caused brain damage and one form could develop many years after the original infection especially in children who became infected at a young age.

Children who are malnourished, especially those who are Vitamin A deficient, and older adults who are not immune are at particularly risk of infection; blindness may occur in these children and complications involving diarrhea and/or pneumonia can be fatal.



Other groups who are more likely to have severe infection and be at higher risk of complications include the following [2].

1. Infants and children < 5 years of age.
2. The elderly
3. Pregnant women.
4. Patients with compromised immune function.

It is important to diagnose cases of measles as soon as possible so that the infected child can be isolated from contact with others to minimize the risk of infection spreading. Diagnosis is based on the medical history and findings on examination of the patient.

The history will tell you if the child is immune based on a history of previous infection or prior immunization, and if there has been exposure to someone with known infection.

The clinical features of measles are usually obvious and the evolution of infection follows a predictable course.

The incubation period from the time of exposure to infection to the onset of symptoms is 8-12 days. The first signs of infection (the prodromal period) are fever, cough, runny nose and irritated watery eyes (coryza and conjunctivitis). Fever increases over 2-4 days, and can be as high as 40 °C as high; the child is usually miserable, appears ill, and complains that the light hurts their eyes (photophobia). The most characteristic (and diagnostic) feature of measles develops during this period – shiny spots that look like white grains of salt surrounded by a bright red ring seen in the mouth on the inside of the cheek (buccal mucosa) often close to the upper molar teeth - these are called Koplik spots [7]. (Dr. Koplik was an American pediatrician who described the spots in the 1890's); importantly Dr Koplik recognized these spots were characteristic of measles infection, and also noticed that they faded before the skin rash of measles develops. So, as well as their significance as a way of diagnosing measles, Koplik spots also help us to control outbreaks. This is because at the time when we see them the disease has not reached its most infectious phase, so we can isolate the child and reduce the risk of others becoming infected [8]. However, patients are progressively more infectious from when their prodromal symptoms begin, until they become no longer contagious 48 hours after the rash appears.

The skin rash is red often with raised areas (maculopapular); it usually begins on the head, becomes confluent over the face and then spreads downwards to involve the chest and back and then the extremities over the next 3 days. When it fades it does so in the same head-to-toe sequence. In patients with dark skin the rash is not so easy to see, but remember the Koplik's spots are just as obvious in a dark-skinned child as in anyone else, and the child's parents will have noticed the rash.

Variations on this typical presentation include:

1. Longer, higher or recurrent fever where a bacterial infection (e.g. ear infection or pneumonia) develops as a complication
2. The characteristic rash may not develop or be modified in patients who have a compromised immune system (e.g. children on immune-suppressants or with leukemia or HIV)

Natural infection or two doses of MMR vaccine provides protection that is usually life-long. Two doses of vaccine are 97%-98% effective; one dose is 90%-93% effective. When doing health checks on children ask to see vaccine records to make sure two doses of vaccine were given; this is good evidence of immunity.

Two doses of MMR vaccine administered after 12 months of age are required for full protection, but children can get the second dose as early as 28 days after the first dose, so it's not necessary to wait until children are 4-5 years of age.



ICASH

Research for Better Society

Health promotion requires the participation of people and their communities to improve and control conditions for health

We can all participate in health promotion regarding preventable infectious diseases by learning to recognize the signs and symptoms of infection, and how to prevent infection through quarantine and immunization. We all have a responsibility to improve the health of the society we live by promoting knowledge, attitudes and action that achieve this.

As health care providers, educators, parents and as ordinary members of society we can share information and give advice. Information and advice can be shared in many ways, including when we deliver well-child preventive care, or are involved in campaigns to promote awareness of the need for and benefits of immunization. The primary aim of promoting health in this context is to increase the number of children in our community who are protected against common childhood infectious diseases.

There is a large body of literature which shows that immunization programs are the most effective way to prevent infectious diseases on a broad scale. Since immunization has become available countless children's lives and massive amounts of money have been saved by preventing diseases like polio, diphtheria tetanus and smallpox [9,10], and measles immunization is estimated by WHO to have saved more than 20 million lives since the year 2000 alone. The global relevance of promotion of vaccination is also emphasized by the central place of immunization in the policies of the World Health Organization, and the fact that agencies such as the Gates Foundation consistently list advances in the formulation and availability of agents used to protect children among their top funding priorities.

But as we all know, rates of child immunization are falling worldwide, leading to a rise in the number of individuals vulnerable to infection, which in turn increases morbidity and mortality from measles and the other diseases usually controlled by vaccinations. So, to participate effectively in health promotion we all need to understand the reasons for this. But as young people you are particularly well placed to find creative solutions for this problem that can be applied in the communities you live in. The kind of projects you have come to ICASH to report tell me that from the research you do and things you are interested in that in some cases solutions you find and evaluate could lead to policies that governments come to use. Remember that the best official policies are based on evidence-based practices identified through well conducted research.

As discussed in a recent editorial in the *Global Health Management Journal* (which I hope you all read and will consider submitting articles on your research to) people in many countries have important cultural and religious beliefs that influence their decisions about immunization [11]. You are better placed than anybody to understand these, and to bring your social and cultural maturity into the equation to help work through these issues and help people become positive about immunization.

In Canada where I come from and our neighbour the USA parents' main reasons for resisting immunization range from fear of possible dangers from vaccines to ambivalence about the need to immunize their children [12]. It is easy to have negative feelings towards such parents, particularly when the evidence for benefit is so overwhelming and for those of us that have seen infectious diseases the need is so compelling. But we must always remember that whatever concerns a parent expresses, it is the underlying belief that they must protect their children from harm that drives their decision making.

We also need to recognize that in spite of the amazing benefits of immunization, vaccines are not perfect. Like every drug, every medical intervention, that has a benefit also they carry a risk of harm. For this reason, 19 countries worldwide have compensation plans for vaccine injuries, an approach based on the legal principle of reciprocity [13]. Citizens are urged (and I some case must because of government policies) to comply and get their children immunized for the greater good of the community

(Yes, that ‘her immunity’ argument again). So, in the rare instances when an individual child is harmed, he or she should be compensated by the society they live in.

But consider the numbers. Such payouts do not prove vaccines are unsafe; since 2006 more than 3.2 billion doses of vaccines have been given in the USA. IN that period, the US vaccine injury compensation program received 6,293 claims, for reasons that ranged from fainting to brain injury, 4,311 were compensated. In 70% of cases there was no evidence to support that the harm claimed to have happened was caused by a vaccine, but claimants are (rightly) given the benefit of the doubt anyway. In short, the rate of injury for illness attributable to vaccines is one in 4.5 million. We would have difficulty finding a less dangerous medical act [13]

Another big issue globally is that miss-information about vaccines and immunization is a growing problem, largely because more and more parents choose to rely on their own research conducted through social media, where, as we all know, the information available ranges from excellent to wrong, with much in between that can be confusing, or in the worst cases is deliberately misleading. A 2015 survey in Canada on attitudes toward vaccines indicated more than one in four Canadians are hesitant or misinformed about vaccines [14]. This is a clear lesson that we all need to be part of the promotion of preventive health when it comes to immunization, and in particular must take every opportunity to provide parents who do not know the benefits with the facts they need and answers to questions they need answered.

So, having looked at health promotion from the standpoint of preventing infectious diseases how can we act to help translate research into policies and healthy practices?

A framework for future action can be viewed through the following dimensions [1]:

1. Working to achieve healthy public policies
Our ministries of health have a special responsibility to make, administer and promote public policies. But we must ensure that the necessary research is done to provide the evidence base for such policies to be informed and relevant, and that there is communication and engagement across the different sectors of government and the administrative agencies tasked with implementing them
2. Being partners and actors for health promotion
We must see our role and responsibility in health promotion and not leave this important role to others, and must work with all the available sectors of society to improve the health of the communities we live in - the communities themselves, our policymakers, the private commercial sector, our academic and research community, civic groups and committed non-government organizations (NGO’s).
3. Exploring new mechanisms and infrastructures for health promotion
Various kinds of mechanisms and infrastructure and traditional pathways have proved useful and for health promotion. But you are the next generation in the field and will bring new ideas and strategies forward that will change the discipline and generate change for the better. Just think of how you could harness social media to promote health, and how unexpected partners like celebrities and their music videos can generate for good for society [15]. And remember that you also need to find ways to be the reasoned voice against the many ways that unhealthy products and lifestyles are marketed in your community.

In summary: Your new ideas, and the innovative ways you create to communicate will be a powerful way to promote health and enhance health literacy, and that society needs you to collaborate to do research and translate the results into policies and practices.



ICASH

Research for Better Society

REFERENCES

1. Health Promotion – World Health Organization
<https://www.who.int/healthpromotion/conferences/6gchp/en/index.html>
2. Pavia AT. Never Seen Measles? 5 Things to Know. Medscape Pediatrics. May 02 2019
3. Sippel L, Kiziak T, Woellert, Klingholz R. 2011. Africa's demographic challenges. How a young population can make development possible. Berlin Institute for Population and Development, 1-80. ISBN: 978-3-9814679-0-1. http://www.berlin-institut.org/fileadmin/user_upload/Afrika/Africas_demographic_challenges.pdf (Accessed 10 June 2019).
4. Fine P, Eames K, Heymann DL. Herd Immunity. *Clinical Infectious Diseases*. 2011; 52(7):911-16
[doi:10.1093/cid/cir007](https://doi.org/10.1093/cid/cir007). PMID 21427399.
5. Centers for Disease Control. Measles cases and outbreaks, 2019
6. Goodson JL, Seward JF. Measles 50 years after use of measles vaccine. *Infect Dis Clin North Am*. 2015;29:725-743
7. Gershon AA. Measles virus (Rubeola). In: Bennett JE, Dolin R, Blaser MJ, eds. *Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases*. Philadelphia, USA. Saunders. 2015
8. Koplik H. 1896; The diagnosis of the invasion of measles from a study of the exanthema as it appears on the buccal mucous membrane. *Arch Pediatr*. 13: 918–22.
9. Andre FE, Booy R, Bock HL, Clemens J, Datta SK, John TJ, Lee BW, Lolekha S, Peltola H, Ruff TA, Santosham M. Vaccination greatly reduces disease, disability, death and inequity worldwide. *Bulletin of the World Health Organization*. 2008;86:140-6.
10. Worboys M. Vaccines: Conquering untreatable diseases. *Brit Med J*. 2007;334 (suppl 1):s19.
11. Sinaga DM. Vaccination: Considerations to acceptance and refusal. *Global Health Management Journal*. 2018;2(1):1-3
12. Dubé, E.; Laberge, C.; Guay, M.; Bramadat, P.; Roy, R.; Bettinger, J. (August 2013). Vaccine hesitancy: an overview. *Human Vaccines & Immunotherapeutics*. 2013. 9;(8): 1763–73.
13. Picard A. No, payouts don't prove vaccines are unsafe. *Opinion: The Globe and Mail*. May 21, 2019
14. Payne E. Survey raises concern about vaccine 'hesitancy' among Canadian parents, shows some harbour misinformation. *National Post* [Internet]. 2015 Dec 18. Available from:
<http://news.nationalpost.com/health/survey-raises-concern-about-vaccine-hesitancy-among-canadian-parents-shows-some-harbour-misinformation>
15. Macnab AJ, Mukisa R. Celebrity endorsed music videos: innovation to foster youth health promotion. *Health Promotion International*. 2018. <https://doi.org/10.1093/heapro/day042>



ICASH

Research for Better Society

ICASH-KEYNOTE

SYNTHESIS OF NANOMATERIALS AND ITS BIOMEDICAL APPLICATIONS FOR HUMAN'S HEALTH

Kanlaya Prapainop*

Department of Biochemistry, Faculty of Science, Mahidol University

*Corresponding author's e-mail: kanlaya.pra@mahidol.edu

EXTENDED ABSTRACT

Despite better healthcare system, there are increasing number of people suffering from various diseases such as cancers, cardiovascular diseases, diabetes, infectious diseases, Alzheimer's, Parkinson's etc. The disease is not only effect to the patient life, but also create the burden on the families and caretakers in term of personal and financial situations. Moreover, the poor health population can cause negative impact to the society for example problems in health care system management, reduction of workers due to illness and early retirement, reduction of productivity of business sectors, and reduction of economic growth of the country. Therefore, the society requires new technology to overcome this health challenge by improvement of protection, prevention, and treatment of the common diseases.

The emerging 21st century technology called "nanotechnology" has the potential to revolutionize human health. It is interdisciplinary involved the combination of knowledge in chemistry, biology, materials, medicine, pharmacy and engineering. This promising nanotechnology has potential to provide higher sensitivity, accuracy, safety and effectiveness but more affordable healthcare tools than the traditional methods. The definition of nanomaterials used in nanotechnology was given by European Union and National Nanotechnology Initiative as a materials with the size range between 1-100 nanometer. Due to its unique properties and small size, the development of nanomaterial is attractive in the area of diagnosis and treatment of several diseases.

High surface area and optical properties of nanomaterials allow the nanoparticles react with reactants or bio-substances at significant lower amount but provide higher optical signals than traditional approaches. These unique properties can lead to the discovery of sensitive and simple detection tools where it can detect even small biochemical changes in cellular level before it further develops to serious diseases. In addition, it can increase awareness for consumers to protect harmful chemicals that might contaminate in daily consumable products. For example the designing of quantum dots, highly fluorescent semiconductor nanocrystals, showed high sensitivity to detect benzoic acid and parabens which are food preservatives that some studies showed association with the risk of cancers.

The nanoparticles have potential not only for detection, but also for diagnosis applications. The nanomaterials with high contrast properties, biocompatibility and stability in biological systems can be used as an alternative method for biopsy. Even though biopsy is useful technique for diagnosis certain diseases by removal of tissue samples from the body, it can lead to other complications, high cost, and patient discomfort. The utilization of nanomaterials offers the possibilities of real-time monitoring of biological substances without requirement of invasive technique and still provide the information for early diagnosis or tracking the progression of disease. This methods would benefit to reduction of the surgery complications, recovering time, anxiety and the medical expense for patients. Not only the development of materials for early diagnosis is essential for health improvement, the effective treatment with lower side-effect is also desirable. There are several drugs that highly effective, however, its instability and hydrophobicity properties can limit their bioavailability to the target sites.



Using higher drug dose to increase the bioavailability is an alternative approach but it might lead to cytotoxicity and cause various side effects. Whereas using lower-dose of drug administration to compensate the toxicity level, requires higher frequency of the drug taking. Since nanoparticles have both hydrophobic and hydrophilic properties, therefore it can be used to encapsulate drugs, increase its bioavailability, and penetration into the cells.

Poly(lactide-co-glycolic acid) is one of the biodegradable and biocompatible polymer that widely studied for drug delivery carrier development. These polymeric nanoparticles can reduce the toxicity of the drug by control the rate of drug release to low toxicity level but still maintain the effectiveness of drug treatment. These control and sustain release properties of nanomaterials can be optimized from synthesis methods to obtain the desirable drug carriers. In addition, the free drugs can cause adverse effects from off-target which damage other healthy cells or tissues and cause various side-effects. Therefore, the drug carriers with ability to deliver the cargoes to specific cells and tissues are preferable. Thanks to various available surface functionalities of nanomaterials, the specific targeting of the nanocarriers can be achieved by functionalization with specific ligands, antigens, antibodies etc. to the target site e.g. cancer region, or inflamed organ. Therefore, tunable properties of nanoparticles have potential to develop as a smart drug delivery systems which can reduce unpleasant side effects from high toxicity and non-specificity of the drugs to the patients.

Even though, the applications of nanomaterials in medical fields are promising and give us a light on the improvement of human health and the quality of life, the safety of nanomaterials need to be validated before applying to human. There are still several steps ahead to improve the nanomaterials in medical applications, with the hope for the bright future, researchers worldwide are working toward the goal that would benefit to improve human health at individual and global levels.

REFERENCES

1. Nanomaterials definition matters. *Nature Nanotechnology*. 2019;14(3):193.
2. European Commission. Definition of nanomaterials 2011 [updated 04/12/2018]. Available from: http://ec.europa.eu/environment/chemicals/nanotech/faq/definition_en.htm.
3. National Nanotechnology Initiative. Nanotechnology 101: What it is and how it works. [Available from: <https://www.nano.gov/nanotech-101>].
4. Prapainop K, Mekseriwattana W, Siangproh W, Chailapakul O, Songsrirote K. Successive detection of benzoic acid and total parabens in foodstuffs using mercaptosuccinic acid capped cadmium telluride quantum dots. *Food Control*. 2019;96:508-16.
5. Mekseriwattana W, Srisuk S, Kriangsaksri R, Niamsiri N, Prapainop K. The Impact of Serum Proteins and Surface Chemistry on Magnetic Nanoparticle Colloidal Stability and Cellular Uptake in Breast Cancer Cells. *AAPS PharmSciTech*. 2019;20(2):55.
6. Mekseriwattana W, Srisuk S, Tantiapibalkun Y, Prapainop K. Preparation of superparamagnetic iron oxide nanoparticles and investigation of their interaction with cells. *ScienceAsia*. 2019;45(1):60-4.
7. Estelrich J, Sánchez-Martín MJ, Busquets MA. Nanoparticles in magnetic resonance imaging: from simple to dual contrast agents. *International journal of nanomedicine*. 2015;10:1727-41.
8. Sawasdee K, Choksawad P, Pimcharoen S, Prapainop K. Development of size-tunable polymeric nanoparticles for drug delivery applications. *Global Health Management Journal*. 2017;1(2):31-6.
9. Smolkova B, Dusinska M, Gabelova A. Nanomedicine and epigenome. Possible health risks. *Food and Chemical Toxicology*. 2017;109:780-96.



ICASH

Research for Better Society

ICASH-KEYNOTE

THE IMPLEMENTATION OF INTEGRATED-APPROACH ON GERD (I-AGE) PROJECT IN FISHERMEN AS A MODEL OF INTERRELATION OF RESEARCH-BASED HEALTHCARE AND TEACHING

Ahmad Fariz Malvi Zamzam Zein*

Departement of Internal Medicine, Faculty of Medicine, Universitas Swadaya Gunung Jati – Waled Hospital, Cirebon, West Java, Indonesia

*Corresponding author's e-mail: fariz_zein_dr@yahoo.com

EXTENDED ABSTRACT

The gastroesophageal reflux disease (GERD) is a huge burden of gastrointestinal disease in Indonesia, including high prevalence, different tools in diagnosis, limited resources, inadequate management (lifestyle modification and pharmacologic treatment), and reduced quality of life. The Indonesian Society of Gastroenterology has established national consensus of GERD in 2013 but the implementation of this consensus and the policy supporting this issue are inadequate.

To address how the implementation of population-based studies lead to improvement in healthcare and medical education, especially concerning GERD as the health issue, I want to state some main strategies elaborated in implementing evidence-based policy aimed at promoting diagnosis and management of GERD in Indonesia, especially in Cirebon. These are: 1). The establishment of integrated researches on GERD; 2). The dissemination of researches involving stakeholders; 3). The modules of healthcare and teaching on GERD; 4) Public education and community activities intended to modify lifestyle.

M. Nilsson, et al.¹ stated that lifestyle has important role as related factors in the etiology of GERD. Further, the increasing prevalence of GERD in some ethnic groups or races may suggest cultural changes as responsible factors.² Sodaif D., et al.² revealed that the prevalence of GERD in general population of South-East Iran is 28% while related risk factors are sedentary lifestyle, tea consumption, and low consumption of vegetables, fruits, cereals, meats, and nuts. reported Sushil K., et al.³ reported that the prevalence of GERD in a high altitude area in India is 18.7% with related risk factors are sedentary lifestyle, high consumption of meat, low consumption of salted tea, and low consumption of fresh fruits.³ M Nilsson, et al.¹ reported that tobacco smoking and table salt intake seem to be risk factors for GERD in Norway population while alcohol, coffee, and tea do not seem to be risk factors for reflux. This difference may indicate some situations, those are confounding variables and population-specific risk factors due to their characteristics of habit and environment.

In my research, a cross-sectional study investigated the prevalence and lifestyle-associated risk factors of GERD among 168 fishermen. We used validated GERD questionnaire (GERDQ) with a symptoms score of at least 8 was considered as GERD. The prevalence of GERD among fishermen was high (22.6%). We identified that smoking, high-salt intake, jamu consumption, and nonsteroid anti-inflammatory drugs (NSAIDs) consumption are lifestyle-associated risk factors for GERD. Tea consumption, coffee consumption, and lalap eating were not associated with GERD in my study. This



ICASH

Research for Better Society

finding attenuate the nonpharmacologic management in reducing the reflux symptoms and promoting quality of life.

With the support from Department of Health, Regency of Cirebon and Faculty of Medicine, Universitas Swadaya Gunung Jati, we will formulate this finding into integrated-approach on GERD (I-AGE) Project. This project encompasses the module of the nonpharmacologic approach in prevention and management of GERD, the diagnosis and management of GERD in primary health care, the referral system of GERD, the diagnosis and management of GERD in hospital, and learning module of GERD for medical students. Further, the researches on GERD are still continuing to evaluate the burden of disease and the adequacy of its management.

REFERENCES

1. Nilsson M, Johnsen R, Ye W, Hveem K, Lagergren J. Lifestyle related risk factors in the aetiology of gastroesophageal reflux. *Gut*. 2004;53:1730-5.
2. Darvishmoghadam S, Zahedi MJ, Hayatbakhsh Abbasi MM, Haghdoost AA, Khalilyzade M, Karimi Goughari E. Review of clinical spectrum of gastroesophageal reflux disease in a general population; a study from South-East Iran. *Middle East J Dig Dis*. 2016;8:310-7.
3. Kumar S, Sharma S, Norboo T, Dolma D, Norboo A, Stobdan T, et al. Population based study to assess prevalence and risk factors of gastroesophageal reflux disease in a high altitude area. *Indian J Gastroenterol*. 2011;30(3):135-43.



ICASH-KEYNOTE

THE EFFECT OF ASPHYXIA ON THE QUALITY OF LIFE OF CHILDREN AGED 2-4

Yuni Kusmiyati*

Poltekkes Kemenkes Yogyakarta, Indonesia

* Corresponding author's e-mail: yuni_kusmiyati@yahoo.co.id

EXTENDED ABSTRACT

Asphyxia is a condition of air exchange disruption that occurs as a result of the failure to start and maintain breathing during birth. The World Health Organization (WHO) estimates that approximately 3% of about 120 million neonates born each year in developing countries develop asphyxia and need resuscitation. Children who survive asphyxia may experience long-term morbidity that causes low quality of life. The aim of this study was to measure the quality of life of children aged 2-4 years who were born with asphyxia in Indonesia.

A retrospective cohort design studying preterm babies born. Asphyxia was assessed based on positive pressure ventilation resuscitation status and APGAR score in the 5th minute, while children's quality of life was assessed using the Pediatric Quality of Life Inventory™ (PedsQL™) 4.0 Generic Core Scale for 2-4- year- old children.

Asphyxia had a meaningful effect on the quality of life in children. The association strength was quite strong with a OR 3.5. The results were support previous research, which stated that children with asphyxia were at a higher risk of poor motor quality and nerve disorders compared to children without asphyxia. A biologically plausible mechanism for this relationship could be that newborns with asphyxia experienced oxygen deficiency, and therefore metabolic acidosis and over-production of Reactive Oxygen Species (ROS) occurred. This can cause cell damage to some vital organs, in particular brain cells. Lack of oxygen at birth can have long-term effects for the infant. Hypoxia, or reduced oxygen to the brain, can cause long-term disabilities and developmental delays. The results showed the influence of asphyxia on children's physical and social functioning. Preterm babies who suffer from birth asphyxia tend to experience problems with physical functions such as walking, running, playing, bathing, and lifting heavy objects and also experience aches and fragile bodies.

The brain cell damage mainly occurs in the frontal and parietal lobes. The damage to the frontal lobes would disturb motor functions (movement), leading to children with asphyxia having problems with their physical function. The damage to the parietal lobe, which is located behind the frontal lobe, would manifest as somato sensory disturbances, causing a feeling of aches. Damage to the cerebellum would disturb the child's ability to walk, run and maintain balance. Physical functional disturbances strongly affect children's social function. Children who experience physical and emotional disturbances would also experience disturbed social functions. Emotions significantly affect a child's social interactions. Through developing their emotions, children learn to change their behavior to adapt to social demands.

Keywords: *asphyxia, quality of life, children*



ICASH-KEYNOTE

THE ROLE OF HEALTH POLYTECHNIC OF PALANGKA RAYA AS A LEADING CENTER FOR ADOLESCENT HEALTH IN CENTRAL KALIMANTAN

Dhini*

Poltekkes Kemenkes Palangka Raya (Palangka Raya Health Polytechnic), Central Kalimantan, Indonesia

* Corresponding author email: dinpraya@gmail.com

EXTENDED ABSTRACT

Adolescence is a transitional period in the span of human life, connecting childhood and adulthood. In this period there were major and essential changes regarding the maturity of spiritual and physical functions. Teenagers are often considered as a healthy group. Nevertheless, many teenagers die prematurely due to accidents, suicide, violence, complications related to pregnancy and other diseases which actually may be prevented or treated. Many teenagers also suffer from chronic pain and disability. In addition, many serious diseases in adulthood are rooted in adolescence, especially when they engaged to following risk factors: smoking, sexually transmitted infections including HIV, poor eating habits and sedentary lifestyles.

Healthy lifestyle starts from the early age may create productive and high-quality human resources in the future. In the period of adolescence, physical health reaches its optimal point and it will picture the health patterns in adult population in the following decades. Globally, a quarter of worldwide population are people aged 10-24 years, in which 70% of them live in low-income countries. Therefore, it is very important for countries to engage with young people and be able to meet their health needs. Recent strategy to deal with adolescent problems is by maintaining the quality of health services.

Accordingly, Health Polytechnic of Palangka Raya participate to provide a friendly and healthy environment for adolescents through its leading center named "Pusat Unggulan Kesehatan Remaja". This youth care and service center provides a wide range of health service in midwifery, nursing and nutrition areas. Various activities have been conducted in coordination with governments, stakeholders and community, such as:

- 1. Community services*
 - a. Mentoring peer counsellors to prevent anaemia in high school students*
 - b. Early Detection Package Assistance (HVP Immunization, early detection of breast cancer in adolescents)*
 - c. Health education activities on menstrual disorders*
 - d. Detection of signs and symptoms of depression in adolescents*
 - e. Development and capacity building of Information and Counselling Center for Youth*
 - f. Sex education for high school students (introduction of reproductive organs)*
 - g. Understanding the contents of Nutrition Fact Label on food packaging and how to read it*
 - h. Screening and monitoring teenage girls with dysmenorrhea*
 - i. Education in Preventing Diabetes Mellitus among high school students*
- 2. Scientific researches*
 - a. Investigating the use of educational teaching aids (modul) to prevent anemia*
 - b. Developing an Android-based health promotion model of sex education for adolescents*



ICASH

Research for Better Society

c. *Investigating the effect of Karungut, traditional musical rhyme of Dayak people to prevent anxiety in adolescence pregnancy.*

d. *Monitoring nutritional status and menstrual cycle of teenagers in Palangka Raya*

3. *Commercialization of local based products*

As one of top ten the best leading center in Indonesian Health Polytechnic, it is expected that the outcomes of those activities will improve the health status and quality of life of adolescents, especially in Palangka Raya, Central Kalimantan. When possible, our institution aims to become the center of adolescent health studies in Indonesia. Moreover, it is targeted to be the national standardized reference for adolescent health.

However, this is impossible to be fulfilled without a good cooperation from government, stakeholders and community in Indonesia and cross-country. Networking is another key to solve health problems in our future young generation. Adolescents' health must be one of a country's priorities and concerns.



ICASH

Research for Better Society

ICASH-KEYNOTE

NEGLECTED TROPICAL DISEASES: FOCUS IN INDONESIA

Suharyo Hadisaputro*

Postgraduate Program, Poltekkes Kemenkes Semarang (Semarang Health Polytechnic), Indonesia

*Corresponding author email: felisiasantoso@yahoo.com

EXTENDED ABSTRACT

Neglected Tropical Diseases (NTDs) in the world are : Protozoan infections (African trypanosomiasis, Chagas Disease, Leishmaniasis), Bacterial Infections (Buruli Ulcer, Leprosy, Trachoma), Helminth Infections (Ascariasis, Hookworm Infection, Trichuriasis, Schistosomiasis, Lymphatic Filariasis, Onchocerciasis, Dracunculiasis), Dengue, Yaws, and Fascioliasis.

They are named neglected because these diseases persist exclusively in the poorest and the most marginalized communities, and have been largely eliminated elsewhere and thus are often forgotten. Most can be prevented and eliminated. They thrive in places with unsafe water, poor sanitation, and limited access to basic health care. They cause severe pain and life-long disabilities and are often less visible and have a low priority. They are mostly concentrated in settings of extreme poverty in remote rural areas, in urban slums or conflict zones and thrive in conditions of impoverishment. People in remote areas often become ill or die before the disease can be diagnosed. Neglected tropical diseases are now on the international agenda.

The successes achieved to date prove that the interventions are technically feasible, immediate, visibly powerful and highly cost-effective. They demonstrate that programmes to tackle NTDs can be, and must be rapidly scaled up.

WHO recommends five public-health strategies for the prevention and control of neglected tropical diseases: Expansion of preventive chemotherapy; Intensified case-detection and Case management; Improved vector control; Appropriate veterinary public health measures; Provision of safe water, sanitation and hygiene.

NTDs in Indonesia are Lymphatic Filariasis, Soil Transmitted Helminthiasis (Ascariasis, Ancylostomiasis, Trichuriasis), Leprosy, Yaws (Framboisia), Dengue, Schistosomiasis, and Trachoma. Leprosy, one of the few diseases which can be eliminated. Leprosy meets the demanding criteria for elimination, practical and simple diagnostic tools; can be diagnosed on clinical signs alone. Indonesia prevalence of leprosy (2017) is 6.1 / 100.000 people and disability value 10,4%; the availability of an effective intervention to interrupt its transmission : multidrug therapy; a single significant reservoir of infection: humans.

Lymphatic Filariasis : mosquito-borne disease (Anopheles-Aedes spp), 90% cases Wuchereria bancrofti; Clinical symptoms are fever, progressive lymphatic inflammation, acute or chronic severe swelling of extremities, breast, hydrocele (men), secondary bacterial infection. Human Filariasis transmitted by many vectors : Culex fatigans, Mansoni, Anopheles and Aedes mosquito. Until 2013 in Indonesia cumulative number of clinical chronic cases reported is 12.066 spread on 378 municipalities with prevalence rate average (Mf rate = 19,78). Population at risk in endemic areas is around 123.478.265 people. Strategy for elimination are interrupt transmission through MDA every year for 5 years in endemic areas. Mass drug administration of human filariasis are Diethyl Carbamazine Citrate (DEC) 6 mg/kgBB and Albendazole 400 mg : once a year for minimum 5 years for all people > 2 years old . Others strategies are to prevent and reduce disability through morbidity control.



The Unholy Trinity are Ascariasis (Roundworm), Trichuriasis (Whipworm) and Hookworm Infection. Soil Transmitted Helminths (STHs) part of development occurs in the soil average 3-4 weeks in soil until infective. Infection via egg in contaminated soil (Ascariasis, Trichuris) or skin penetration (hookworm). General facts about STHs are frequently non specific symptoms, often asymptomatic until worm burden becomes large, weight loss, gastrointestinal discomfort, diarrhea less common, fever from nematodes very uncommon, polyparasitism. Worm classified as a parasite; contaminate food, water, air, feces, pets, wild animals, toilet seats and door handles; strategy of prevention are frequent hand washing, frequent cleaning of bathrooms and kitchens, thorough cooking of beef, pork, sausage, and bear meat.

Roundworm : Ascariasis lumbricoides, largest of nematodes infecting humans, adult habitat in small intestine (jejunum), obligatory extra-intestinal migration (eosinophilia), intensity of infection greatest in children age 5-10 years. Whipworm (Trichuris trichiuria), adult habitat in cecum and colorectum, no extra intestinal phase, lifespan 1-3 years, 90% infection are asymptomatic, symptoms with heavy infections-intensify of infection peaks by age 10. Clinical features :physical weakness, anemia stunted growth, cognitive deficits, stool frequency (12 + /day, trichuris dysentery syndrome, trichuris colitis, rectal prolapse.

Hookworm (Necator americanus & Ancylostoma duodenale), one-tenth the worlds population infected, significant cause of anemia and protein malnutrition, adult habitat in small intestine, life span 1 year (A.duodenale) and 3-5 years (N.americanus), clinical feature are ground-itch in primary infection, abdominal discomfort, progressive iron – deficiency anemia (>> 140-160 worms associated with the anemia (HB < 11 gr/dl), failure to thrive, extreme fatigue, missed schooling, IQ loss. At – Risk population hookworm Disease : women and children (Physical growth stunting, cognitive deficits and intellectual retardation), women of childbearing age : puberty, pregnancy : increased maternal mortality (anemia), low birthweight and infant mortality.

Dengue is Arbovirus Infection : Arthropode-borne-viruses, causes 4 type dengue virus, in Indonesia mostly Den-2 (65%) and than Den-3 (15%); Den-4 (12%) dan Den-1 (8%). Characteristic of vector dengue/dengue haemorrhagic fever are : Anthrophophilic, Multiple bitter; Blood for reproduction. Main Vector are Aedes aegypti; Co-vector Ae. albopictus; Ae.polynesiensis. The Ministry of Indonesian Health reported has the largest number of dengue patients among the ASEAN region, more than 150,000 people were infected, case fatality rate is 1-2%, mostly children or young people.

The Community Directed Intervention (CDI) can be used to extend approach intervention in communities poorly served by existing health infrastructure, empower communities to look after their own health and promote health-seeking behaviour and awareness of other health issues.

Keywords : *Neglected Tropical Diseases, Soil Transmitted Helminths, Leprosy, human filarisis, Dengue, CDI*



ICASH

Research for Better Society

ICASH-KEYNOTE

TRANSLATING FUTURE MILLENNIAL: STRUCTURING DISRUPTIVE HEALTHCARE

Adang Bachtiar^{1,2,*}

¹Director, Center for Health Administration and Policy Studies (CHAMPS), Universitas Indonesia;

²Chairman, Advisory Board of Indonesian Public Health Association (IPHA)

* Corresponding author email: adang@post.harvard.edu

EXTENDED ABSTRACT

All sectors including health sector predict the future as the Millennial work force and in many ways, the future is now.

By 2020, Millennials (those born between about 1980 and 2000) are forecast to comprise 75 percent of the global workforce. Some reports have already mentioned that Millennials make up over two thirds of their entire employee base.

They are the replacement of Baby Boomer generation, and they bring new working norms, such as

More workplace tech

Millennials grew up with technology, mobile apps, and frequent disruptive innovative platforms. They're very fluent in computer and internet things. The future is clear, i.e., more devices and technologies as Millennials take over the workforce. Expect to see in-person meetings decline as video conferencing continues become more popular. In a study of Millennial executives, Cisco found that 87 percent believe video has a significant and positive impact on an organization. Expect to be the expert of social media interactions such as WhatsApp groups with thousand active members. Welcome to digital disruptive marketing agenda in health care industry.

Collaboration will be the norm

Millennials are also experts at using social networks to share ideas and innovations. Teamwork is important to them -- a study by IdeaPaint discovered that 74 percent of Millennials prefer to collaborate in small groups, and that 38 percent of Millennials feel that outdated collaboration processes actually damage their company's innovation. Further a study by Champs FPHUI showed that health professionals within WhatsApp groups develop FISH principles, i.e., Financially improved-Intellectually capacitated quickly-Spiritually engaged in community services-and Happiness for everyone, effectively than non-WhatsApp group.

Flexibility, flexibility, flexibility

Speaking to emerging needs for independence and employee/employer trust, company culture will start to bend towards flexibility. According to a Deloitte study, nearly 75 percent of Millennials believe that a "work from home" or "work remotely" policy is important. Time to get that home office ready. More dental health professionals consider private clinics is their future



ICASH

Research for Better Society

In the coming years and decades, the tools you use at the office will change, and so will workplace culture. The physical layout of your office may transform -- in fact, companies may eliminate offices all together. But have no fear -- change can be a good thing, and it's how every organization progresses. Including yours.

The critical questions are:

What will it mean to be a healthcare system? To the health care professionals? The answers to these and other related questions will shape a digital society.

What are the new institutions that will be the pillars of this new digital society?

What will it take to build these institutions, who will do it, and why?

What is a new institution and why is it important now?



ICASH

Research for Better Society

ICASH-KEYNOTE

BRINGING MEDICAL GENETICS TO THE PUBLIC: THE CHALLENGES FOR INDONESIAN MEDICAL FACULTIES

Catur Setiya Sulistiyana*

Dean, Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

* Corresponding author email: catursetiya@yahoo.com

EXTENDED ABSTRACT

Medical genetics is one of the most rapidly advancing fields of medicine, and molecular genetics is now integral to all aspects of biomedical science. Every physician who practices in the 21st century must have an in-depth knowledge of the principles of human genetics and their application to a wide variety of clinical problems.

Millions are currently affected by hereditary diseases around the world. Statistical analysis showed about 5% of all pregnancies carries a child having abnormalities including genetic disorders, congenital malformation or significant disability. It is estimated that 43% of patients with mental retardation are caused by monogenic disorders or chromosomal anomalies. In developed countries, fully or partially inherited diseases account for about 45% of admission in paediatrics in hospitals. In developing countries, around 25% of prenatal and infant mortality are caused by hereditary diseases and most death-causing non-infectious disease probably have a genetic component.

Medical genetics is targeted to provide service to people with genetic or inherited conditions and their families with the final goal of helping individuals and their families to cope with their conditions and get the necessary support to live a life as normally possible. Currently, there are no medical school in Indonesia that specializes in genetics in the undergraduate level and with the population that ranked 4th worldwide, the amount of individuals affected by genetic and inherited conditions in Indonesia is very large and most of them are not identified due to underdiagnoses and lack-of-knowledge by the primary health care provider.

In the United States, medical genetics has been incorporated into medical school curriculum for a number of years. In 2001, the American Society of Human Genetics (ASHG) and the Association for Professors in Human and Medical Genetics (APHMG) issued the "Medical School Core Curriculum in Genetics". In 2009, the American Association of Medical Colleges (AAMC) and the Howard Hughes Medical Institute (HHMI) formulated competency-based curriculum that were required for future physicians. Accreditation Council for Graduate Medical Education (ACGME) and American Board of Medical Specialists (ABMS) then emphasizes medical graduates on competencies such as, medical knowledge, patient care, interpersonal and communication skills, practice-based learning and improvement, professionalism, and system-based practice. In 2013, the ACGME/ABMS broad competencies were used by the Association of Professors of Human and Medical Genetics (APHMG) to specifically apply the AAMC-HHMI standards to medical genetics education as well as to update their recommended genetics and genomics competencies.



The resulting APHMG core-curriculum focuses on developing basic and applied empirical skills in genetics for medical students and emphasizes on making appropriate decisions on ordering particular molecular tests for patients, understanding how to use bioinformatics tools as part of diagnosis and treatment decisions, managing patient symptoms, and making appropriate referrals to specialists-ethically and professionally. The APHMG curriculum competencies includes, but not limited to: 1. Knowledge in genome organization/gene regulation, 2. Genetic variation, 3. Population genetics, 4. Principles of inheritance, 5. Cytogenetics and molecular genetics, 6. Biomedical genetics, and 7. Cancer genetics.

University of Rochester School of Medicine and Dentistry in the United Kingdom has genetics in medical school curriculum based on the 2001 ASHG/APHMG-recommended “Medical School Core Curriculum in Genetics” and believed that medical genetics must be explicitly included in the curriculum. Following their medical school curriculum reform in 1999, URSMD formulated the Double Helix Curriculum (DHC) which emphasizes on the “intertwining strands” of basic and clinical science education throughout their four-year curriculum. The medical genetics curriculum at URSMD was constructed to adhere to the ASHG/APHMG guidelines. The first year medical students were exposed to the basics of genetics such as taking family history, molecular genetics, the central dogma, population genetics and genetic anthropology, basic clinical genetics, and “omics”. The integration continues to the second year with topics in neurogenetic disorders, pathogenesis of various genetic disorders, prenatal diagnosis and artificial reproductive technology, as well as the opportunity to experience practical clinical cytogenetics and practical molecular diagnostics. The third year of the curriculum includes integrative clinical genetics with topics in infertility, epigenetics, teratology, genetics of developmental pathways, and hands-on syndrome diagnosis exercise. The final year of the curriculum emphasizes on clinical genetics and writing a grant proposal for research involving genetic approaches.

At Faculty of Medicine Universitas Swadaya Gunung Jati (FMUGJ), integration of genetics into the 3.5-year pre-clinical and 2-year clinical medical curriculum will start shortly. The curriculum will include teaching of basic genetics in the first year. The second year follows up with genetic disease caused by mutations and chromosomal abnormalities. The third year will include dysmorphology, physical examination for genetic and inherited conditions, and updates on the latest cytogenetic and molecular techniques. The material will be delivered through a mixture of lectures, problem-based learning and practical skills lab.

In conclusion, medical genetics services must be established at all levels of health care and spear-headed by primary-care physicians. The challenge is to formulate a medical genetics curriculum that give genetics knowledge to future medical students to be functionally applied in a local and national settings. Therefore, it is very important for medical schools to integrate their curriculum with genetics in order to follow with the rapidly-expanding advancing field and answering the ever-growing challenge of diagnosis and providing care to those affected by genetic and inherited conditions.



ICASH-A001

AN EVALUATION OF VIDEO MATERIALS WITH A HEALTH-RELATED MESSAGE AVAILABLE IN INDONESIA

Ronald Mukisa¹, Doni Marisi Sinaga², Andrew Macnab^{1,2,*}

¹ Stellenbosch Institute of Advanced Study, Wallenberg Research Centre, 10 Marais Street, 7600 Stellenbosch, South Africa

² Yayasan Aliansi Cendekiawan Indonesia Thailand (Indonesian Scholars' Alliance), Semarang, Indonesia

³ University of British Columbia, Vancouver, Canada

*Corresponding author's e-mail: ajmacnab@gmail.com

ABSTRACT

Background: A core component of health promotion involves education. When we educate children and their parents about health, we need to use words that they can understand and ways to teach them that they find interesting. In schools in Uganda we have found that many children learn important facts from music videos recorded by celebrities that include a health message. This study looked at video material with a health message that is available on-line in Indonesia for those involved in health promotion to use to educate parents and children.

Methods: A google question was generated and the videos the respondents suggested were then viewed on YouTube to identify the health topics that they contained. From this search, the availability of other videos with similar or related messages was evaluated.

Results: Nine respondents suggested videos with a health message; 8 were female and 1 male, all had a bachelor's or master's degree. Four of the videos identified contained general health related messages, the remainder were specific to one of two areas, handwashing and hygiene (3) or tooth brushing and oral health (2). Importantly, when viewing these videos, a large number of related videos in various formats (message for adults/parents, message for children, educational material, songs, cartoons) were cross linked with the targeted video.

Conclusion: In Indonesia, a broad range of videos exist that can be used either to educate parents and children about the key health topics that these videos cover, or to act as a model for producing similar materials for newly identified health promotion issues. Engaging and educating parents and children is an important health promotion strategy and community empowerment approach to improving the determinants of health.

Key words: education, handwashing, health promotion, oral health, videos



ICASH

Research for Better Society

ICASH-A002

FACTORS AFFECTING WORK PERFORMANCE OF FAMILY PLANNING FIELD WORKERS OF NATIONAL AGENCY OF POPULATION AND FAMILY PLANNING (BKKBN) IN EAST JAVA PROVINCE, INDONESIA

Mahendrawan Nugraha Aji Pratama, Poschanan Niramitchainont

Educational Management, Faculty of Social Sciences and Humanities, Mahidol University, Thailand

Corresponding author's e-mail: mahendrawan.nap69@gmail.com; poschanann@gmail.com

ABSTRACT

Background: In a company or institution the most important asset is human resources. One of the functions of human resource management is training and development. The problem of family planning field worker in East Java Province that often faced is during the implementation of training activities, trainees showed high enthusiasm. However, based on data from BKKBN of East Java Province through Radalgram (program control meeting) in August 2018 explained that their performance achievements were still 73,41% of target more than 90%. This research was conducted at East Java Province to get an overview of the factors that affect the work performance of family planning field workers.

Methods: The research design was a quantitative method used surveys. Measurement tool of this research is a questionnaire. The data were analyzed using descriptive statistics, Pearson's Correlation, Stepwise Multiple Regression analysis.

Results: Overall of the level of importance of factors affecting work performance of family planning of BKKBN in East Java Province, Indonesia were at high levels. The finding also revealed that there was a positive correlation between personal factor, training factors, organizational factors, and work performance. Teaching techniques had the highest influence on work performance, it could predict 38.6% of work performance. The second factor that effects work performance was self-directed learning which is could increase the prediction rate by 7.5 %. Furthermore, the third factor that affects performance is organizational support, then the fourth and fifth factors are curriculum and training facilities that could increase the predictive rate of 3.7%, 1.8% and 1.0% respectively.

Conclusions: Based on the result of this research, the highest influence factors to the work performance of family planning field workers of BKKBN in East Java Province, Indonesia are teaching techniques. The second highest factor is self-directed learning, then the third factor is organizational support. Other factors that affect performance in fourth and fifth are curriculum and training facilities. The researcher suggest that BKKBN pay more attention to facilitators so they can add competency in teaching, support family planning field workers by providing online learning programs and library. Moreover, BKKBN is expected to be able to make policies that provide fair assesment and appreciation for family planning field workers who have good performance. In addition, BKKBN should design a curriculum that is up to date and in accordance with the content of the training program, revitalizing training facilities in education and training center, so that family planning field workers are more comfortable to learn both independently and in groups. BKKBN expects that every family planning field workers to always learn independently and improve their competence in order to create innovative activities in carrying out work tasks in the area..

Keywords: Family planning field workers, self-directed learning, training, perceived organizational support, work performance



ICASH

Research for Better Society

ICASH-A003

**ASSOCIATION AMONG STATIN, TELOMERE LENGTH AND
CARDIOVASCULAR DISEASES**

**Sanjeev Bijukchhe*, Ronny Isnuwardana, Sasivimol Rattanasiri, Kunlawat Thadanipon,
Ammarin Thakkinstian**

*Section for Clinical Epidemiology and Biostatistics, Faculty of Medicine, Ramathibodi Hospital,
Mahidol University, Bangkok, Thailand*

*Corresponding author's E-mail: smbijukchhe@gmail.com

ABSTRACT

Background: Recent evidence has shown associations between cardiovascular diseases (CVDs) and telomere length (TL). Many factors affect telomerase activity (TA) and TL, and statin was recently found to be associated with TA and TL. This systematic review and meta-analysis was conducted to summarize the evidence on the effect of statin on TA and TL, and update the knowledge of association between TL and CVDs. Primary objective is to determine the effect of statin on TA and TL; Secondary objective, to assess the associations between TL and CVDs.

Methods: The MEDLINE and Scopus databases were searched to identify eligible studies and extracted data. Meta-analysis was done to see effects of statin on TA/TL [i.e., standardized/unstandardized mean difference (SMD/USMD)] and TL on CVDs using random-effects and fixed-effects model according to heterogeneity assessed by Q test and I^2 .

Results: Five and 18 studies were selected for the primary and secondary objectives, respectively. Pooled TA showed effect of statin on TA with SMD [95% confidence interval (CI)] of 1.90 (1.16, 2.64) TA. However, no significant effect on TL was seen. Increased risk of CHD among participants with shorter TL was estimated by a pooled risk ratio of 1.58 (1.19, 2.09). However, pooled hazard ratios (HRs) for CHD and stroke were non-significant; but shorter TL was significantly increased risk for unspecified CVDs with pooled HR of 1.33 (1.04, 1.70).

Conclusions: Our study showed association between statin and TA, but not for TL. In addition, shorter TL is more likely to be higher risk for CHD and unspecified CVDs. However, results were still inconclusive based on different pooled parameters. More studies are required to confirm the association of statin with TL, possibly to elucidate its protective effect on CVDs.

Key words: Telomere, Telomerase, Statin, Cardiovascular diseases



ICASH

Research for Better Society

ICASH-A004

**FACTORS AFFECTING GRADE 11 STUDENTS' ACHIEVEMENT IN
LEARNING POPULATION EDUCATION IN SCHOOL POPULATION
AWARENESS, INDONESIA**

Andi Pancanugraha, Arisara Leksansern

Educational Management, Faculty of Social Sciences and Humanities, Mahidol University, Thailand

*Corresponding author's e-mail: andipanca84@gmail.com; drarisara@hotmail.com

ABSTRACT

Background: School population awareness program (SSK) is a school program of teaching and learning strategies of population education developed at school level with the pilot project in Sukabumi, Indonesia. Prior this study, there was no research had been conducted to see the effectiveness of the program from the perspective of the students, on how the students perceived, their learning achievement, and whether the teaching and learning population under the SSK program contribute as the factor affecting learning achievement, which all of this could draw a conclusion whether the SSK program effective for students. Further, it would also give a valuable input for teacher and school sectors on how to improve the students' learning achievement. This study has a purpose to investigate the attitude of student toward five aspect of learning situation of population education, which are the subject, method of teaching, activity of teaching, media of instruction, and class environment. Students' learning achievement was also assessed in this study including the factors that affecting the students' learning achievement in population education

Methods: A descriptive cross-sectional study was applied using a quantitative research method. The sample size was 188 of eleventh grade students studying at three pilot projects of School Population Awareness in Sukabumi, Indonesia. Data were collected through a survey using close-ended questionnaire which distributed purposively.

Results: Students' attitudes were at high level, and their learning achievements were also high. Three predictive factors of learning achievement in population education were found: the attitude towards subject, activity of teaching, and method of teaching.

Conclusion: From the result it was reveal that all of the predictive factors found were associated with the teaching and learning strategies of population education under the SSK program which draw a conclusion that the program is effective for the students. For BKKBN as the government institution who developed the SSK program it is recommends to advocate the Ministry of Education and Culture of Indonesia and other senior high schools to implement the SSK program based on the model of SSK implemented in Sukabumi. For the respective teachers and school sectors it is suggested to emphasize the students with the importance of learning population education, adding more real-life activities, and provide more group work in the learning process in order to improve the students' learning achievement in population education.

Keywords: Students' attitude, population education, learning achievement, school population awareness program/ Sekolah Siaga Kependudukan (SSK)



ICASH

Research for Better Society

ICASH-A005

FAMILY PLANNING FIELD WORKERS' EXPECTATIONS AND PERCEPTIONS ON SERVICE QUALITY OF TRAINING AND EDUCATION AT NATIONAL POPULATION AND FAMILY PLANNING BOARD IN PROVINCE OF CENTRAL SULAWESI, INDONESIA

Fatimah* , Arisara Leksansern

Educational Management, Faculty of Social Sciences and Humanities, Mahidol University, Thailand

*Corresponding author's e-mail: fatimahthamrin86@gmail.com

ABSTRACT

Background: Training and education for employees are the important thing to develop their knowledge, skill, performance as well as career. It is important to improve the quality of training and education service in National Population and Family Planning Board (BKKBN), specially training and education for field workers. Performance achievement of family planning field workers in province of Central Sulawesi until November 2018 was low, it was only 57,8% from 95% as a target for a year even though BKKBN province of Central Sulawesi implemented 10 training and education to them for improve the performance. This study aims to compare between trainees expectations and perceptions of service quality and then set up the guidelines to improve the training and education for family planning field workers at National Population and Family Planning Board, Province of Central Sulawesi, Indonesia.

Method: This research method uses quantitative and qualitative with descriptive design. 169 respondents filled the questionnaire with 22 statements which was pertaining with five dimensions of service quality (tangible, reliable, responsive, assurance and empathy). Moreover, focus group discussion has been used as one of qualitative methods with the management of BKKBN as participants who conduct the training and education.

Conclusions: Level of expectation is in the highest level and level of perception in the highest level. Trainees expectation beyond their perceptions means that trainees did not satisfy with training and education, because perception was related with satisfaction. There was a significant differences between expectations and perceptions for tangible, reliability, responsive and assurance ($p < 0.05$). All dimension had negative gap between expectations and perceptions ($SQ = P - E$). According to this gap, organiser who conduct training and education may be able to find the problem solving to improve the quality and reduce the gap between trainees expectations and perceptions and make the guidelines.

Keywords: Service quality, Expectations, Perceptions, Family Planning Field worker



ICASH

Research for Better Society

ICASH-A006

KNOWLEDGE, ATTITUDES, AND HIV/AIDS RISK BEHAVIORS OF MYANMAR MIGRANT WORKERS IN THAILAND

Nitchamon Rakkapao^{1,*}, Pradabduang Kiattisaksiri¹, Ronnapoom Samakkekarom²

¹Faculty of Public Health, Thammasat University, Lampang Campus, Lampang, Thailand

²Faculty of Public Health, Thammasat University, Rangsit Campus, Patumthani, Thailand

*Corresponding author's e-mail: nitchamonbt@fph.tu.ac.th

ABSTRACT

Background :HIV/AIDS is still a problem in the health care system of developing countries .Migrant workers are considered a vulnerable population for HIV infection . The current information on HIV/AIDS and migrant workers is useful to provide suitable effective health interventions for the prevention of HIV/AIDS . This study aims to describe knowledge, attitudes and HIV/AIDS risk behaviors among Myanmar male migrant workers in Thailand.

Method :A cross- sectional study was conducted in Myanmar male migrant workers aged 18-60 years collected from February to May 2018 .A total of 400 migrant workers who live in Patumthani provinces were selected by a convenience sampling method .Descriptive statistics were used to explore knowledge, attitudes and HIV/AIDS risk behaviors of participants.

Results :The mean age of the participants was 33 years, ages ranged from 18 to 60 years old, achieved primary school)40.40 ,(and married)54.30 .(%An average living in Thailand was 3.25 years and monthly income was 9,166 baht)~286 U(SD, respectively .A majority of participants had a poor level of HIV/AIDS knowledge)55.25 and (%a fair level of an attitude about HIV/AIDS disease and) prevention 61.25 .(%Risk behaviors related to HIV/AIDS of participants who had sex with non-partners were 40.58.%

Conclusion :Most participants had poor knowledge and a fair attitude of HIV/AIDS . Risk behaviors related to HIV/AIDS of the participants were relatively high .Moreover, most of participants had less access to health care services .This results confirmed that an urgent need to provide health intervention to increase knowledge on HIV/AIDS of Myanmar migrant workers in Thailand.

Keywords :Myanmar migrant workers, HIV/AIDS, risk behavior, Thailand



ICASH

Research for Better Society

ICASH-A007

ALCOHOL CONSUMPTION AND CURRENT SITUATION OF DRINKING RISK LEVEL AMONG UNIVERSITY STUDENTS IN MANDALAY REGION

Yadanar Aung¹, Yin Thet Nu Oo¹, Nanda Myo Aung Wan², Bo Bo Nyan³, Aung Pyae Phyo¹ and Le Le Win¹

¹Department of Medical Research

²National Drug Abuse Control Program, Department of Medical Services

³University of Medicine (Mandalay), Mental Health Department

*Corresponding author's e-mail: yadanaraung@mohs.gov.mm

ABSTRACT

In Myanmar, alcohol consumption among university students had been recognized as a major public health concern. A cross-sectional study was done to investigate drinking alcohol and risk level assessment using the Alcohol Use Disorder Identification Test (AUDIT) and examined the reasons of alcohol uses and types of beverage preference consumed. The two universities from three districts in Mandalay region were randomly selected, from which 976 students (stratified by academic year and sex) were contributed in self-administered questionnaire. The mean age at first drinking alcohol among the participants was 16.36 ± 0.15 years with range of 16 to 19 years. Five hundred and thirty (54.3%) students were males and 45.3% were females. Over half of the participants 60.8% were not lived with parents or guardians. The drinking risk level assessment using the AUDIT test, nearly half of the participants 48.7% were abstainers and 86 (8.8%) were high risk drinkers while 28 (2.9%) had alcohol dependency. Among those, 57.8% had experiences of alcohol drinking and the favorite beverage of the university students who drink alcohol was beer. Binary logistic regression analysis indicated that gender, smoking habit and living situation for drinking were significant predictors of alcohol consumption among university students. The results found out that living separately with parents and smoking habits were important factors for drinking alcohol with statistically significant at 95% confidence level. It provided evidence-based findings for knowing the alcohol consumption risk level among university students to prevent social deprivation and health risk behaviors. Findings from this study indicate a need for law governing the age at which adolescents start drinking alcohol and strictly prohibits the sale of alcohol directly or indirectly to those under the age of 18. The alcohol intervention program can be helpful in modifying behaviors change communication in health promotion of university students. (Wordcount – 298)

Keywords: Alcohol consumption, AUDIT test, drinking risk level, university students and binary logistic regression



ICASH

Research for Better Society

ICASH-A008

ADDRESSING GENDER INEQUALITY TO IMPROVE MATERNAL HEALTH IN INDONESIA: A NARRATIVE LITERATURE REVIEW

I Gusti Ngurah Edi Putra

Center for Public Health Innovation (CPHI), Faculty of Medicine, Udayana University, Indonesia

*Corresponding author's e-mail: ediputra.ign@gmail.com

ABSTRACT

Introduction: High maternal mortality ratio (MMR) remains a pressing public health issue in Indonesia. Despite many studies have been conducted to identify the associated factors from medical and socio-cultural perspectives, fewer studies and discussion appeared to focus on another social dimension such as gender norms, which is not explored deeply in the context of Indonesia.

Aims: This paper aimed to discuss how gender inequality affects maternal health in Indonesia and practical strategies needed to address gender inequality in improving maternal health outcomes in Indonesia.

Methods: This was a narrative literature review, based on several types of documents: research article, literature review, systematic review, books, and reports from institutions. Those would be reviewed and adjusted with the context of Indonesia in terms of how gender inequality affects maternal health, followed by the synthesis of argumentative ideas related to the practical strategies needed to address this issue.

Results: The well-maintained patriarchal system and gender norms in Indonesia leads to gender inequality as one of the social factors contributing to maternal health outcomes. Gender inequality works to influence maternal health outcomes through structural and individual level factors, in which, influence women's power and ability in the decision-making process and impact on women's demand for maternal health service utilization. In addition, implemented maternal health programmes have not fully addressed gender inequality in Indonesia so far.

Conclusion: To address gender inequality in order to improve maternal health, some strategies are suggested, such as women empowerment, men engagement to be supportive, and strengthening the protection of women's reproductive rights.

Keywords: gender inequality, maternal health, maternal mortality ratio, patriarchy, Indonesia

ICASH-A010

**THE EFFECTIVENESS OF LEMON JUICE (*Citrus limon*) TOWARD
PYRAMIDAL NEURON CELLS OF MALE WHITE
MICE'S CEREBRAL CORTEX THAT EXPOSED BY MONOSODIUM
GLUTAMATE (MSG)**

Pepi Arifiyani^{*}, Hikmah Fitriani, Rachmanda Haryo Wibisono

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author's email: pepiarifiyani@gmail.com

ABSTRACT

Background: The consumption rate of Monosodium Glutamate (MSG) in Indonesia remains high. Lemon is an antioxidant and neutralizer of free radicals which contains vitamin C and phytochemicals to prevent the long-term effects of MSG to pyramida cells. This study aims to test the effect of oral administration of lemon juice (*Citrus limon*) to the number of pyramidal neuron cells.

Methodology: This experimental study employed 30 male white mice aged 2.5 to 3 months. Those mice were randomly divided into five control-groups: Normal Control (KN), Negative Control (K-) was treated with 4 mg/grBB MSG, Dose Group 1 (KD1) was treated with 3.33 ml/kgBB lemon juice, Dose Group 2 (KD2) was treated with 6.67 ml/kgBB lemon juice, and Dose Group 3 (KD3) was treated with 13.33 ml/kgBB lemon juice. Kruskal Wallis test was used to determine the difference in distribution between groups, followed with Post hoc Mann Whitney test.

Results: After 28 days of treatment, the average number of pyramidal neuron cells in dose group 1 (637 cells) was higher than in negative control (589.5 cells) ($p=0.078$). The average number of pyramidal neuron cells in dose group 3 (482,5 cells) was lower than in the negative control (589.5 cells) ($p=0.016$). The statistical result shown that there were groups with a significant difference in pyramidal cells number. Mann-Whitney analysis of pyramidal cells number had shown that there was a significant difference between group KD3 and KD1, KD3 and K (-), KD3 and KD2.

Conclusion: Lemon juice (*Citrus limon*) in precise dose has a beneficial effect to reduce the excitotoxic effect of MSG. Further studies is needed to validate the active compound and toxicity effect of lemon juice.

Keywords: Pyramidal neuron cells, monosodium glutamate, lemon (*Citrus limon*)

ICASH-A011

THE RELATIONSHIP BETWEEN KNOWLEDGE, ATTITUDE, BREASTFEEDING PRACTICE AND INTAKE OF COMPLEMENTARY FEEDING WITH NUTRITIONAL STATUS OF CHILDREN AGED 6-24 MONTHS AT KESUNEAN HEALTH CENTER CIREBON

Mauli Ardhiya, Ignatius Hapsoro, Shofa Nur Fauzah

Faculty of Medicine, Universitas Swadaya Gunung Jati Cirebon, Indonesia

*Corresponding author's email: mauliardhiyaaa@gmail.com

ABSTRACT

Background: *The insufficient nutrient intake in the certain time may affect physical growth and development of children. The percentage of babies with exclusive breast feeding are only 37.3%. It is still under the national target. This research aims to examine the correlation of knowledge, attitude, and behavior of breastfeeding and intake of complementary feeding with nutritional status of children.*

Methodology: *This study was a cross sectional research conducted in Kesunean Health Center, Cirebon City. Totally 100 mothers of children aged 6 to 24 months was selected by consecutive sampling. The nutritional status was calculated based on weight of age whereas the predictors (knowledge, attitude, behavior) was asked by 31 questions. The statistical analysis used Spearman test and Logistic Regression.*

Results: *The univariate result showed that more than a half of children's mothers was in aged 26 to 35 years and 48% graduated from senior high school. Additionally, 63% of the children had a good nutritional status. The bivariate analysis found that knowledge, attitude, and behavior were statistically significant correlated to nutritional status with P value 0.001. The multivariate results revealed that mother who had poor knowledge, poor attitude, and poor behavior were more likely to have malnutrition children (OR=5.7, OR= 3.6, OR=6.2, respectively).*

Conclusion: *Knowledge, attitude, and behavior of mother had correlation with nutritional status. The behavior was the strongest predictors. Public health center should promote the importance of breast milk and provide the counseling to the mother.*

Keywords: *breastfeeding, intake of complementary feeding, nutritional status of children*



ICASH-A012

**ANTIDIABETIC EFFECT OF COMBINED *Muntingia calabura* L.
LEAF EXTRACT AND METFORMIN ON RATS****Adhy Nugroho***, Risnandya Primanagara, Pahmi Budiman Sahputra Basyir

Faculty of Medicine, University of Swadaya Gunung Jati, Cirebon

*Corresponding author's e-mail : adhyng@gmail.com

ABSTRACT

Background: Diabetes mellitus is a disease that causes blood glucose levels to increase. There are several therapies that can be done to reduce blood glucose levels in diabetes such as metformin, biguanides medicine and kersen (*Muntingia calabura* L.) leaves as an alternative. Treatment with combination of both is expected to further reduce blood glucose levels. This study aims to measure the effectiveness of the combination of metformin and *Muntingia calabura* L. leaf extract on blood glucose levels.

Methods: This was an experimental research with pretest-posttest control group. The samples were 24 Sprague-Dawley rats divided into 4 groups, first group (K1) negative control was given only aquadest, second group (K2) positive control (+) was given 45 mg/kgBW metformin, third group (K3) was treated with 300 mg/kgBW *Muntingia calabura* leaf extract, and the fourth group (K4) was given the combination of 300 mg/kgBW *Muntingia calabura* leaf extract and 45 mg/kgBW metformin. Blood glucose levels were measured and analyzed using paired t-test and one-way ANOVA.

Results: The combination of 300 mg/kgBW of *Muntingia calabura* extract and 45 mg/kgBW of metformin reduces 131.77 ± 3.57 mg/dl of blood glucose levels ($p < 0.05$). This result is better than only metformin (92.68 ± 3.10 mg/dl) or only *Muntingia calabura* leaf extract (91.70 ± 4.40 mg/dl). There is a possibility that the synergistic effect of *Muntingia calabura* leaf extract and metformin caused the increased effectivity in reducing blood sugar level.

Conclusion: The combination of *Muntingia calabura* and metformin is more effective in reducing blood glucose levels compared to a single dose of metformin or *Muntingia calabura* L. extract alone.

Keywords: Diabetes mellitus, *M. calabura* leaf extract, blood sugar levels.



ICASH-A013

THE CORRELATION BETWEEN ANTENATAL CARE, PARITY AND MATERNAL AGE AMONG PREGNANT WOMEN WITH ANTEPARTUM HEMORRHAGE INCIDENCE AT GONDOSARI COMMUNITY HEALTH CENTER, KUDUS

Akbar Dito Erlangga*, Tissa Octavira Permatasari, Ouve Rahadiani Permana

Faculty of Medicine, Swadaya Gunung Jati University, Cirebon, Indonesia

*Corresponding author's e-mail: ditoerlangga17@gmail.com

ABSTRACT

Background: Antepartum hemorrhage is one of the main cause of maternal mortality. The Maternal Mortality Rate (MMR) in Indonesia currently reaches 305 every 100,000 live births which is still quite high from the MDGs target. Risk factors for antepartum hemorrhage will increase with increasing age and maternal parity, while, the cause of maternal death can be prevented via regular Antenatal Care (ANC). This present study aimed to determine the correlation between the frequency of antenatal care, parity, and age of pregnant women with the incidence of antepartum hemorrhage in the Community Health Center, Kudus City.

Method: This was an observational analytic study with cross-sectional design. This study used secondary data obtained from maternal cohort books and Local Area Monitoring of Mother and Child Health (PWS-KIA) databooks. Using simple random sampling technique, a total of 323 individuals were recruited. Univariate analysis, bivariate analysis and multivariate analysis were performed on the data obtained.

Results: The Spearman's correlation test showed that there was significant correlation between frequency of Antenatal Care (ANC) ($p=0.001$), parity ($p= 0.001$) and age ($p=0.001$) with antepartum hemorrhage. The correlation coefficient showed that antenatal care (ANC) has a strong negative correlation with antepartum hemorrhage ($r= -0.541$), parity has a medium correlation with antepartum hemorrhage ($r= 0.418$) and age has a medium correlation with antepartum hemorrhage ($r= 0.465$). Multivariate analysis showed that age had the strongest influence on the incidence of antepartum hemorrhage ($PR= 274.573$), while other variables had the weakest influence smaller effect on the incidence of antepartum hemorrhage (ANC, $PR= 0.001$ and parity, $PR= 0.041$)

Conclusion: The frequency of antenatal care (ANC), parity and age have correlation with antepartum hemorrhage in the working area in Gondosari Community Health Center, Kudus. Age is the most influential factor in the incidence of antepartum hemorrhage.

Keywords: Antenatal Care, Antepartum Hemorrhage, Maternal Age, Parity.



ICASH

Research for Better Society

ICASH-A015

THE CORRELATION OF KNOWLEDGE AND ATTITUDE ON DRUGS WITH DRUG ABUSE BEHAVIOR AMONG ADOLESCENTS IN KESUNEAN HEALTH CENTRE, CIREBON CITY

Ayatullah Ouve Rahadiani Permana*, Uswatun Khasanah

Faculty of Medicine Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding authors' e-mail: ayatullah.saidi45@gmail.com

ABSTRACT

Background: *The National Narcotic Agency (NNA) reported the number of drug abuse in Indonesia was increasing over the year. It was reflected by increasing of 0.5 million drug users from 2008 to 2014. One fourth of the teenagers in Cirebon were drug users. The REMPONG PISAN (an ISP-Integrated Service Post- who cares for HIV/AIDS and drugs) program was established by community Health Center of Kesunean to increase the knowledge of adolescents about HIV/AIDS and drugs. This study aims to observe the correlation of adolescent's knowledge and attitudes to drugs abuse behavior among adolescent according to the ISP.*

Methodology: *This research was an observational analytic study with a cross-sectional design that involved 46 adolescents. The sample was determined using consecutive sampling technique during the implementation of the ISP at the 2 neighborhoods in the community health center of Kesunean. The data were analyzed by using Pearson correlation.*

Results: *The study analysis found the strong association between knowledge and attitudes towards drug use ($p < 0.000$). However, each of knowledge and attitudes were found without any association with drug abuse behavior ($p > 0.05$).*

Conclusion: *The knowledge has strong correlation with attitudes. Policy maker should develop the program which enrich the knowledge of drug so the attitudes may get better as well.*

Keywords: *Knowledge, attitudes, ISP (Integrated Service Post), adolescents, drug abuse*



ICASH-A016

THE EFFECT OF LEMON JUICE (*Citrus limon*) IN LIVER HISTOPATHOLOGIC APPEARANCE OF MALE MICE (*Mus musculus* L.) EXPOSED BY MONOSODIUM GLUTAMATE (MSG)**Dela Destiani Aji*, Ruri Eka Maryam Mulyaningsih, Ahmad Fariz MZZ***Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia*

*Corresponding authors' email: deladestianiaji@gmail.com

ABSTRACT

Background: Excessive consumption of MSG can cause the formation of free radicals in the body. Continuous use of MSG will cause free radical accumulation and oxidative stress in the liver. An antioxidant is one of the substances that has an ability to eliminate free radicals and protect the liver from oxidative stress. Lemon is a fruit that has benefits as a natural antioxidant. This study aims to determine the effect of administering lemon juice on the histopathological appearance of the liver exposed by MSG.

Methodology: This post-test only control group design experimental study used 30 male white mice which were randomly divided into five groups: NC group, C(-) group, D1 group, D2 group, and D3 group. After 7 days of adaptation and randomized grouping, the mice were treated differently based on their group. All groups, except the NC group, were exposed to 4mg/gBW dose of MSG orally for 14 days. On the 15th day, MSG exposure was stopped and after that D1 group, D2 group, and D3 group were given lemon juice with a dose of each group 3.33ml/kgBW, 6.67 ml/kgBW, 13.33 ml/kgBW. The lemon juice was given once a day for 14 days using the gastric sonde. Histopathology examination was analyzed by pathologist in Gunung Jati Hospital, Cirebon, Indonesia

Results: Significant differences of liver histopathology were obtained between the normal control group with the dose 3 group ($p = 0.005$), the normal control group with the dose 2 group ($p = 0.019$), the normal control group with the dose group ($p = 0.019$) and between the negative control groups with dose 3 group ($p = 0.027$). Dose 3 group has higher liver damage compared to a normal control group and negative control group characterized by the form of parenchymatous degeneration.

Conclusion: Lemon juice has a negative effect on the histopathology appearance of male white mice's (*Mus musculus* L.) liver exposed by monosodium glutamate (MSG). Further studies are needed to validate the effect of the active compound and toxicity of lemon juice and to reveal the precise mechanisms on how lemon juice affects the hepatocytes.

Keywords: Monosodium Glutamate (MSG), Citrus lemon, Histopathology Liver



ICASH

Research for Better Society

ICASH-A017

THE COMPARISON OF DIARRHEA INCIDENCE BETWEEN 0-6 MONTHS OLD INFANTS WHO WERE EXCLUSIVELY BREASTFED, NON-EXCLUSIVELY BREASTFED AND GIVEN MILK FORMULA IN CIREBON CITY, INDONESIA

Dewi Sukmawati*, Witri Pratiwi, Ahmad Fariz Malvi

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author's email: sukmawi98@gmail.com

ABSTRACT

Background: Infant diarrhea is one of the major health issues in Indonesia due to its high incidence and mortality. In 2015, the mortality rate of diarrhea and gastroenteritis in infants under one year in hospitals in Cirebon was 21%. Inappropriate infant feeding practice is one of the risk factors of diarrhea in infants. WHO recommends that every infant should get exclusive breastfeeding during the first 6 months of life and continued breastfeeding until 24 months of age. The aim of this study is to find out the difference in diarrhea incidence between 0-6 months old infants who were exclusively breastfed, non-exclusively breastfed, and given infant milk formula.

Methods: This was an observational study with cross-sectional design. A total of 89 infants aged 0-6 months old were recruited by purposive sampling. The primary data were obtained using questionnaires that were filled by the mother or caregiver of the infants. The data were analyzed using the Chi-Square test and Prevalence Ratio was calculated.

Results: The Chi-Square test showed a significant difference in diarrhea incidence between 0-6 months old infants who were exclusively breastfed, non-exclusively breastfed and infant milk formula ($p=0,028$). Infants who were not breastfed have 4 times higher risk of diarrhea ($PR=4.145$; $CI95\%=1.198-14.400$) compared to infants who were breastfed. Infants who were not exclusively breastfed has 3 times higher risk of diarrhea incidence compared to the infants receiving exclusive breastfeeding ($RP=3.286$; $CI95\%=1.144-9.434$)

Conclusion: Proper breastfeeding practice can decrease diarrhea incidence in infants aged 0-6 months. Mothers should be encouraged to exclusively breastfeed her baby during the first 6 months of life.

Keywords: Diarrhea, breastfeeding, infant milk formula, infant feeding practice.



ICASH-A018

CALCULATING COLONY OF *Candida spp.* AMONG CHILDREN WITH INTELLECTUAL DISABILITY IN CIREBON**Dhini Oktaviani*, Amanah Amanah , Eni Suhaeni, Risnandya Primanagara***Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia**Corresponding author's email : diniviani12@gmail.com**ABSTRACT**

Background: Children and adults with Intellectual Disability and Autism Spectrum Disorders (ASD) have decreased intestinal permeability and enzyme activity, causing gastrointestinal (GI) problems that are more frequent and more severe than in children from the general population. The immune system which is part of the intestinal barrier in children with Intellectual Disability (ID) experiences various disorders and becomes more susceptible to fungal invasion, such as *Candida spp.* This present study aims to calculate the colony of *Candida spp.* in the digestive tract of Children with Intellectual Disability (ID) in the city of Cirebon.

Method: This is an observational study with cross-sectional design using purposive sampling. The study was conducted in November 2018-February 2019. The sample (ID) group consists of 31 individuals from Special Needs School and 60 individuals from National elementary school (non-ID) in the city of Cirebon. The inclusion criteria were children ages 6-12 years and the exclusion criteria were children under antifungal treatment and children under cytotoxic or immunosuppressive drugs. The fecal samples from the ID group and non-ID were examined at the Laboratory of the Faculty of Medicine, Universitas Swadaya Gunung Jati Cirebon, Indonesia using Digital Colony counter. Collected data were stored and analyzed using computer aided Statistical program. Mann-Whitney analysis of variance techniques were used to test the hypotheses.

Results: The results showed that there are significant differences in the colonies of *Candida spp.* between the ID group and non-ID group. Median colony of *Candida spp.* in the ID group is 39.00 with mean colony of 126.90 while the median colony of non-ID group is 3.00 with mean colony of 40.93 ($p < 0.001$).

Conclusion: There are significant differences between the *Candida spp.* colonies in the ID group with the non-ID.

Keywords: Intellectual Disability (ID), *Candida spp.*, Gastrointestinal

ICASH-A019

**THE CORRELATION BETWEEN EDUCATION, WORK, AND
MATERNAL KNOWLEDGE ON COMPLEMENTARY FEEDING WITH
6-24 MONTHS' NUTRITIONAL STATUS**

Dina Alfiana*, Witri Pratiwi, Muhammad Edial Sanif

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author's email: dinaalfiana79@gmail.com

ABSTRACT

Background: Indonesian Basic Health Research in 2018 reported that the prevalence of malnutrition in Indonesia was 17.7% which consists of 13.8% malnutrition and 3.9% severe malnutrition. In West Java Province, the prevalence of malnutrition and severe malnutrition is still high at 15.6%. The aim of this study is to examine the correlation between education, work, and maternal knowledge about complementary feeding with baby nutrition status aged 6-24 months.

Methodology: This was a cross sectional study. The sample of this study was 100 mothers of infants aged 6 to 24 months in the Tegalgubug Health Center, in Cirebon City which selected by cluster sampling. Data have been collected from questionnaires and anthropometric measurement of weight for age Z (WAZ). Nutritional status was categorized into abnormal nutritional status if z score < -2 SD up to < -3 SD, and normal nutritional status if z score -2 SD to 2 SD. The analysis of the study was tested by Spearman correlation.

Results: From 100 respondents, 51% of them were low educated mother, 55% were working mother, 51% had good knowledge, and 83% had good nutrition's babies. The bivariate analysis showed that education, working status, and mother's knowledge about complementary feeding were statistically significant correlated with nutritional status of infants ($p=0.021$, $p=0.020$, $p=0.013$, respectively).

Conclusion: Education, working status, and knowledge were significant correlated with nutritional status of infants aged 6 to 24 months. Malnutrition of infants can be greatly reduced by educating maternal about complementary feeding and given accurate information about nutritional status of infants.

Keywords: Education, complementary feeding knowledge, nutritional status

ICASH-A020

INFLUENCE OF GIVING BREADFRUIT (*Artocarpus altilis* (Park) Fosberg.) LEAVES EXTRACT TO DECREASE URIC ACID LEVELS IN WISTARS RATS HYPERURICEMIC

Hagi Wibawa *, Hikmah Fitriani , Rama Samara B , Irwan Meidi L

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author's email: wibawa.h@gmail.com

ABSTRACT

Background: Hyperuricemic is a condition where the uric acid levels in blood more than 7 mg/dl. In 2010, Hyperuricemic was included as one of non-communicable disease with incidence rate up to 30% and can cause the mortality. This study aims to examine the effective dose of breadfruit (*Artocarpus altilis* (Park) Fosberg.) leaves extract to decrease uric acid levels in Wistar rats Hyperuricemic.

Methodology: This study was an experimental with pre-posttest with control group design. 30 Wistar rats aged three months was divided into 2 control groups (K1 and K2) and 3 treatment groups (K3, K4, and K5). Control groups were given purine (K1= standard, K2=high) and aquadest. Differently, treatment groups were given high purine and breadfruit leaf extract (K3=0.25g /KgBW, K4=0.5g /KgBW, K5=0.75g/KgBW). All the treatments were given one time daily in the morning for 7 days. Data were analyzed by the Shapiro-Wilk test followed by the One-Way ANOVA test and then Post-hoc Tamhane test.

Result: The control groups revealed negative average reduction of uric acid in mg/dl (K1= -0.05, K2= -0.09) whereas the treatment groups revealed the positive average reduction of uric acid in mg/dl (K3=2.19, K4= 4.26, K5=5.87). The significant differences ($p<0.05$) of uric acid levels before and after treatment in each treatment groups had meaning that giving the Breadfruit leaf extract could reduce the uric acid level rats. Post-hoc Tamhane test result showed that the mean decrease of each group was significantly different. Particularly, K5 was the most effective treatment compared with others.

Conclusion: Breadfruit leaves extract with dose of 0.75g/KgBW was the most effective treatment to reduce the uric acid level in blood. Stakeholders in health field should promote the Breadfruit as the traditional medicine method to reduce the uric acid in blood.

Keywords: Breadfruit leaves, uric acid, Hyperuricemic, Wistar rats, flavonoids

ICASH-A021

DESCRIPTIVE STUDY OF DIETARY PATTERNS AND PHYSICAL ACTIVITIES AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS IN COMMUNITY HEALTH CENTER OF KESUNEAN, CIREBON

Hanif Haidaryafi, Muhammad Edial Sanif, Ignatius Hapsoro Wirandoko

Faculty of Medicine, Universitas Swadaya Gunung Jati

*Corresponding author's email: Hanifhaidaryafi@gmail.com

ABSTRACT

Background: *The prevalence of Diabetes Mellitus (DM) remains high in Indonesia. The Basic Health Research of Indonesia in 2018 revealed that 2% of 250 million population were diagnosed of DM. Unbalanced dietary patterns and lack of physical activities contributed as the risk factors of DM type 2. Particularly, this study wants to find out the description of dietary patterns and physical activities among patients in the community health center of Kesunean, Cirebon.*

Methodology: *This descriptive study used 89 people with DM type 2 aged 45-65 years as the respondents. Consecutive sampling was used as the sampling technique, while recall questionnaire of 24-hour food consumption and food frequency for diet and Baecke questionnaire for physical activity were used as data collection techniques.*

Results: *The results of frequency distribution analysis showed that 64 (71.9%) respondents had unbalanced diets, while 25 (28.1%) of them had balanced diets. Regarding physical activities, 51 (57.3%) respondents had low intensity of physical activities and 38 (42.7%) patients had moderate intensity of physical activities.*

Conclusion: *Most of the respondents with DM type 2 had unbalanced diets and low intensity of physical activities. Community Health Center of Kesunean should provide communication, information and communication about the importance of balanced diets and physical activities in order to prevent the incidence of DM type 2.*

Keywords: *Physical activity, diet, type 2 diabetes mellitus*

ICASH-A022

**THE EFFECTIVENESS OF LEMON JUICE (*Citrus limon*) ON
PURKINJE CELL OF WHITE MALE MICE (*Mus musculus*)
CEREBELLAR CORTEX THAT EXPOSED BY MONOSODIUM
GLUTAMATE (MSG)**

I Gusti Ayu Novita Afsari*, Hikmah Fitriani, Triono Adi Suroso

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author's email: novitachingu24@gmail.com

ABSTRACT

Introduction: A number of studies have indicated that excessive MSG (Monosodium glutamate) consumption can lead to the formation of free radicals that can have a negative effect on purkinje cells in the cerebellar cortex. Lemon fruit is a plant that has benefits as a natural antioxidant because it contains compounds such as flavonoids, vitamin C, citric acid and other substances. This study aims to examine the effect of lemon juice (*Citrus limon*) to purkinje cells of the cerebellum cortex on male white mice (*Mus musculus*) which exposed of monosodium glutamate.

Method: This research is an experimental laboratory with a post test only control group design. The research subjects were 30 white male mice divided into 5 groups: normal control given standard feed, negative control given MSG dose 4mg / grBW, group of dose I, dose II, and dose III that were each given lemon juice with doses 3.33ml / kgBW, 6.67ml / kgBW, 13.33ml / kgBW respectively. The number of purkinje cells is calculated in the cerebellar cortex by HE staining. The results of the study were analyzed by One Way ANOVA followed by the Bonferroni Post hoc test.

Results: The average number of purkinje cells in administration of lemon juice with dosages of 3.33 ml/kgBW, 6.67 ml/kgBW and 13.33 ml /kgBW were 14.10 cells, 16.73 cells and 17.50 cells respectively. Based on the Post Hoc test, the average number of purkinje cells at the dose of 13.33 ml / kgBW was higher than the negative control ($p = 0.021$)

Conclusion: Lemon juice could be used to reduce negative effect of MSG on purkinje cells of white male mice. Moreover, this finding could be used as reference on further research of benefit of lemon juice.

Keyword: *Citrus limon*, purkinje cell, monosodium glutamate (MSG)

ICASH-A023

**THE CORRELATION BETWEEN MOTHER'S KNOWLEDGE,
EDUCATION AND FAMILY INCOME WITH NUTRITIONAL STATUS
OF TODDLER (AGED 1-6 YEARS)**

Ika Rena Pratiwi*, Ricardi W. Alibasjah, Catur Setiya Sulistiyana

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author's email: ikarena96@yahoo.com

ABSTRACT

Background: Increasing number of malnutrition among toddler in Indonesia relates to knowledge, education and mother's income. These characteristics are associated with the provision of infants' food intake. This study tries to find out the correlation between mothers' knowledge level, education and family revenue with nutritional status of toddler.

Methods: This research used Cross Sectional design, used Accidental sampling techniques. The samples were taken 289 toddlers (1-5 years). Independent variables of this study are mother's knowledge, mother's education level, and family income. Dependent variable is toddler nutrition status. The data obtained were analysed using spearman test.

Results: This study found a different result with previous studies. Spearman test results showed that mother's knowledge level, education and family revenue were not significantly correlation ($p > 0.05$) with nutritional status of toddler Kalitanjung Cirebon Health Center. These variables categorized at indirect factors of malnutrition caused. Several direct factors included food intake and toddler's health condition might have higher affect towards toddler nutrition status.

Conclusion: This study found that mother's knowledge level, education and family revenue not correlate with nutritional status of toddler in Kalitanjung Cirebon Health Center. Further research should be included another factors to support these indirect factor of malnutrition caused.

Keywords: Knowledge level, Mother's education, Revenue, Nutritional status of toddler

ICASH-A024

**ANTIDIABETIC EFFECT OF COMBINED CINNAMOMUM CASSIA
EXTRACT AND METFORMIN IN RATS**

Jibril Ali Syariati Assajad*, Muhammad Edial Sanif, Risnandya Primanagara

Faculty of Medicine, University of Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author's email: jibril.ali99@gmail.com

ABSTRACT

Background: Hypertension is one of the main causes of mortality and morbidity in Indonesia. Hypertension is also the third biggest risk factor for early deaths. Several previous researches have shown that obesity and diabetes mellitus type II (DM type II) are the factors in the occurrence of hypertension. Previous research did not include the stage of obesity and DM type II, by this reason the research was aimed to analyze the correlation between the stage of obesity and stage of DM type II with hypertension.

Methodology: This research used observational analytic with cross-sectional design. This study involved 161 patients who were selected by consecutive sampling method. The inclusion criteria of the sample were aged 45-60 years old, obese, and have been diagnosed of DM type II and hypertension in Waled Regional General Hospital.

Results: The result revealed that stage of obesity and stage of DM type II were significantly associated with hypertension ($p < 001$, $p < 01$, respectively). Other variables that also significantly associated with hypertension were age and gender.

Conclusion: There was the strong correlation between stage of obesity and hypertension. Public health policy maker may promote to prevent the obesity in order to decrease the incidence of hypertension.

Keywords: Obesity, DM type II, Hypertension

ICASH-A025

THE CORRELATION OF ANXIETY IN DEALING WITH OBJECTIVE STUDENT ORAL CASE ANALYSIS (OSOCA) EXAMINATION ON THE CASE OF FUNCTIONAL DYSPEPSIA IN THE FIRST SEMESTER MEDICAL STUDENTS

Juharny Eka Sackbani*, Thyssa Thysmelia, Defa Nur Rahamtunnisaa

Faculty of Medicine, University of Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author's email: Juharnysackbani@gmail.com

ABSTRACT

Background: Anxiety is a psychological reaction caused by a variety of factors, one of which is when a student has an examination. Objective Student Oral Case Analysis (OSOCA) is one of the examinations that is a main indicator of learning achievements of medical students in the faculty of medicine. Anxiety can cause a variety of other health problems, such as functional dyspepsia. This study aims to analyze the correlation of anxiety in dealing with objective student oral case analysis (OSOCA) examination and the cases of functional dyspepsia in the first semester medical students.

Methods: This research was an observational study with a cross-sectional design. A total of 132 medical students were recruited as respondents. Zung Self-rating Anxiety Scale (ZSAS) questionnaire was used to assess anxiety and a questionnaire based on Rome III criteria that was previously validated was used to measure functional dyspepsia. The data were analyzed using Spearman correlation test and prevalence ratio was determined.

Results: The result based on Spearman correlation test showed significant weak positive correlation between anxiety and functional dyspepsia with $r=0,295$ ($p=0,001$). Student with moderate anxiety scales have 5 times greater risk of functional dyspepsia than student who have mild anxiety scales ($PR=5,300$).

Conclusion: There is a significant correlation between anxiety and functional dyspepsia. Students with moderate anxiety scales have 5 times greater risk of functional dyspepsia than students who have mild anxiety scales.

Keywords: Anxiety Scale, Functional dyspepsia, OSOCA.

ICASH-A027

COMPARISON OF SOIL-TRANSMITTED HELMINTH EGG INFESTATION IN FECES OF INTELLECTUAL DISABILITY (ID) CHILDREN WITH NON-ID CHILDREN

Mellyna Iriyanti Sujana*, Amanah Amanah, Handoyo Moch Yusuf

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author: mellynairiyanti@gmail.com

ABSTRACT

Background: *The worm infestation is considered as one of the causes of cognitive function disruption. It also can aggravate the condition in children with intellectual disability (ID). This greatly affects health conditions, such as abdominal pain, bloating, diarrhoea, constipation and other digestive disorders. Indigestion may increase aggressive behaviour, mood change and malnutrition so that it leads to chronic malnutrition which is the cause of major morbidity and premature death in the ID population. This study aimed to compare soil-transmitted helminth egg infestation in stool samples between ID children and non-ID children.*

Methodology: *This present study was a descriptive study with a cross sectional design. Stool samples was collected from 30 students from Special Need School and 60 students from Elementary School in the Cirebon City. The floating method was used to identify the egg of soil-transmitted helminth. The stool samples were examined in the Laboratory of the Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia*

Results: *The laboratory test found positively Soil-transmitted Helminth eggs in 9 of 30 stool sample of ID students. Among them, it was found 5 stool samples with *Ascaris lumbricoides*, 2 stool samples of *Trichuris trichiura*, and 2 stool samples of *Necator americanus*. Regarding their levels, 4 students (44.4%) had mild intellectual disability and 5 students (55.6%) had moderate intellectual disability. However, there was not found any Soil-transmitted Helminth eggs in stool samples of non-ID children.*

Conclusion: *Soil-transmitted helminth eggs was found only in stool samples of ID children. The hygiene and sanitation in the school should be guaranteed to prevent the transmission of Soil-transmitted Helminth.*

Key words: *Soil-Transmitted Helminth, Intellectual Disability (ID), Feces*

ICASH-A028

THE EFFECT OF ORALLY ADMINISTERED CATFISH (*Clarias gariepinus*) SKIN AND MEAT ON EPITHELIALIZATION THICKNESS AND COLLAGEN DENSITY IN INCISION WOUND OF WISTAR RAT (*Rattus norvegicus*)

Muhammad Irsyad Baihaqi

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author's email: baihaqimuhammadirsyad@gmail.com

ABSTRACT

Background: Alternative medicine using animal is still rare whereas Indonesia have a lot of potential natural resources. Catfish is easily found animal in Indonesia and is common consumed as nutriment sources contains albumin, amino acid and fatty acids which plays an essential role of wound healing process. This study will determine effect of orally administered catfish (*Clarias gariepinus*) skin and meat on epithelialization thickness and collagen density in incision wound of white male rat (*Rattus norvegicus*).

Methods: This experimental post-test only group design used 30 white male rat (*Rattus norvegicus*), that randomly divided into 4 treatment group and one control group. The treatment group was given 12,5 mg/g W, 25 mg/g W, 37,5 mg/g W and 50 mg/g W dose of catfish (*Clarias gariepinus*) skin and meat flour, in the other hand the control group were given aquades. Non-parametric analyses using Kruskal-Wallis and Mann Whitney test were used to compare epithelialization thickness and collagen density.

Result: The comparison results of epithelialization thickness between group C with TGI, C with TG2, C with TG3 and C with TG4 showed significant differences ($p < 0.05$). TG4 was the thickest of all groups. Significant differences were also observed in collagen density result between C with TGI, C with TG2, C with TG3 and C with TG4 ($p < 0,05$) TG4 showed the highest density of all groups.

Conclusion: Catfish (*Clarias gariepinus*) skin and meat flour with 50 mg/200g W dose is effective for wound healing and increasing epithelial thickness and collagen density in Wistar rat (*Rattus norvegicus*) incision wounds.

Keywords: Epithelial thickness, Collagen density, Wound, Catfish (*Clarias gariepinus*)



ICASH-A029

**CORRELATION BETWEEN ANXIETY LEVEL AND SELF
DIRECTED LEARNING READINESS (SDLR) WITH STUDENT
PEFORMANCE IN PROBLEM BASED LEARNING (PBL)**

Nita Safitri*, Uswatun Khasanah, Ruri Eka Maryam Mulyaningsih

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author email: nitasafitri88@gmail.com

ABSTRACT

Background: *The pattern of medical education in Indonesia has changed from teacher-centered learning to student-centered learning. This change has an impact on methods, learning activities, and learning achievements of medical students. Problem Based Learning (PBL) is one of the main learning methods used in the faculty of medicine. PBL is a learning method that requires students to play an active role and facilitate collaborative learning. Due to the change of learning method, new medical students experience a lot of stress from in doing Problem Based Learning such as anxiety and may affect their PBL results as can be evaluated using Self-Directed Learning Readiness (SDLR). There are very few studies found to date investigating this phenomenon.*

Aims: *This research aims to see the correlation between anxiety level and SDLR with student's performance participating in first-year PBL in the Musculoskeletal and Locomotory System block in the faculty of medicine Universitas Swadaya Gunung Jati Cirebon.*

Methods: *This is a cross-sectional observational study with total sampling. The samples were recruited from 167 first-year 2018 intake students of the faculty of medicine Universitas Swadaya Gunung Jati. Zung Self Rating Anxiety Scale questionnaire is used to measure anxiety levels and the SDLR questionnaire is used to measure Self Directed Learning Readiness (SDLR).*

Results: *The Spearman test showed a medium negative correlation value of -0.49 ($p > 0.05$) for the level of anxiety. It means that there is no significant effect of anxiety on the PBL performance. In addition, it shows a weak positive correlation value of 0.196 ($p < 0.05$) for SDLR (self-directed learning readiness) showing a significant influence on PBL performance.*

Conclusions: *The level of anxiety does not significantly influence PBL performance while SDLR has a significant effect on PBL performance.*

Keywords: *Anxiety Level, Self-Directed Learning Readiness, Problem Based Learning.*

ICASH-A030

**THE EFFECT OF SELF DIRECTED LEARNING READINESS (SDLR)
AND LEARNING APPROACH TOWARD MEDICAL STUDENT
ACHIEVEMENT**

Nurul Amaliah Lestari*, Uswatun Hasanah, Ricardi Witjaksono Alibasjah

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author email: nurulamaliahlestari@gmail.com

ABSTRACT

Background: Learning approach and Self Directed Learning Readiness (SDLR) are important factors that influence student learning achievement. The world of medical education has experienced a paradigm shift from Teacher-Centered Learning (TCL) to Student-Centered Learning (SCL) that is applied through the Problem Based Learning (PBL) methods that expected the student to have the ability to learn independently or what is called Self Directed Learning (SDL). This study aimed to analyzed the effect of SDLR and learning approach on medical student achievement.

Methods : this study uses a cross-sectional design. The sample was students of the Faculty of Medicine, Swadaya Gunung Jati University, 2016, 2017 and 2018 as many as 181 people. The sampling technique uses stratified random sampling. Spearman test, chi-square test and linear regression test were used to analysed the effect of the age, SLDR and learning approach on medical student achievement

Results : The chi square test result in this study showed that age ($P = 0.001$; $rs = 0.359$), SDLR ($P = 0.001$; $rs = 0.516$) and the learning approach ($P = 0.001$; $rs = 0.308$) had a significant effect on medical students' learning achievement. However, there was no significant difference in the learning approach between 2016, 2017 and 2018 classes. The linear regression test results showed that SDLR was the most influential variable in the learning achievements of medical students.

Conclusions : Self Directed Learning Readiness (SDLR) and learning approach could be the effective learning methods. SDLR as the most effective method to increase the learning achievements of medical student could be applied on many medical schools.

Keywords : SDLR, learning approaches, learning achievement.

ICASH-A031

INHIBITORY OF SOURSOP LEAVES (*Annona muricata* L.) EXTRACT AGAINST *Malassezia furfur* GROWTH

Rike Rizqilah*, Dadan Ramadhan Apriyanto, Ruri Eka Maryam Mulyaningsih

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author email: rizqilahrike@gmail.com

ABSTRACT

Background: *Malassezia furfur* in certain conditions can turn into a pathological phase, from the yeast phase to the mycelia phase that attacks the stratum corneum. *Malassezia furfur* is one of the causes of Pityriasis versicolor. The prevalence of pityriasis versicolor in Indonesia is quite high at around 40-50%. Several studies suggested that soursop leaves (*Annona muricata* L.) contains active substances with anti-fungal properties. This study aims to determine the inhibition of soursop leaves (*Annona muricata* L.) extract against the growth of *Malassezia furfur*.

Methods: This study was an experimental study with Post-test Only Control Group Design. *Malassezia furfur* fungi is used as subject in this study and ethanol extract of soursop leaves as a natural antifungal against *Malassezia furfur*. The concentrations of extract tested were 100%, 80%, 60%, 30%. Miconazole 2% was used as a positive control while DMSO 10% was used a negative one. The result of the study was analyzed by descriptive analysis which showed by increasing average diameter of antifungal.

Results: The results showed that soursop leaves (*Annona muricata* L.) extract had inhibitory effect on the growth of *Malassezia furfur* fungi at 100% concentration of 2.50 mm, 80% at 1.50 mm, 60% at 0.47 mm, 30% concentration at 0.25 mm and positive control of 14.50 mm. While as negative control, no inhibition zones were formed on SDA media.

Conclusion: Soursop leaves (*Annona muricata* L.) extract can inhibit the growth of *Malassezia furfur*, but the formed inhibition zone is weak. Further research is needed to found the best type of antifungal metabolites to maximize antifungal effects.

Keywords: Soursop leaves extract, *Annona muricata* L. , *Malassezia furfur*

ICASH-A032

EFFECTIVENESS OF ORALLY USE TILAPIA (*Oreochromis niloticus*) ON WOUND LENGTH AND FIBROBLAST DENSITY ON INCISION WOUND OF WISTAR RAT (*Rattus norvegicus*)

Sayyidah Vina Syauqia*, A. Fariz Malvi Zamzam Zein, Tiar M. Pratamawati, Donny Nauphar

Faculty of Medicine Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author email: vinasauqia@gmail.com

ABSTRACT

Background: The incidence of a wound in Indonesia has increased from 7.5 percent in 2007 to 8.2 percent in 2013 according to Riskesdas. Wound care that widely used is povidone-iodine, but in case, it has a toxic effect on healthy cells around the wound. The albumin, amino acids, and fatty acids in Tilapia (*Oreochromis niloticus*) are the potential substances to accelerate the wound healing process. This study aims to investigate the efficacy of Tilapia (*Oreochromis niloticus*) on wound length and fibroblast density on the incision wound of Wistar rat (*Rattus norvegicus*).

Methods: The study was conducted in the Food and Nutrition PAU Laboratory and Pathology Anatomy Laboratory of Universitas Gadjah Mada, Yogyakarta. This post-test only control group design experimental study used 30 male white rats that randomly divided into five groups, i.e. control group K, and treatment group P1, P2, P3 and P4 that were each given Tilapia with a dose of 12.5 mg/200gBW, 25 mg/200gBW, 37.5 mg/200gBW dan 50 mg/200gBW. The length of the wound was measured by a ruler each day. The rats were terminated on the 10th day to obtain wound tissue for H&E stained histopathological sections to observe fibroblast density. One Way ANOVA, Tamhane, Kruskal-Wallis and Mann Whitney tests were used to compare the wound length and fibroblasts density.

Results: Incision wounds in this study showed the best wound healing on the 10th day. Based on the theory, on the 10th day, a proliferation and remodeling phase occurs. There is an effect of giving Tilapia (*Oreochromis niloticus*) orally at a different dose. Tilapia at dose 37.5mg/200gBW is more effective compared with the dose of 12.5mg/200gBW, 25mg/200gBW, and 50mg/200gBW to accelerate wound healing for wound length and fibroblast density in Wistar rat (*Rattus norvegicus*).

Conclusion: Consuming Tilapia (*Oreochromis niloticus*) could be a new alternative for wound healing treatment. The antimicrobial ability of Tilapia should be analyzed.

Keywords: wound healing, wound length, fibroblast density, Tilapia, *Oreochromis niloticus*

ICASH-A033

**EFFECTIVENESS OF ORALLY USE CATFISH (*Clarias gariepinus*)
SKIN AND MEAT ON WOUND LENGTH AND FIBROBLAST
DENSITY IN INCISION WOUND OF WISTAR RAT (*Rattus norvegicus*)**

Sri Utami Fauziah*, Risnandya Primanagara, Tiar M. Pratamawati, Donny Nauphar

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author email: sriutamifauziah2015@gmail.com

ABSTRACT

Background: Treatment for wounds that are currently often given is use povidone-iodine. But, this antiseptics also kills fibroblast tissue which is useful for forming new tissue. One of the other ways to treatment for wounds is use catfish. The contents found in catfish (*Clarias gariepinus*) is albumin which is a globular protein that is useful in the formation of body tissues, such as postoperative wounds and burns. This study aims to determine the effect of skin and meat of catfish (*Clarias gariepinus*) on wound length and fibroblast density in incision wounds of Wistar rat (*Rattus norvegicus*).

Methodology: This study is an experimental study with Post Test Only Control Group Design using Wistar rats which are divided into five groups. The control group (aquadest) and treatment groups 1, 2, 3 and 4 are given the skin and meat of catfish (*Clarias gariepinus*) orally at a dose of 12.5 mg / 200 g BW, 25 mg / 200 g BW, 37.5 mg / 200 g BW, and 50 mg / 200 g BW. After 10 days, the rats are killed to take the wound tissue for histological preparations to observe fibroblast density. Then, it is analyzed by ANOVA test or the alternative.

Results: There is an effect of giving catfish skin and meat (*Clarias gariepinus*) orally at different dose. The administration of catfish skin and meat (*Clarias gariepinus*) at a dose of 37.5 mg / 200 g BW and 50 mg / 200 g BW is better than other doses assessed from wound length and fibroblast density in Wistar rat incision wounds (*Rattus norvegicus*).

Conclusion: The use of catfish for wound healing can be applied. This method can reduce wound length and increase fibroblast density at certain doses.

Keywords: Fibroblasts, incision wounds, catfish, *Clarias gariepinus*, wound healing



ICASH-A034

**INHIBITORY TEST OF DAYAK ONION (*Eleutherine bulbosa* Mill.)
ESSENTIAL OIL TO THE GROWTH OF *MALASSEZIA FURFUR***

Syahidatun Hayati*, Amanah Amanah, Rose Indriyati

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author email: syahidabintiyunus@gmail.com

ABSTRACT

Background: Certain fungi are normal flora on human mucosa and skin, and they require lipids for growth. One of them is *Malassezia furfur*, which can develop into an opportunistic infection and will take a long time to treat. The fungus may cause pityriasis versicolor, which cause scaly and discoloration of the skin. It is estimated that 40-50% from population in the tropical country is infected. Dayak onion (*Eleutherine bulbosa* Mill.) essential oil have the potential to treat fungal infections. This research aims to see the inhibitory potential of dayak onion essential oil (*Eleutherine bulbosa* Mill.) in inhibiting the growth of *Malassezia furfur*.

Methods: This is an experimental study with a post-test control group design. The samples grouped into 7 groups. The first five treatment (P1 to P5) was given dayak onion (*Eleutherine bulbosa* Mill.) essential oil with a concentration of 3.125%, 6.25%, 12.5%, 25%, and 50%, P6 (positive control) was given ketoconazole, and P7 (negative control) was given 10% DMSO. The inhibitory effect is measured from the diameter of the inhibitory zone, then analyzed using Kruskal-Wallis and Mann-Whitney tests.

Result: The result showed that average diameter on 50% concentration is 9.25mm, 25% concentration is 7.5mm, 12.5% concentration have diameter of 4.5mm, 6.25% concentration have diameter of 3mm, 3.125% concentration with diameter of 1.75mm, positive control group with diameter of 20mm, and negative control group with diameter 0mm.

Conclusions: Essential oil of dayak onion (*Eleutherine bulbosa* Mill.) shows inhibition of the growth of *Malassezia furfur*. The smallest inhibition zone diameter was 1.75 mm with concentration of 3.125%. The largest inhibition zone at a concentration of 50% with diameter of 9.25 mm. This finding showed potential effects towards antifungi treatment.

Keywords: *Eleutherine bulbosa* Mill, *Malassezia furfur*, pityriasis versicolor.



ICASH-A035

THE INHIBITION TEST OF FLAVONOID AND TANNIN IN NONI FRUIT (*Morinda citrifolia* Linn) COMPARED TO CEFTRIAXONE TOWARDS *Escherichia coli* IN VITRO

Tessa Swesty Islamia*, Atik Sutisna, Hikmah Fitriani

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author's email: islamiatessa@yahoo.com

ABSTRACT

Background: *Escherichia coli* is one of the causatives of infection agents. Noni fruit that contains the antibacterial ingredients was predicted as an alternative medicine to reduce the resistance of antibiotics. Noni fruit extract can inhibit the growth of *Escherichia coli*. The absence of research on the active substances contained in this fruit which plays a role in inhibiting the growth of *Escherichia coli* encourages the researcher to conduct this research.

Methodology: The research was an experimental laboratory with post-test only control group design. The *Escherichia coli* grown on Mac conkey agar. Flavonoid and tannin in noni fruit (*Morinda citrifolia* Linn.) diluted with 3 concentrations, 50%, 70%, 100% and 2 control groups, positive control with ceftriaxone and negative control with Dimethylsulfoxide 10% (DMSO). The treatment group were incubated for 24 hours, then the inhibitory zone formed was measured in mm.

Results: The Kruskal-Wallis test showed significant difference in all concentration. The results obtained from this research showed that the average of inhibition towards *Escherichia coli* on positive control (22.83 mm) had the largest inhibition zone among flavonoid 100% (18.83mm), flavonoid 70% (14.67 mm), flavonoid 50% (6 mm), tannin 100% (17.33 mm), tannin 70% (10.83 mm), tannin 50% (7.50 mm), and negative control (2 mm).

Conclusion: Flavonoid and tannin in noni fruit (*Morinda citrifolia* Linn) were effective for inhibiting the growth of *Escherichia coli*. The 100% concentration is the most effective concentration that can be promoted as an alternative medicine.

Keywords: Noni fruit, Flavonoid, Tannin, *Escherichia coli*, Inhibition test

ICASH-A036

**IMPACT OF OBESITY AND DIABETES MELLITUS TYPE II WITH
INCIDENCE OF HYPERTENSION IN AGE 45-65 YEARS OLD**

Tiara Syamsa Noor Wildania, Shofa Nur Fauzah, Dini Sapardini Warsodoedi

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author's email: Wildaniatiara@yahoo.com

ABSTRACT

Background: Hypertension is one of the main causes of mortality and morbidity in Indonesia. Hypertension is also the third biggest risk factor for early deaths. Several previous researches have shown that obesity and diabetes mellitus type II (DM type II) are the factors in the occurrence of hypertension. Previous research did not include the stage of obesity and DM type II, by this reason the research was aimed to analyze the correlation between the stage of obesity and stage of DM type II with hypertension.

Methodology: This research used observational analytic with cross-sectional design. This study involved 161 patients who were selected by consecutive sampling method. The inclusion criteria of the sample were aged 45-60 years old, obese, and have been diagnosed of DM type II and hypertension in Waled Regional General Hospital.

Results: The result revealed that stage of obesity and stage of DM type II were significantly associated with hypertension ($p < 001$, $p < 01$, respectively). Other variables that also significantly associated with hypertension were age and gender.

Conclusion: There was the strong correlation between stage of obesity and hypertension. Public health policy maker may promote to prevent the obesity in order to decrease the incidence of hypertension.

Keywords: Obesity, DM type II, Hypertension

ICASH-A037

THE CORRELATION OF EDUCATION AND SOCIAL ECONOMIC LEVELS WITH ANTIBIOTIC SELF-MEDICATION IN THE COMMUNITY OF CIREBON

Tridaya Putri Handayani*, Muhammad Duddy Satrianugraha, Witri Pratiwi, Ruri Eka Maryam Mulyaningsih

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author email : tridayaputri@gmail.com

ABSTRACT

Background: People in developing countries, like Indonesia, often conduct self-medication. One of the most common drugs used in self-medication is antibiotics. Antibiotics should be used with caution since it can cause antibiotic resistance and possible unwanted side effects of the drug. There are several factors that influence self-medication behavior such as education and socio-economic levels. This research aims to find the correlation between education and social economic levels with antibiotic self-medication in the community of Cirebon.

Method: This study was an analytical survey with cross-sectional method. This study was conducted from December 2018 to February 2019. A total of 300 respondents were recruited as samples using consecutive sampling technique. The respondents were recruited from 5 different pharmacies from each sub-district in Cirebon City and a validated questionnaire were used to obtain data. The collected data are analyzed using the Spearman correlation test.

Results: The results of this study show that there was a significant but weak positive correlation of education level ($r=0.224$, $p=0.001$) and socio-economic ($r=0.210$, $p=0.001$) with self-medication using antibiotics.

Conclusion: There is a significant positive correlation between education and socio-economic levels with antibiotic self-medication.

Keywords: self-medication, education level, socio-economic level

ICASH-A038

DOES BEETROOT JUICE LOWER BLOOD PRESSURE?: A SYSTEMATIC REVIEW

Maya Erisna^{*}, Merisa Restiani Arma, Sri Sumarni, Hilma Triana

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

Corresponding author's e-mail: mayaerisna@gmail.com

ABSTRACT

Background: Hypertension or high blood pressure has been a common global health problem for several years. The content of nitrate within beetroot helps to increase production of nitric oxide (NO) which serves as a vasodilator and has potency to reduce blood pressure. This study aims to determine the potential effect of beetroot juice on reducing blood pressure.

Methods: This study was a systematic review based on the PRISMA protocol as a writing guideline. Data were obtained from PubMed, Science Direct, and Google Scholar databases. Keywords used consisted of "beetroot", "beetroot juice", "blood pressure", and "hypertension." The eligibility criteria were research written in English, years of publication from 2014 and above, and Randomized controlled trials of beetroot juice interventions on reducing blood pressure.

Results: The literature search resulted in 376 records, and only 9 studies were in the systematic review. Six out of 9 studies showed significant results of blood pressure reduction, but the other three studies confirmed otherwise. A significant reduction of blood pressure was mostly observed in healthy subjects. The efficacy of beetroot juice supplementation is influenced by several factors, including gender, age, nutritional status (BMI), initial blood pressure, duration of supplementation, dose, and concentration of nitrate.

Conclusions: Beetroot juice supplementation is not so useful on reducing blood pressure because it only has an acute effect in lowering blood pressure and its effects were also influenced by several factors.

Key Words: beetroot juice, blood pressure, hypertension, a systematic review

ICASH-A039

ASSESSMENT OF RESIDENCE SANITATION CONDITION AND LIFE QUALITY OF CONSTRUCTION WORKERS, CHONBURI PROVINCE, THAILAND

Danai Bawornkiattikul^{1*}, Nantaporn Phatrabuddha²

¹*Department of Environmental Health, Faculty of Public Health, Burapha University, Thailand*

²*Department of Industry Hygiene and Safety, Faculty of Public Health, Burapha University, Thailand*

*Corresponding author's e-mail: danai@go.buu.ac.th

ABSTRACT

Background: Thailand economic has grown for last decade in all enterprise. Especially, construction is one industry composed by various important factors such as technology finance worker and etc. Workers in construction industry are the human resources that need welfare to promote life quality of workers. One of important welfare is the residence during constructing. Camps or residence need good sanitary management for supporting for supporting life quality of worker. Aim of this study was to assess sanitation condition of residence and life quality of construction workers.

Methodology: To survey residence sanitation, Questionnaire for life quality in 3 aspects, for samples of workers in 3 camps A B C of 3 construction sites, Analyze and compare data by as percentage and criteria that provided as 4 level of sanitation condition and life quality.

Results: Camp A sanitation was 78.70% indicating the residence sanitation was in good level meanwhile 3 aspects of life quality were during 67.45 - 70.53 % defining that samples lived and worked full effective. Camp B was 62.50 % indicating fair level of sanitation meanwhile life quality were during 63.83 - 66.89 %. Camp C was 66.00 % indicating same camp B, meanwhile life quality ranged during 63.83 - 66.89 % that same Camp A and B.

Conclusion Good sanitation management of residence influence good life quality of worker. This study could be used as tool and evidence to evaluate not only sanitation condition and life quality, these also could be used to test the consistent of both.

Keywords Construction workers residence; Construction workers life quality; Outside job welfare

ICASH-A040

POTENTIAL OF HERBAL PLANTS AS ANTIHYPERTENSIVE THERAPY: A REVIEW

Merisa Restiani Arma^{*}, Maya Erisna, Sri Sumarni

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

**Corresponding author's email: merisarestiania@gmail.com*

ABSTRACT

Background: *Hypertension has become a significant health problem in the world which the sufferer increases every year. Herbal treatment for lowering blood pressure that has been widely used in many countries shows the potential as an anti-hypertensive. This study aims to provide an overview of the herbs that have the effect of lowering blood pressures as the treatment of hypertension.*

Methods: *This study used a systematic review based on the PRISMA (Preferred Reporting Items for Systematic Reviews & Meta-Analyses) protocol as a writing guideline. Electronic databases used in this study were Science Direct, PubMed, and Google Scholar. Only articles using interventions research design and containing full text both in English and Indonesian language were included in this study.*

Results: *Of 207 articles recorded in the searching literature, only fourteen articles were included in this study. Study found that herbs which had the effect as antihypertensive therapy were *Apium graveolens*, *Allium sativum*, *Centella asiatica*, *Orthosiphon stamineus benth*, *Beta vulgaris*, and *Vitis vinifera*. The main components of those herbs consisted of *n-butylphthalide*, *apigenin*, *potassium*, *flavonoids*, *triterpenoid*, *polysulfide*, *sinensetin*, *nitrate*, and *polyphenols*.*

Conclusions: *Many herbal plants found potentially lowering the blood pressures and considered as complementary treatment without any side effects. Further research is still needed on the effects of herbs in lowering the blood pressure to the human subject and its reversible effects, as well as the safety of herbs to human health when it is used for a long time.*

Keywords: *Herbs, blood pressure, antihypertensive therapy*

ICASH-A042

***Caesalpinia sappan L*: REVIEW ARTICLE**

Afifah K. Vardhani

Magister Herbal, Faculty of Pharmacy, Universitas Indonesia

*Corresponding author's email: afifah.felani@gmail.com

ABSTRACT

Background: *Caesalpinia sappan L*, synonym *Biancaea sappan L.*, is a medicinal plant used in Asia, especially India, China, and Southeast Asia. In Indonesia, Sappanwood (*Secang*) is traditionally consumed as herbal drink to boost immune system, kill bacteria, treat diarrhea, and tumor. *Caesalpinia sappan L.* contains homoisoflavonoids and phenols such as brazilin, brazilein, and other active ingredients.

Aim: The aim of this study is to report phytochemical contents and benefits of *Caesalpinia sappan L* for medicinal use.

Methods: The method used in finding articles was a literature review, using the keywords. Search was conducted electronically using several databases, including Science Direct and Google Scholar.

Results: Medicinal benefits from *Caesalpinia sappan L* have been proved by several studies. These medicinal effects are caused by the presence of *Caesalpinia sappan*'s active ingredients such as brazilin, brazilein, 3-deoxysappanchalcone, sappanchalcone, Caesalsappanins A, G, H, and I.

Conclusion: *Caesalpinia sappan L* has medicinal benefits and could be applied to treat several diseases.

Keyword: *Caesalpinia sappan L*, traditional use, medicinal use

ICASH-A043

INDONESIAN HERBS WITH ANTIFERTILITY EFFECTS ON MEN: A SYSTEMATIC REVIEW

Syafrida Ainur*, Melyana Nurul Widyawati

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: frida.sya@gmail.com

ABSTRACT

Background: *The attention and implementation of family planning programs in Indonesia tends to focus on women. Meanwhile, male contraception method has fewer types than female ones. Various herbs in Indonesia have showed potential antifertility effects on men. The objectives of this study is to identify and analyze the results of studies on the effects of Indonesian herbs on male antifertility.*

Methods: *This was a systematic review using several articles obtained from Science Direct, PubMed, Wiley Online Library, Google Scholar, and Garba Rujukan Digital databases. The inclusion criteria in this study were experimental research of the effects of herbs on antifertility; samples of studies included male mice, long-tailed male monkeys, and human sperm; and full-text article available.*

Results: *The literature search returned 1420 articles, of which 37 studies were included in the systematic review. Different Indonesian herbs were observed, such as Carica papaya (n = 8), Momordica charantia (n = 7), Piper betle (n = 5), Hibiscus rosa (n = 5), Curcuma domestica (n = 4), Areca catechu (n = 4), and Andrographis paniculata (n = 4) have been identify with different effects. Antifertility effects observed including antispermatogenic, sperm quality reduction, and the changing of the histology of reproductive organs.*

Conclusions: *Indonesian herbs are portentially used as new contraceptive methods for male subjects such as Carica papaya, Momordica charantia, Piper betle, Hibiscus rosa, Curcuma domestica, Areca catechu, and Andrographic paniculata. Further research is needed regarding the effects of herbs on human subjects, reversibility effects, and the safety of herbs on health in a long-term use.*

Keywords: *male antifertility, herbs, systematic review*

ICASH-A044

CONTROLLING DIET EXPERIENCE OF DIABETIC PATIENTS IN BUKITTINGGI, INDONESIA

Dona Amelia*, Ade Srywahyuni, Liza Merianti, Mita Yulia

Stikes Yarsi Sumatera Barat

ABSTRACT

Background: In 2015, the International Diabetes Federation reported that there were 415 million adults aged 20 to 79 with diabetes. Indonesia is among the 10 countries with the high number of diabetic patients and is ranked 7th in the world with the number of patients reaching 10.2 million. Diabetes management can be done through controlling blood sugar through 4 pillars, namely education, diet, exercise, and medication. However, the current phenomena show that many diabetics have poor dietary control so they fail maintain their blood sugar within its normal limits and are at greater risk for diabetes complications. However, we can still find diabetic patients who are able to improve their diet and control their blood sugar. Therefore, getting information from them, especially related to their experience in controlling their diet, is expected to provide hope and motivation for others. Hence, this study aims to find out and explore the experience of diabetics with controlled blood sugar and diet

Methods: This study uses a qualitative research method with a descriptive phenomenology approach. The selection of participants was carried out by using a purposive sampling technique. The number of participants in this study were 5 and data were processed through Colaizzi method.

Result: There are four themes obtained in this study namely: Self-commitment to discipline and dietary compliance, Fruit as an alternative appetite suppressant, Controlling hunger as a habit, and Channelling hunger to activities. Controlling diet for participants has been successfully done by created a new habit through controlling their hunger, so that they could keep their commitment dan discipline for dietary compliance, choosing fruits as alternative suppressant and doing activity for channeling the hunger. Therefore it is important for the nurses to educate the diabetic patients about how to deal with diet issues through controlling a hunger as a habit

Keywords: Diabetes, Diet, Patients' Experience

ICASH-A045

USING SCORECARD TO ANALYSE RISK FACTORS OF STROKE IN WEST SUMATERA INDOENSIA

Ade Srywahyuni*, Dona Amelia, Liza Merianti, Senci Napeli Wulandari

Health Science Collage Yarsi Sumbar Bukittinggi

*Corresponding author's email: uncukhil@gmail.com

ABSTRACT

Background: Stroke is one of the most frightening diseases because it may cause major deaths in Indonesia. Recently, it has caused the death for about 21.1% of all ages. The World Health Organization (WHO) predicts that deaths caused by stroke will increase—every 45 seconds a person has a stroke, and—every 4 seconds there is a death caused by stroke. At this time, there is a shift in the phenomenon; stroke does not only suffer the elderly patients, but it has now attacked the productive age or young age also. The purpose of this study was to identify the proporsion of risk of stroke in productive age of Bukittinggi population based on Risk Scorecard.

Method: The study used a survey analytic study design with approach cross-sectional. This was a population – based survey of adult households in Indonesia is about 24130 individu. The sample of this study was 322 respondents where they were taken by using simple random Sampling technique. The subjects were visited at their homes for recruitment and data collection. In each household, one or more eligible subject above the age of 18. The subject were exclude if they were mentally unable to answer the questionnaire, were not a resident in Bukittinggi, or directly declined to participate.

Result: Individuals at high risk of stroke are 20.5%, 22.4% in case of caution, and 57.1% respondents at low risk of stroke. The results of this study represent the risk of stroke with the highest frequency of distribution was in low risk respondents. It was then followed by caution respondents. The lowest frequency was scored for high risk respondents.

Conclusion: The proportion of stroke of risk found in the productive age population of Bukittinggi that were based on risk scorecard.

Keywords: Proportion, Stroke Risk, Individuals at risk

ICASH-A047

**STORIES OF MOTHERS WITH INTELLECTUAL DISABILITY
CHILDREN IN WEST SUMATERA, INDONESIA**

Liza Merianti*, Dona Amelia, Ade Srywayuni, Sari Afma Yuliane

Nursing Department, STIKes Yarsi West Sumatera Bukittinggi, Indonesia

*Corresponding author's email: lizamerianti2@gmail.com

ABSTRACT

Background: *Children with intellectual disability are rejected not only by other individuals around them but also by their own family. Even though they need support from the mother to achieve accurate conformity. The form of mother social support can be in the form of emotional support, appreciation, instrumental and informative. However, the parents of Children with intellectual disability often refuse the presence of their children. The purpose of this study was to obtain qualitative data on the experience of mothers who have intellectually disabled children*

Methods: *This study is a qualitative research conducted by interview using the semi-structured interview method. The participants were selected by using purposive sampling technique. The data were qualitative analyzed by employing Collaizi model. The participants in this study were 6 mothers who have children with intellectual disability*

Results: *Participants have a positive perception about the educational needs of children with intellectual disability. However, due to financial issues, participants do not provide education for their intellectually disabled children. They mentioned that if their intellectually disabled children were properly, they would be able to take care of themselves and would no longer depend on others.*

Conclusion: *In this study, the researchers found five themes of mothers' stories with intellectual disability child in West Sumatera, Indonesia, including (1) their unawareness of their intellectually disabled children condition; (2) disappointment as the initial response knowing their children status; (3) anxiety and worry about their children future; (4) financial issues as a factor in obstructing education, and (5) religious worship as a source of strength. The results of this study can be used in nursing practice so that families can maintain the sources of strength to accept the fact that they have children with intellectual disability and that education is very important for children with intellectual disability.*

Keywords: *Intellectual Disability, Education, Mothers' Experience, Mothers' stories*

ICASH-A048

**ANTIMICROBIAL STEWARDSHIP STRATEGY TO REDUCE
LENGTH OF STAY AND COST OF ANTIBIOTIC CONSUMPTION:
A SYSTEMATIC REVIEW**

Anak Agung Istri Agung Sri Stuti Damayanti¹, Ida Bagus Nyoman Maharjana¹, Atik Nurwahyuni²

¹Master Student of Hospital Administration and Management, Department of Public Health, University of Indonesia

²Researcher, Departement of Public Health, University of Indonesia.

*Corresponding author's email: aaia.sri@ui.ac.id

ABSTRACT

Background: Reducing the cost of care and length of stay for patient in hospital are important to monitor the benefits of implementing an antimicrobial management program. An antimicrobial management program is a strategy to decrease Antimicrobial Resistance (AMR) that affect to the treatment of the patient. One of the antimicrobial management programs is Antimicrobial Stewardship Programs (ASP). This study aims to determine the appropriate strategies in the application of Antimicrobial Stewardship Programs (ASP) that can reduce the length of stay and cost of antibiotic consumption for patient in hospital.

Methods: This study was a systematic review that used PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis) guidelines. Data obtained from Electronic databases ProQuest and Medline (PubMed) that published five years times span. By using keywords such as antimicrobial stewardship, antimicrobial resistance, length of stay, length of the hospital and patient cost to find the relevant journal.

Results: The search found 3,541 studies, of which 26 studies were included in the systematic review. After excluded the article review, there were 9 studies that used quasi-experimental, observational cohort studies and Randomized Control Trial (RCT). These studies conducted majority in Europe and USA, only 1 study that conducted in Asia. Analysis of the studies found out that 6 of 9 studies mentioned if ASP can reduce the length of stay of the patient in hospital. Only 3 of 9 studies that examined the effect of ASP in cost of care and these 3 studies mentioned ASP can reduce the cost of care.

Conclusion: This study showed that implementing ASP can reduced the length of stay and antibiotics consumption among patient in hospital by manage the antimicrobial use, conduct audits and feedback in an appropriate step, and intravenous to oral switch program.

Keywords: Antimicrobial stewardship, length of stay, cost of care

ICASH-A050

PATIENTS SAFETY CULTURE DEVELOPMENT IN JAMBI PUBLIC HOSPITAL

Anastasia Yekti Heningnurani^{1,*}, Dumilah Ayuningtyas²

¹ Hospital Administration and Management, Faculty of Public Health, Universitas Indonesia

² Department of Administration and Health Policy, Faculty of Public Health, Universitas Indonesia

*Corresponding author's email: yekti.heningnurani@gmail.com

ABSTRACT

Background: Patient safety is a serious issue in a healthcare organization. Building a patient safety culture is the first step in the improvement of safety. As patient safety culture is an inherent component of organizational culture; therefore, a study of organizational culture is required to develop it. This study aims to analyze the patient safety culture and identify the profile of the organizational culture in the hospital to find strategies to improve the patient safety culture.

Methods: This study was used the quantitative study using a cross-sectional research method, followed by a qualitative method to get descriptive information. This research conducted in Jambi Public Hospital, Indonesia with 128 respondents. Data were obtained from a survey by the HSOPSC (Hospital Survey on Patient Safety Culture) questionnaire and OCAI (Organizational Culture Assessment Instrument). Focus Group Discussion was conducted to identify obstacles and expectations in the implementation of patient safety culture.

Results: The highest positive perceptions are organizational learning and continuous improvement (90.6%) and teamwork within units (78.91%). While "staffing" (39.25) and "non-punitive responses to errors" (38.54 %) are the weakest dimension of patient safety. The most dominant type of organizational culture, followed by a hierarchy with a minimal score difference. This cultural assessment serves as a guide for changes with a quality strategy of clan culture and hierarchy culture were decided in the development of patients safety culture in this hospital.

Conclusion: The patient safety culture belongs to the moderate culture category, the reporting culture dimension is the weakest. A management's commitment and staff empowerment, as well as system development, are all needed on the development of a patient safety culture. Further research is required to investigate various factors to develop the reporting culture.

Keywords: Patient Safety Culture, Organizational Culture, Hospital

ICASH-A051

FACTORS AFFECTING MEDICAL DOCTOR TURNOVER IN THE HOSPITAL: A SYSTEMATIC REVIEW

Angesti Drea Habsari*, Jaslis Ilyas

Magister of Hospital Administration Study Program, Faculty of Public Health, Universitas Indonesia

*Corresponding author's e-mail: Angesti.drea@ui.ac.id

ABSTRACT

Background: Among others, healthcare professional is one of the main drivers in the hospital. Medical doctor plays an important role in patient-centered care system in the hospital, leading health services to patients, cooperating with other healthcare professionals. Medical doctor shortage and high turnover in the hospital has become a problem in many countries. High turnover of medical doctor can lead to an inadequate supply of health services, thereby compromising people's access to health care and endangering the quality of patient care and safety. The objective of this study is to get an overview of the factors that affect medical doctor turnover in the hospital.

Methods: A systematic review of articles published between 2014 and 2019 that contain information from all relevant published articles were extracted and analyzed.

Results: The literature search and screening process resulted in 9 (nine) studies. From the selected studies, overtime, job satisfaction, and work stress are among the things that affect the turnover of medical doctor in the hospital.

Conclusions: Consequences of high medical doctor turnover in the hospital are including financial loss, low patient satisfaction, and poor organizational practices. Factors affecting medical doctor turnover in the hospital are long work hours, job satisfaction, work stress, workplace condition, and hospital management.

Keywords: medical doctor; physician; turnover; hospital.

ICASH-A052

THE REBORN OF EXCLUSIVE BREASTFEEDING METHOD: ANTENATAL BREAST EXPRESSION (ABE) : A LITERATURE REVIEW

Aida Amalia Nur Ramadhian*, Sheyla Najwatul Maula, Ulfah Musdalifah

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: aidaramadhian@gmail.com

ABSTRACT

Background: *Antenatal Breast Expression (ABE) is believed as a potential method to improve colostrum secretion upon labor which the complex content of colostrum can prevent the infection, obesity, diabetes and malignant diseases among newborns. This study aims to to analyze and provide detailed description on the practice of ABE to support the exclusive breastfeeding program.*

Method: *Literature review was conducted in this study using the PRISMA protocol guidelines. Data were obtained by accessing electronic resources from Science Direct, Sage Publications, PubMed, and Google Scholar with 'antenatal breast expression', 'antenatal milk expression', and 'colostrum secretion' as the keywords. The articles analyzed in this study were published from 2009 to 2018 and written in English.*

Results: *There were eighty articles recorded, of which eight articles were included in the systematic review. ABE was performed every day when the pregnancy reaches 37 weeks. The average secretion time of this practice was 5-10 minutes each for 1-4 times a day, preferably during showers. The ABE affected babies in that it allowed them to get timely nutritional intake in order to stabilize blood sugar and to prevent icterus. Even though the practice of ABE was viewed differently among women of reproductive age, it nonetheless helped to improve self-confidence among breastfeeding mothers, to reduce transition interval from Early Initiation of Breastfeeding (EIB) to full lactation, to improve lactation performance, and to induce natural delivery. However, it was not yet widely practiced as it was still under consideration by the International Board Certified Lactation Consultant (IBCLC).*

Conclusion: *ABE has proven to benefit both mothers and babies, despite existing pros and cons. Therefore, there is a need for more systematic review using other keywords and methods on the safety and efficacy of ABE practice to ensure its benefit for breastfeeding.*

Keywords: *Antenatal breast expression, colostrum secretion, exclusive breastfeeding*

ICASH-A053

THE EFFECT OF MUSIC THERAPY FOR PREGNANT WOMEN : A LITERATURE REVIEW

Aisyah*, Triana Sri Hardjanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

***Corresponding author's e-mail: ikerophi@gmail.com**

ABSTRACT

Background: *Psychological problems among pregnant women such as anxiety and depression potentially have an impact on the fetus and are associated with a risk of preeclampsia. One of therapy to decrease psychological problems during pregnancy is music therapy. The aim of this study was to identify and summarize the benefits of music therapy for decreased psychological problems among pregnant women.*

Methods: *This was a literature review using several documents obtained from some databases, including Science Direct, Pubmed, Proquest, Taylor and Francis, Garuda Ristekdikti and Google Scholar. The literature search was conducted using keywords "music therapy in pregnant women" and literature published from 2008 to 2019 were selected.*

Results: *Out of 263 published literature identified, only 10 were included in this literature review. The music therapy was observed with positive impacts on pregnant women. Music therapy serves as relaxation for pregnant women which helps reduce anxiety, depression, blood pressure, and psychological stress.*

Conclusion: *Music therapy has several benefits for pregnant women's health, particularly on reducing psychological problems and blood pressure.*

Keywords: *Music Therapy, Anxiety, Blood Pressure, Pregnant Women*

ICASH-A054

THE EFFECTIVENESS OF ACUPUNCTURE ON WOMEN WITH POLYCYSTIC OVARY SYNDROME: SYSTEMATIC LITERATURE REVIEW

Andriana*, Sri Sumarni

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: undri394@gmail.com

ABSTRACT

Background: Women with polycystic ovary syndrome (PCOS) experience metabolic disorders and hyperandrogenism. The acupuncture is an alternative medicinal treatment and complimentary for the women with PCOS. The aim of this research was to identify acupuncture effectiveness for metabolism problem and hyperandrogenism for the women with PCOS.

Methods: This was a systematic review using several published literature obtained from science direct and PubMed of electronic databases and other sites through the PRISMA method using the Boolean operator's system (AND). The inclusion criteria consisted of the studies with Randomized controlled trial (RCT) published in 2009 to 2019, women with PCOS aged 18 to 45 years old as the subjects, the intervention using all of the kind of acupuncture that was compared to placebo, physical training, sham, and medicines. Meanwhile, exclusion criteria were studies with systematic review and meta-analysis, focusing on intervention, medicines, and physical training by using experimental animals. The measurement value of HOMA-IR, LH, FSH, ratio LH/FSH, TT, FT, SHBG, and DHEA-S.

Results: The search resulted in 509 studies, of which a total of 6 studies were included in this systematic review. The acupuncture has effects on metabolism problem and hyperandrogenism for the women with PCOS, such as the decrease of HOMA-IR (3 studies) and LH tense (2 studies), LH/FSH ratio reduction (3 studies), as well as, the decline of TT tense (4 studies) and FT tense (4 studies), but the increase of SHBG tense (3 studies), and the decrease of DHEA-S (2 studies). However, the tense of FSH had no significant change in all of the studies.

Conclusions: The acupuncture can be effective in solving the metabolism problem and hyperandrogenism of women with PCOS.

Keywords: Acupuncture, Polycystic Ovary Syndrome (PCOS), Hormone, Alternative medicinal treatment, Randomized Controlled Trial.

ICASH-A056

IS THE MULTIPLE MICRONUTRIENTS BETTER TO REDUCE ANEMIA IN PREGNANCY COMPARED TO IRON- FOLATE ACID SUPPLEMENTATION? A SYSTEMATIC REVIEW

Beniqna Maharani Besmaya*, Runjati Runjati, Ari Suwondo, Siti Nurharisah

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: beniqnamaharani@gmail.com

ABSTRACT

Background: Prevalence of anemia continues to increase among pregnant women in Indonesia. The micronutrients that are needed to reduce the anemia is still lacking to be accessed by pregnant women. This study aims to analyze the effectiveness of multiple micronutrients (MMN) compared to the iron-folic acid to reduce the incidence of anemia among pregnant women.

Methods: Systematic review was used in this study using the electronic databases Google Scholar, Science Direct, and PubMed. The articles included in this study were published in 2009-2018 and were written in English language.

Results: In total, 380 papers were identified and six articles were included in this study. Study found that the MMN and iron-folic acid had the same effect in influencing the anemia status among pregnant women. However, the MMN had a potential to increase the average of body weight, to reduce the incidence of low birth weight (LBW) and preterm birth among pregnant women.

Conclusions: The effectiveness of multi micronutrients in pregnant women is as good as iron-folic acid in reducing the anemia during pregnancy. Further studies need to be conducted to see the effects of MMN on pregnant women by considering other factors such as maternal nutritional status, gestational age, and duration of supplementation

Keywords: anemia, multiple micronutrients, iron-folate acid, pregnancy

ICASH-A057

**ANTIMICROBIAL ACTIVITY OF KERSEN (*Muntingia calabura* L.)
LEAVES: A SYSTEMATIC REVIEW**

Diah Ulfa Hidayati*, Runjati Runjati

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding authors' e-mail: diahulfa16@gmail.com

ABSTRACT

Background: Many kinds of antibiotics are being used for treating the infections, but bacterial resistance is a main therapeutic problem. Medicinal plants are one of sources of therapeutic aid for relieve human illness.

Muntingia Calabura is a medicinal plant that might have pharmacological value. *Muntingia Calabura*, is called throughout the world as "Jamaican cherry" and in Indonesia, it is known as "Kersen" or "Talok". This study aims to analyze the antimicrobial activity of *Muntingia calabura* leaves.

Methodology: This systematic review was conducted from December 2018 to February 2019 using PRISMA reporting guidelines. Literature has been retrieved from MEDLINE, Science Direct, Google Scholar, PubMed, Springer Link, and IEEE Xplore, use key words *Muntingia calabura*, phytochemical, pharmacological, and antimicrobial. The articles written by English.

Results: From 9 studies, the antibacterial test for *Muntingia calabura* leaves was carried out on 18 types of microorganisms. *Muntingia calabura* leaves proved to be effective against *S. aureus* and *P. aeruginosa* bacteria. 4 studies showed negative results use *Muntingia calabura* in certain types of bacteria.

Conclusion: Therefore, this plant can be used for treatment of bacteria. This study is also presented to help guide researchers to plan their future studies related to this plant for preventing the bacterial infection, especially in obstetrics and gynecology.

Keywords: *Muntingia calabura*, antimicrobial activity, pharmacological activities

ICASH-A058

UPDATE: METABOLIC DISORDERS OF PREECLAMPSIA A REVIEW

Dian Aprilia Damayanti*, **Mardiyono Mardiyono**

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Indonesia

*Corresponding author email: apriavaliid229@gmail.com

ABSTRACT

Background: *Preeclampsia is one of the contributors to the increased maternal morbidity and mortality rates in Indonesia. One of the disorders caused by the preeclampsia is metabolic disorders. The purpose of this study is to provide an overview of metabolic disorders that accompany preeclampsia.*

Methods: *This was a literature review using electronic databases Science Direct and PubMed. Keywords used in searching literature were 'preeclampsia' and 'metabolism disorder of preeclampsia' with the year limit between 2010 and 2018. Articles published in English was chosen in this study.*

Results: *The search found 3,823 articles, of which 14 articles were included in this study. Metabolic disorders that happened in the group of preeclampsia were higher RDW (Red blood cell distribution width), MTT (Biomarker), ADA (adenosine deaminase), CA-125 serum, triglycerides (TG), Angiotensin, cytokinin, CEC (Circulating endothelial cells), lipoprotein and cholesterol. Meanwhile, studies also found that preeclampsia caused the lower selenium serum, aromatase, and thiol-disulphide in the body.*

Conclusion: *Preeclampsia proved causing the disorders of metabolic, mostly in the form of inflammation, endothelial cell damage and oxidative stress. Potential targets are needed for treatment of metabolic disorders in preeclampsia group both medically and non-medically especially for the lipid levels in preeclampsia.*

Keywords: *Preeclampsia, metabolic disorders*

ICASH-A059

**EFFECTS OF HEGU POINT SUPPRESSOR (LI 4) AND BIRTH BALL
TECHNIQUE ON LABOR PAIN: A REVIEW**

Dina Anggraini* , Triana Sri Hardjanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Indonesia

*Corresponding author email: dina_anggraini76@yahoo.com

ABSTRACT

Background: *Pain in labor is the cause of fear, anxiety and childbirth trauma among pregnant women so that it affects the health condition of the mother and the fetus. Non-pharmacological methods such as pressing the hegu point (LI 4) and birth ball technique are believed in reducing the intensity of labor pain without side effects. This study aims to analyze the effect of pressing hegu point (LI 4) and technique birth ball on labor pain.*

Methods: *This was a literature review using PRISMA-P (Preferred Reporting Items for Systemic Review and Meta-Analysis Protocols) to identify all published articles with 'point hegu (LI 4)', 'birth ball', and 'labor pain' as the keywords. Electronic databases such as Google Scholar and Science Direct were used in searching the articles that were published between 2011 and 2019. Other criteria were articles that used experimental research design and written in English and Indonesian language.*

Results: *There were 18,072 articles recorded, of which 10 articles were included in the systematic review. By pressing hegu points (LI 4) for 20 minutes to 240 minutes, it helped mothers to reduce labor pain. Sitting on a birth ball by wiggling the pelvis relieved the labor pain, improved the self-control, as well as felt satisfied with birth experiences.*

Conclusion: *Methods of pressing hegu points (LI 4) and birth ball techniques can effectively reduce the intensity of labor pain. Further study can be conducted using other keywords and methods.*

Keywords: *Hegu point (LI 4), birth ball, labor pain*

ICASH-A060

SYSTEMATIC REVIEW METABOLIC DISRUPTION IN GESTATIONAL HYPERTENSION DISORDER

Diyas Windarena*, Siti Nurharisah, Benigna Maharani, Mardiyono Mardiyono

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Indonesia

*Corresponding authors' e-mail: diyaswinda@gmail.com

ABSTRACT

Background: *Gestational hypertension is one of the diseases responsible for increased morbidity and 18% of maternal deaths in the world. Gestational hypertension has complex causes and symptoms, so pathogenesis is difficult to determine. Complications of gestational hypertension will cause Preeclampsia. This study aims to explain the metabolic disorders experimented by women with gestational hypertension. This description can be used as an early detection tool for hypertension so that complications can be prevented.*

Methodology: *Searching articles for this research is done by searching in the google scholar, science direct and PubMed databases. Only full text and written by english will be included in this study. The keyword that is used "Risk Factor" or "Metabolic" and "Gestational Hypertension" or "Blood Pressure" or "Pregnancy Hypertension" with the year limit between 2009 – 2019. A systematic review of PRISMA was used in this study. The study focused on the discussion about gestational hypertension in pregnant women.*

Results: *12 research articles were found it is known that pregnant women with gestational hypertension have serum calcium, magnesium, nitric oxide, vitamin D, cobalt and iodine which tend to be lower than normal pregnant women. Whereas cadmium levels tend to be high can stimulate oxidative stress which is able to worsen the condition leading to preeclampsia.*

Conclusion: *Health checks on pregnant women can be used as a basis for screening and treatment. Methods of checking calcium levels that allow as medium for screening in detecting the severity of hypertension and predicting disease risk.*

Keywords: *Hypertension, Pressure, pregnant women*

ICASH-A061

COMPLEMENTARY AND ALTERNATIVE MEDICINE (CAM) IN THE FIRST STAGE OF LABOR PAIN: A LITERATURE REVIEW

Dwi Apriani*, Ulfah Musdalifah, Tecky Afifah Santy Amartha

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Indonesia

*Corresponding author's e-mail: dwiapriyani1254@gmail.com

ABSTRACT

Background: *Excessive pain in labor leads to the side effects on the maternal and neonatal health. Many strategies for labor pain management have been studied, including complementary therapies, yet the comparison of the effectiveness among them needs to be explored more. This study aims to analyze the effectiveness of complementary therapies to reduce pain in the first stage of labor.*

Methods: *This was a literature review using electronic databases from Google Scholar, PubMed, Science Direct, EBSCOhost and text books. The keywords of searching literature were 'complementary therapy', 'pain', and 'first stage labor'. All articles reviewed in this study were written in English and Indonesian language with the published year 2010 until 2018.*

Results: *In total, there were 44 out of 232 publications included in this study. Complementary therapies that can be used to reduce first-stage labor pain were aromatherapy, acupressure, and hypnotherapy. Using lavender aromatherapy, pressing the point of L14, SP6, BL32 as well as the use of hypnobirthing showed significant influence in reducing the pain at the first stage of labor among pregnant women.*

Conclusion: *Acupressure is more effective in reducing the pain at the first stage of labor than other alternative techniques. In order to effectively manage the pain at the first stage of labor, a combination of complementary therapies and pharmacological treatment is needed.*

Keywords: *complementary and alternatives medicine, first stage labor pain*

ICASH-A062

COMPLEMENTARY THERAPIES FOR LABOR INDUCTION AND THEIR LEGALITY IN INDONESIA: A LITERATURE REVIEW

Dwi Hesti Diah Citrawati, Listyaning Eko Martanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Indonesia

*Corresponding author's e-mail: dwihestidc6@gmail.com

ABSTRACT

Background: Labor induction is performed using two methods of pharmaceuticals and complementary therapies. The complementary therapies for labor induction in particular, have to be reviewed comprehensively as to come up with the most relevant therapies allowed to be performed by midwives in Indonesia in accordance with the applicable law. This study aimed to identify the effectiveness and safety of complementary therapies for labor induction that can be performed and also allowed by the applicable law.

Method: This was a literature review based on the PRISMA protocol guidelines. The full-text articles were obtained from several databases, such as Elsevier, Cochrane, PubMed, and local journals. These chosen articles were then reviewed to figure out the most effective interventions for labor induction. They were then further reviewed for compatibility with applicable midwifery law.

Results: Out of 1153 studies obtained, 44 studies were included in this review. The most effective complementary therapies for labor induction are acupuncture and acupressure. The current law does not allow midwives to perform acupuncture, but it states that acupressure can be administered. Acupressure has proven to be a successful intervention when it is coupled with aromatherapy or hypnobirthing.

Conclusion: Considering the effectiveness and safety of complementary therapies for labor induction, acupressure along with aromatherapy or hypnobirthing can be used after being administered in accordance with the applicable law. There is a need for further studies focusing on either the holistic therapy alternatives or the legal side of holistic therapy.

Keywords: Complementary therapies, labor induction, midwifery law

ICASH-A063

NON PHARMACOLOGICAL TREATMENTS FOR BREAST ENGORGEMENT: A SYSTEMATIC REVIEW

Ertitawai Siregar*, Triana Sri Hardjanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

Corresponding author's email: ertitawati@gmail.com

ABSTRACT

Background: Mothers often suffer breast engorgement at the beginning of postpartum, and one of the causes is early breastfeeding cessation. Management of breast engorgement should be done well to support the success of exclusive breastfeeding. This study aimed to review and identify the non-pharmacological treatments that have potential effects on reduced breast engorgement

Methods: This was a systematic review prepared according to the standard guidelines of the Joanna Briggs Institute (JBI). Article search used electronically. The two databases used were the PubMed and Cochrane library. English-language articles, and full text using the keywords of "treatment breast engorgement" OR "lactating" OR "cabbage compress". The inclusion criteria were the studies with Randomized controlled trial (RCT) published from 2009 to 2019, the respondents were postpartum mothers who breastfed their babies, and intervention was non-pharmacological action research and not a medical action.

Results: Out of 5,927 articles resulted from the literature search, there were 5 articles that met the inclusion criteria and included in this systematic review with a total number of 882 participants. The treatment used in dealing with breast engorgement varied, such as 2 studies used cold cabbage leaf and the remaining studies used these non-pharmacological treatments, respectively: hot herbal compresses, cold hollyhock herbal compress, the intervention of Gua sha. All the results of the study stated that the intervention was effective in reducing breast pain and engorgement.

Conclusions: Herbal compresses, leaf compresses hollyhock, cabbage compresses and Gua sha therapy can be used to treat breast engorgement during lactation, but more rigorous follow-up studies are needed to see which interventions are most effective using larger samples.

Keywords: Breast engorgement, breastfeeding, a non-pharmacological, systematic review

ICASH-A064

THE EFFECT OF LOVING TOUCH STIMULATION THERAPY FOR INFANTS' WEIGHT GAIN

Fatatu Malikhah*, Melyana Nurul Widyawati, Sutarmi, Siti Kistimbar, Taryatmo, Kusmini

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's e-mail: fatatumulikhah45@gmail.com

ABSTRACT

Background: Low Birth Weight (LBW) is one of the risk factors that have a high contribution to infant mortality. Increasing the baby's weight is used as an indicator to determine LBW growth. In LBW babies, touch therapy is a form of stimulation to increase endurance, digestive function activities, and vagus nerve activity.

Objective: This study aims to determine the effect of Loving Touch Therapy (LTT) as one of the effective non-medical methods to increase body weight in LBW that can be done by parents during home care.

Method: This study was a quantitative study using an experimental design and Randomized Controlled Trial (RCT) design. This research conducted in 15 respondents in the intervention group with four weeks' LTT and 15 respondents in the control group who were given Tactile Kinesthetic Stimulation (TKS). Data were obtained from measurements of body weight before and after the intervention then the data were analyzed using independent t-test with significance level p -value <0.05 and multivariate analysis using linear regression.

Results: 19 respondents female (63.3%) and 11 respondents male (36.6%) was participated in this research by the frequency distribution of the gender. It was a significant increase in body weight in LBW with LTT carried out by his mother for 28 days compared with TKS stimulation. The differences in the average weight gain are 197 grams. The difference is statistically significant.

Conclusions: It can be concluded that LTT is more effective in increasing body weight in LBW post-hospital care because the technique is simple and sequential from the front to the back of the baby's body which makes it easier for parents to understand and physiologically doesn't lose much an energy.

Keywords: Low Birth Weight Baby, Loving Touch Stimulation Therapy, Male and Female Body

ICASH-A065

ACUPRESSURE AND YOGA COMBINATION CAN REDUCE ANXIETY DURING PREGNANCY: A SYSTEMATIC REVIEW

Ida Ayu Putu Dewi Adnya Suwari*, Melyana Nurul Widyawati, Ni Putu Dian Ayu Anggraeni

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's e-mail: idaayuadnya@gmail.com

ABSTRACT

Background: *Untreated anxiety during pregnancy causes the health problems among mothers and the fetus. Complementary and Alternative Medicine (CAM) such as acupressure and yoga is seen as the alternatives to deal with this anxiety. This study aims to determine if the combination of acupressure and yoga is effective to reduce anxiety during pregnancy.*

Method: *This study was a systematic review using the guidelines of the PRISMA. Articles were obtained from electronic databases Scopus, Science Direct, and PubMed by identifying published articles from January 2013 to March 2019. Articles were identified using keywords 'acupressure', 'prenatal yoga', and 'anxiety in pregnancy'. All articles included in this study were only those who used intervention research design in the form of an RCT and pilot study.*

Results: *Ten of 1186 articles met the intended criteria in this study. The results showed that acupressure and yoga have significant benefits in reducing anxiety among pregnant women. It was also found that this combination potentially prevented the postpartum depression.*

Conclusion: *Acupressure and yoga interventions can be combined as non-pharmacological therapy to reduce anxiety during pregnancy. Further research with more specific interventions is needed to provide evidence of reducing anxiety during pregnancy.*

Keywords: *acupressure, prenatal yoga, anxiety during pregnancy*

ICASH-A066

EFFECTIVENESS OF PRENATAL YOGA ON PREGNANCY ANXIETY AND DEPRESSION: A SYSTEMATIC REVIEW

Ismi Puji Astuti*, Suharyo Hadisaputro

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Indonesia

*Corresponding author's email: ismipujiastuti@gmail.com

ABSTRACT

Background: *Physiological and psychological changes during pregnancy process can cause discomfort to pregnant women. During pregnancy, pregnant women from developed and developing countries tend to have an increase in anxiety and symptoms of depression. If not properly managed, those situations can adversely affect maternal and infant health. This systematic review is to explore the effectiveness of yoga in order to reduce anxiety and depression in pregnant women.*

Methods: *This systematic review was based on Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA Protocol). Publication screening was carried out by filtering the 2009-2019 English and Indonesian articles from electronic data sources, namely PubMed, PsycINFO, Google Scholar and Science Direct. The keywords used in the literature searching were 'anxiety', 'depression in pregnancy', 'prenatal yoga', 'yoga in pregnancy', 'pregnancy', and 'complementary and alternative medicine in pregnancy'.*

Results: *The search identified 368 record, of which 8 articles were included in this study. Studies regarding to the effect of yoga in pregnant women has been shown to reduce anxiety scores, pregnancy depression, anger, sleep disorders, lower maternal cortisol hormones, improve maternal immunity and neonatal outcomes.*

Conclusion: *Yoga could be applied as a complementary therapy that was easy, low cost, and useful for reducing anxiety and depression in pregnant women.*

Keywords: *Anxiety, yoga in pregnancy, depression in pregnancy, prenatal yoga*

ICASH-A067

**DETERMINANT OF EARLY MENARCHE AT MUARA MEGANG
ELEMENTARY SCHOOL SOUTHERN SUMATRA**

Kiki Yusika*, Sri Rahayu

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: kikiyusika28@gmail.com

ABSTRACT

Backgrounds: High rate of early menarche is one of the problems that should be the focus of government attention because the health impact will be in the future. The purpose of this study was to determine the effect of diet, physical activity and exposure to mass media on early menarche at Students Elementary School Muara Megang Southern Sumatra 2017.

Methods: This research used a quantitative study with cross sectional design. Purposive sampling technique was done in the fifth and sixth graders with total population of 69 people. After selecting those who experienced early menarche, thirty respondents were eligible in this study. Univariate, bivariate correlation test, and multivariate multiple linear regression were employed to analyze the data.

Results: The correlation test resulted in the score of diet ($p\text{-value}=0.001$), physical activity ($p\text{-value}=0.040<0.05$) and exposure to mass media ($p\text{-value}=0.454$). It was concluded eating patterns and physical activity had significant correlation with early menarche among students. Meanwhile, the mass media exposure had no significant influence to incidence of early menarche. Multivariate test results were obtained from the results of multiple linear regression tests of eating patterns ($0.011<0.05$) affecting the incidence of early menarche while physical activity ($0.463>0.05$) and exposure to mass media ($0.733>0.05$) had no effect on the incidence of early menarche.

Conclusions: This study recommends a need of coordination between health center and the health office to conduct counseling or form peer consultants involving young women to be more able to get to know themselves.

Keywords: Physical Activity, Mass Media Exposure, Early Menarche, Dietary Habit

ICASH-A068

**EFFECTIVENESS OF BROWN SEAWEED (*Sargassum sp.*) AS
NATURAL ANTIOXIDANT FOR ENDOTHELIAL CELL
PROTECTION IN PREECLAMPSIA: A LITERATURE REVIEW**

Lia Arian Apriani* , Ida Ariyanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: [arianlia020495 @ gmail.com](mailto:arianlia020495@gmail.com)

ABSTRACT

Background: Seaweed as one of the natural resources has many potential bioactive ingredients. One of them is Phaeophyceae which shows the highest antioxidant activity among other seaweed. *Sargassum sp* has many potential bioactive ingredients in the pharmaceutical field which has been supported by several scientific studies. This study aims to expose all information related to abilities *Sargassum sp* as an antioxidant for endothelial cell protection in preeclampsia in a comprehensive and systematic manner.

Methods: This study was a systematic review that used the prism protocol. Data obtained from Electronic databases Science Direct, Springer, DOAJ, NCBI and Google Scholar that published between 2009 and 2019. By using keywords such as an antioxidants of *Sargassum sp*, preeclampsia and antioxidants, as well as antioxidants and endothelial cells to find the relevant journal.

Results: The search found 963 articles, of which 215 articles were included in the inclusion and exclusion criteria. The final results obtained 8 articles that are suitable for this literature review. Majority of studies used the same method namely experimental, 3 other studies uses meta-analysis randomized controlled trials, and a case-control study. Analysis of the studies found out that *Sargassum sp* contains phenolic compounds which function as antioxidants in fighting free radicals and as protection against endothelial cells in preeclampsia.

Conclusion: *Sargassum sp* is proven to have the value of high antioxidant effect that is able to fight free radicals and is able to protect endothelial cells in preeclampsia. Therefore, this study is presented to assist researchers in planning their future studies related to seaweed in preventing preeclampsia in the fields of obstetrics and gynecology and with the hope of potential future drug development.

Keywords: *Sargassum sp*, Antioxidants, Endothelial Cells, Preeclampsia

ICASH-A069

THE PERIOD OF PERINEAL WOUND HEALING IN POSTPARTUM MOTHERS BETWEEN THE DECOCTION WATER TREATMENTS OF BINAHONG LEAVES WITH RED BETEL LEAVES

Nahdiyah Karimah*, Nur Khafidhoh, Triana Sri Hardjanti, Riska Ismawati Hakim

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Indonesia

*Corresponding author's e-mail : nahdiyahkarimah@gmail.com

ABSTRACT

Background: *The global prevalence of the second degree of the perineal wound of postpartum mothers is 73.4%. Pharmacological treatments have a cytotoxic effect. Other treatments is Non-pharmacological treatments are such as using decoction waters of binahong leaves and red betel leaves. Both have compounds that accelerate epithelialization of wounds. This study aims to analyze the differences of the perineal wound recovery period of postpartum mothers between the decoction water treatments of binahong leaves compared to red betel leaves.*

Methodology: *This study is a quasi-experiment post-test only without control group design. There are 32 respondents meeting the inclusion criteria who are taken by accidental sampling. The sample is divided equally into two groups, namely binahong group and the red betel group. Binahong or red betel leaf decoction waters are used for genital washing after urinating at the last rinse at 7 am and 3 pm on 1-3 postpartum days. Perineal wound recovery is assessed by using the REEDA score from the second postpartum day until the wound fully recovered. Statistic analysis with chi-square, time series analysis, Mann Whitney and Kruskal Wallis test.*

Results: *The average of perineal wound recovery period of binahong group is 6 days, while the red betel group is 4.69 days. There are significant differences of perineal wound recovery period between the binahong group and the red betel group with a p-value of $0.0001 < \alpha (0.05)$. Respondents' characteristics are age, BMI, frequency of changing pads, and educational background between binahong and red betel groups have no significant differences.*

Conclusion: *Red betel leaf decoction water is recommended for postpartum mothers suffering perineal wounds. Further research is needed with a larger number of respondents and true experiments are needed to analyze the effect of red betel leaves on perineal pain, platelets, and leukocyte level.*

Keywords: *binahong leaves, red betel leaves, perineal wound's treatment*

ICASH-A070

COMPREHENSIVE THERAPY FOR POLYCYSTIC OVARY SYNDROME: KEY POINTS TO IMPROVE QUALITY OF LIFE

Noviyati Rahardjo Putri*, Melyana Nurul Widyawati

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's e-mail: noviyatirahardjoputri@gmail.com

ABSTRACT

Background: Polycystic Ovary Syndrome (PCOS) is an endocrine disorder that affects the hypothalamus, pituitary, and ovary. PCOS prevalence has increased from 4 -6% to 8 -10%. This syndrome results in both physical illnesses and psychological disorders. Women with PCOS tend to be more prone to psychological disorders compared to healthy women. PCOS increases the risk of anxiety by 7 folds. *This study aims to analyze measures to reduce psychological disorders caused by PCOS based on numerous psychological disorder parameters and hormonal biomarkers with psychological therapies.*

Methodology: *This study is based on the PRISMA protocol guidelines. The literature review was performed by accessing ScienceDirect, PubMed, Sage Publications and Google Scholar. The inclusion criteria for the articles are full-text papers written by English from 2009 to 2018. The keywords used to find suitable articles are "anxiety, stress, distress, depression, and quality of life management in polycystic ovary syndrome". Nine articles were subsequently reviewed.*

Results: Psychological therapies that can be applied for PCOS include holistic yoga, acupuncture, spiritual guidance, mindfulness stress management, relaxation, and guided imagery, progressive muscle relaxation and administration of herbal, probiotic and selenium medication. *Those therapies have proven to lower anxiety, stress, depression, and psychological fatigue as they were measured using instruments of Montgomery Åsberg Depression Rating Scale (MADRS-S), Brief Scale for Anxiety (BSA-S), Swedish Short-Form36 (SF-36), PCOS Questionnaire (PCOSQ), Beck Depression Inventory, DASS 21 and STAI. Meanwhile, observed biomarker responses include lower levels of cortisol, adrenalin, testosterone, and malondialdehyde (MDA) and a higher level of endorphin.*

Conclusion: *Psychological therapies for PCOS have proven to lower psychological disorders as measured by numerous parameters and biomarkers. Therefore, psychological therapies have to be further developed to decrease psychological disorders because of Polycystic Ovary Syndrome. Such as symptoms of anxiety and prevent deterioration of social mental health.*

Keywords: *Anxiety, stress, distress, depression, and quality of life management in polycystic ovary*

ICASH-A071

EFFECT OF MORINGA LEAVES AND VITAMIN C CAPSULE COMBINATIONS IN INCREASEING HEMOGLOBIN LEVELS OF YOUNG WOMEN WITH ANEMIA

Nur Anisa, Sri Wahyuni, Sri Rahayu, Aulia Choirunnisa, Listyaning Eko Martanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's e-mail: nisaaa2@gmail.com (NA) and auliachrns2@gmail.com (AC)

ABSTRACT

Background: *The prevalence of anemia suffered by girls aged 10-18 years according to the Household Health Survey (SKRT) is 57.1%. The highest contributor of anemia cases in Central Java is Grobogan district, especially in Tanggunharjo Community Health Center, with increasing prevalence of anemia among young women in 2017 from 5.4% to 25.7%. Based on background, researcher wants to determine the effect of Moringa leaf combination dozed 250 mg x 2 / day and vitamin C 50 mg x 2 / day on hemoglobin level changes of young women suffering anemia to decrease anemia in young women*

Methodology: *This quasi experimental research with pretest-posttest control group design involved young women aged 14-19 years suffering anemia. The method of sampling selection was purposive sampling with total 22 respondents assigned as intervention group and other 22 respondent assigned as intervention group. The data analysis used Mann-Whitney test.*

Results: *The average of hemoglobin level in the intervention group increased from 9.37 to 12.10. It proved statistically that there was effect of giving Moringa leaf and vitamin C combination to increase level of hemoglobin of young women suffering anemia.*

Conclusion: *Moringa leaves could significantly increase hemoglobin levels in blood of young women suffering anemia. Raising awareness of anemia and its prevention and treatment among young women should be recommended.*

Keywords: *Anemia, young women, Moringa leaf, Vitamin C, hemoglobin*

ICASH-A072

USING THE SMARTPHONE APPLICATION FOR PREGNANCY CARE: A LITERATURE REVIEW

Raffiky Pinandia Sustamy*, Rizqi D Pratiwi, Sri Wahyuni

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: raffikypinandia@gmail.com

ABSTRACT

Background: Smartphones are new media that provide greater benefits than conventional health education. It provides ease and quick access information for users and they may repeat any time. This study aims to analyze the use of various applications related to assessment care, including pregnancy.

Methodology: The literatures was collected from e-databases such as Science direct, PubMed, and Google Scholar. Journal criteria used by using RCT (Randomized Controlled Trials (RCTs) techniques and English-language journals. 5 international journal articles were found by using the keywords "smartphone applications" and "pregnancy care". The journal had to be conducted in 2014-2019.

Results: The smartphone application was a medium that used to get information easier, faster and efficient. Those 5 journal articles were conducted in Indonesia (1 journal), Australia (3 journals), and USA (1 journal). It has been proven in 5 research articles to show effectiveness results in information acquisition, management of anxiety, weight management, management of antenatal care visits and management of childbirth preparations, thus helping pregnant women to optimally care for pregnancy. Overall, all of the applications were effective as the health promotor media.

Conclusion: The future recommendations are needed to improve the materials and the information in term of pregnancy. The usage of application as health education media should be develop for low middle-income household.

Keywords: Smartphone, Pregnancy, Application

ICASH-A073

WHAT HAPPENS IF THE BROMELAIN IN *Ananas comosus* L. Merr. GIVEN TO PEOPLE LIVING WITH HIV/AIDS (PLWHA) ? : A REVIEW

Reni Hariyanti¹, Sri Sumarni²

Master of Applied Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

Corresponding authors' e-mail: renihariyanti913@gmail.com

ABSTRACT

Background: Human immunodeficiency virus /Acquired immunodeficiency syndrome (HIV/AIDS) is a global problem that requires serious treatment. Antiretroviral therapy (ART) has the potential to cause side effects and drug resistance for people living with HIV/AIDS (PLWHA). Alternative therapies using combination of bromelain and ART to maintain and improve immunity of PLWHA. The objective of the study was to describe the potential of bromelain in pineapple (*Ananas comosus* (L.) Merr) to increase the immune system of people living with HIV/AIDS.

Methodology: The research method used a systematic literature review. The literature that this study used was search through in the Science Direct and Google Scholar database. The article search used the keyword *Ananas comosus* (L.) Merr, HIV/AIDS healing pathway or bromelain enzyme healing pathway HIV/AIDS and Pineapple "bromelain enzyme" for HIV/AIDS. Obtained 4 articles from 219 articles published between 2010 until 2019. The article used in this study written in English and Indonesian.

Results: The results showed that the bromelain enzyme in pineapple have proteolytic properties that can destroy the protein layers of the HIV viruses. The other benefit are immunomodulators that can increase the immune system of PLWHA by increasing CD4 counts or maintaining the stability of the CD4 count and reducing viral load levels even undetectable.

Conclusion: The conclusion of this study is bromelain in pineapple can be used as an alternative cure for PLWHA which do not have side effect and can destroy the HIV virus protein layer and increasing the immune system of PLWHA as well.

Keywords: bromelain against PLWHA, *Ananas comosus* (L.) Merr. immune system of PLWHA

ICASH-A074

FOOT REFLEXOLOGY FOR WOMEN AND FETAL WELLBEING IN LABOR : A REVIEW

Riska Ismawati Hakim¹, Nahdiyah Karimah², Putri M Saptyani³, Sri Wahyuni M⁴

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Indonesia

Corresponding authors' e-mail: riskaismawati94@gmail.com

ABSTRACT

Background: *The secretion of catecholamine and epinephrine due to excessive fear and anxiety during labor will increase the intensity of pain and potentially prolonged labor. Reflexology massage leads to release endorphins and enkephalins which have an analgesic effect five times greater than morphine, creates a deep feeling of comfort and balance of mind so the stress symptoms are reduced, and improves the outcomes of labor. This study aims to analyze the effects of foot reflexology for women and fetal wellbeing in labor.*

Methodology: *This systematic review used PRISMA-P (Preferred Reporting Items for Systemic Review and Meta-Analysis Protocols). The keywords used were reflexology or foot reflexology, pain relief, labor pain, primiparaous, effect or effectiveness. Articles were searched through databases PubMed, Google Scholar, and Science Direct. Inclusion were articles that discussed about reflexology and its effects in labor, experimental research and written in English. The selected articles were excluded for irrelevant titles and abstracts, non-full text, research under 2009 and duplicate articles. From 78 articles, only 8 articles were included in this systematic review.*

Results: *This study found that foot reflexology can reduce the intensity of labor pain. It was also decreased duration, anxiety, hemorrhage rate, systolic and diastolic blood pressure, pulse and increased uterine contractions, Apgar scores and maternal satisfaction with a highly statistical significant.*

Conclusion: *Foot reflexology could decrease the intensity of labor pain, anxiety, duration, maternal complications and increase uterine contractions. In addition to improve labor outcomes and mother satisfaction. It is recommended as non pharmacological method which can be applied in maternity hospitals to improve women and fetal wellbeing during labor.*

Keywords: *reflexology, labor, maternal and fetal wellbeing*



ICASH-A075

**THE INFLUENCE OF GALBLADDER ACUPRESSURE POINT 21
(JIAN JING) AND STOMACH 18 (RU GEN) IN INCREASEING
BREASTMILK PRODUCTION**

Rizkie Aulia Amini^{1,*}, Sri Rahayu¹

Master Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Indonesia

Corresponding author's email: rizkiaulia909@gmail.com

ABSTRACT

Background: *The breast milk is the best food for the babies containing white blood cells, proteins and immune substances which are suitable for them. Various treatments have been applied to increase breast milk, including pharmacological and nonpharmacological methods. Among the nonpharmacological methods are complementary acupressure treatments which include gallbladder 21 (Jian Jing) and stomach 18 (Ru Gen). This study aims to determine the effect of acupressure points gallbladder 21 (Jian Jing) and stomach 18 (Ru Gen) on breast milk production in postpartum period.*

Methodology: *This study used quasi experimental design with pretest posttest with control group design. The population of this study all postpartum mothers around the researcher's work area in Ngesrep and Pegandan Health Center, Semarang City in May-June 2017 who met the inclusion criteria. The number of samples are 22 postpartum mothers who are in 3-7 postpartum days. The sampling technique is purposive sampling.*

Results: *The results showed that the difference of average baby weight as an indicator of breast milk production before and after intervention was 2889 grams to 2776 grams with a difference of 112 grams in the treatment group and 2901 grams to 2683 grams with a difference of 246 grams in the control group. The statistical independence tests showed that there was an effect of acupressure point gallbladder 21 (Jian Jing) and stomach 18 (Ru Gen) on breast milk production in postpartum period ($p < 0.001$).*

Conclusion: *From the results study, it is expected that acupressure can be socialized and applied among health workers as one of the techniques to facilitate breast milk production in postpartum period.*

Keywords: *acupressure, gallbladder 21, stomach 18, breast milk, postpartum period*



ICASH-A077

**FACTORS AFFECTING IRON AND FOLIC ACID CONSUMPTION
AMONG ADOLESCENTS: A LITERATURE REVIEW**

Stevani Basuki Putri*, Elisa Ulfiana

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Indonesia

*Corresponding authors's email : putristevani46@yahoo.co.id

ABSTRACT

Background: *Adolescents who experience anemia in 2018 reach 48.9%. The Indonesian government's program on taking blood tablets is done once a week. Anemia in adolescents in 2013 to 2018 has increased by 11.8%. This study aims to determine factor that related to iron and folic acid supplement consumption.*

Methodology: *Research articles are reviewed from several sources, which is Pubmed, Science Direct, and Google Scholar. The article written by English with key words for compliance with iron tablets and folic acid, side effects and other influencing factors. This article search starts from 2009 to 2019 and related books.*

Results: *Anemia in adolescents is still a problem. Factors that influence the regularity of drinking iron and folic acid supplementation include the side effects caused, how to consume the iron and folic acid supplement correctly without combine with other drinks, socio-cultural factors, and difficulties swallowing tablets.*

Conclusion: *Policies that need to be implemented are health promotion by increasing knowledge about anemia, the importance of iron and folic acid and conducting periodic supervision. This supervision can be done by carrying out the movement of taking iron tablets and folic acid simultaneously at the same time and day that is directly supervised by the school teacher.*

Keywords: anemia of adolescents, iron tablets, folic acid

ICASH-A078

**SELF-INTERNALIZATION FACTORS FOR CONDOM USE AMONG
COMMERCIAL SEX WORKERS (CSW) IN PREVENTING HIV / AIDS
TRANSMISSION**

Wahyu Diana Rahmawati *, Listyaning Eko M², Ribkha Itha I³, Nuril N⁴

Master of Applied Science in Midwifery, Politeknik Kesehatan Kemenkes Semarang, Indonesia

*Corresponding author's email: Wahyudianar@gmail.com

ABSTRACT

Background: *The existence of localizations of commercial sex worker (CSW) may increase the HIV/AIDS cases. It might be due to individual's perception to prevent HIV/AIDS transmission remains low. STI (Sexually Transmitted Infections) such as Gonorrhoea and Chlamydia are the diseases which is caused of sexual intercourse. This study aims to describe the internalizations factors to apply condom as the preventive approaches and to investigate the correlation between cognitive level and attitude with condom application.*

Methodology: *This descriptive cross-sectional study was enrolled by 65 of 258 CSW's clients in Sadar alley, Banyumas Regency, Indonesia. Accidental sampling was used to select the respondents. Inclusion criteria were CSW's clients, willing to be respondents, and had sexual intercourse in the alley. The dependent variable was condom application and the independent variables were cognitive level and attitude. The data analysis was done by Spearman Rank.*

Results: *More than a half of respondents had a good cognitive level to prevent HIV/AIDS transmission and more than three fourth had a support attitude. Among 65 respondents, 48 of them had intension to use condom. The cognitive level and attitude were found with strong correlation with condom applications ($p < 0.001$).*

Conclusions: *Cognitive level and attitude had an important role related to condom applications. Public health promotor should take an action to educate CSW and CSW's clients to prevent HIV/AIDS transmission.*

Keyword: *HIV/AIDS, Attitude, Cognitive Level, Condom Application*

ICASH-A080

COULD HERBAL MEDICINE BE A COMPLEMENTARY THERAPY IN LEUCORRHEA TREATMENT AND CARE?

Zubaeda*, Nur Khafidhoh

Master of Applied Science in Midwifery, Poltekkes Kemenkes emarang, Semarang, Indonesia

*Corresponding author's e-mail: zubaeda95@gmail.com

ABSTRACT

Background: *The frequency of using the antibiotics and antifungals as a treatment of leucorrhea may cause the bacterial and fungal resistance. Therefore, a treatment is not always optimal and sometimes leads the infection to be worsen. The herbal medicine is needed as an alternative treatment. This study aims to examine the effectiveness of using various herbal medicine in the management of leucorrhea.*

Methodology: *The literature review was conducted in several electronic databases i.e., Google Scholar, Science Direct, and PubMed. The protocol for this study was PRISMA. The keywords such as "herbal medicine" and "leucorrhea" or "vaginal infection" were used to select the literatures. This study only selected the studies conducted during 2000 to 2019, presented in English and used clinical trial research design.*

Results: *This study obtained 10 of 5184 total publications from electronic databases. The publication about herbal medicine for leucorrhea, both of herbal medicine and placebo, herbal medicine compared to conventional medicine and herbal medicine combined with conventional medicine showed that herbal medicine could reduce the symptoms and complaints of leucorrhea which had the ability to be an antimicrobial agent. In contrast, 2 studies revealed the side effects of herbal medicine, i.e., irritation, vomiting, and dry vagina.*

Conclusion: *Herbal medicine was effective as a treatment of leucorrhea and had the prospect to develop as a complementary therapy for treating the leucorrhea.*

Keywords: *Leucorrhea, complementary therapy, herbal medicine*



ICASH-A081

ATTITUDES TOWARDS HIV AIDS AMONG MIDWIFERY STUDENTS IN YOGYAKARTA

Niken Meilani ^{*}, Nanik Setiyawati

Midwifery Department, Health Politechnic of Yogyakarta (Poltekkes Kemenkes Yogyakarta)

Pusat Unggulan IPTEK Novakesmas, Poltekkes Kemenkes Yogyakarta

*Corresponding author's email: nikenbundaqueena@gmail.com (NM), nanikyogya@gmail.com (NS)

ABSTRACT

Background: *The incidence of Human Immunodeficiency Virus (HIV) infection in the world remains high as a challenge in achieving some targets of Sustainable Development Goals (SDGs). Midwifery students have very important role to prevent the mother to child transmission of HIV. Attitude was one indicator of a person's behavior or often also called close behavior. Negative attitude may lead stigma and discrimination for managing HIV/AIDS patient. The aim of this study was to determine the factors related midwifery student's attitude towards HIV/AIDS.*

Methodology: *This cross-sectional study was conducted among 130 applied science midwifery students in Yogyakarta who were selected by proportional sampling. A self-administered questionnaire was used in this study. Knowledge was measured through true and false statement questions and attitude towards HIV measured through Likert scale. The analysis of univariate, bivariate, and multivariate were analyzed by computer.*

Results: *More than three fourth of the respondents were 21 years or older. The bivariate analysis found HIV information from lecturer, HIV information from clinical instructors, experience managing HIV patient, and level of knowledge were significantly associated with attitudes towards HIV/AIDS. After adjusted to other variables in multivariate analysis, the level of knowledge had the association with attitude. Particularly, poor knowledge students were 2.26 times more likely to have negative attitude towards HIV/AIDS compared to those had good knowledge.*

Conclusion: *Knowledge was the most influencer factors of attitude toward HIV/AIDS. The midwifery education curricula may consider to have more specific information about HIV/AIDS in order to increase the student's knowledge.*

Keywords: *Human Immunodeficiency Virus (HIV), midwifery, knowledge*



ICASH-A082

SCRAPBOOKING RELATED TO PERSONAL HYGIENE HABITS AND PREVENTION BEHAVIOR OF PATHOLOGICAL LEUCORRHOEA

Hesty Widyasih*, Yani Widyastuti

Midwifery Departement, Poltekkes Kemenkes Yogyakarta

*Corresponding author's e-mail: hestywidya79@gmail.com

ABSTRACT

Background: Leucorrhoea is the vaginal secretion in term of physiological or pathological. Around 90% of girls in Indonesia have the potential to experience leucorrhoea. Personal hygiene habit is one of the factors that play an important role in avoiding infections that can cause vaginal discharge. Scrapbooking is the art of attaching photos or images on print media and decorating them into creative works. This concept was developed in this study as an alternative media for teenagers to make it easier to remember the health messages. This study aims to determine the effect of scrapbooking on personal hygiene habits and prevention behavior of pathological leucorrhoea for Islamic boarding students (santri).

Methodology: The design of this study was a quasi-experimental design with pre-posttest design with control group. The research subjects were 150 female students (75 as a control group and 75 as an experiment group) from the Islamic Boarding School (PP) Ali Maksum Bantul, PP. Salman Al Farisi Sleman and PP. Bina Umat Sleman. Data was analyzed by using univariate and bivariate (paired t-test and independent sample t-test).

Results: Most of students have experienced pathological leucorrhoea (80%). Scrapbooking and giving leaflets both have a significant influence on improving personal hygiene habits ($p = 0.000$) and prevention behavior of pathological leucorrhoea ($p = 0.001$). There was a scrapbooking effect on personal hygiene habits ($p = 0.029$) and prevention behavior of pathological leucorrhoea ($p = 0.000$).

Conclusion: There was an effect of scrapbooking on personal hygiene habits and prevention behavior of pathological leucorrhoea. The Boarding school officials can actively participate to motivate students for maintaining personal hygiene through various media that make more interesting. Health workers can use various media to provide counseling about personal hygiene and leucorrhoea prevention.

Keywords: Scrapbooking, Personal Hygiene Habits, Leucorrhoea

ICASH-A083

**RISK FACTORS FOR IRON DEFICIENCY ANEMIA IN INFANTS
AGED 6 MONTHS IN TEGAL REJO PUBLIC HEALTH CENTER,
YOGYAKARTA, INDONESIA**

Yuni Kusmiyati^{1,*}, Siti Tyastuti², Yulita Rizky², Nirmala Sari²

¹ PUI Novakesmas, Poltekkes Kemenkes Yogyakarta, Yogyakarta, Indonesia

² Midwifery Department, Poltekkes Kemenkes Yogyakarta, Yogyakarta, Indonesia

*Corresponding author's e-mail: yuni_kusmiyati@yahoo.co.id

ABSTRACT

Background: Anemia is a global public health problem affecting both developing and developed countries with major consequences on human health as well as social and economic development. Anemia resulting from iron deficiency that may adversely affects the infants' cognitive and motor development. This present study aimed to explore the risk factors iron deficiency anemia (IDA) in infants aged 6 months.

Methods: This is a case-control design study. This study randomly selected a total of 164 six-month-old infants from Tegal Rejo Public Health Center of Yogyakarta consisted of 82 infants with anemia (hemoglobin level is less than 11 gr/dl) and 82 infants with normal hemoglobin levels. A complete medical record and interview were employed to obtain the possible factors affecting iron deficiency anemia including the breastfeeding provision status, the infants' birth weight and sex, and the mother's education, age and employment. The data was then analyzed using a logistic regression and a chi-square test to find the correlation between the risk factors and anemia conditions in the infants.

Results: This study shows that there is no significant difference between the two groups when consider infants' birth weight and sex to the anemia incidence. It is also found that mother's age, education, and employment do not present significant difference to the anemia cases. From this study, only the breastfeeding provision will contribute significant difference between the group consisted of infants with anemia and the group where the infants measured with normal hemoglobin level (p value = 0.021). From the logistic regression, the study found that the exclusive breastfeeding is the only risk factor associated with the incidence of anemia (p value = 0.022). It is noted that the infants who were not received the exclusive breastfeeding had a risk 2.16 times (95% CI 1.116-4.191) to have anemia.

Conclusions: This present study conclude that the exclusive breastfeeding provision is the significant risk factor on iron deficiency anemia in infants aged 6 months after controlling for other factors. Therefore, it is expected that this result can be applied and implemented by maternal and child health practitioners to establish prevention programs for iron deficiency anemia by eliminating or minimizing risk factors.

Keywords: Iron deficiency, Anemia, Exclusive breastfeeding, 6-month-old infants.



ICASH-A084

HEALTH LITERACY AND DIABETES RISK FACTORS SCORE

Elis Fitria*, Ester Inung Sylvia, Gad Datak

Health Polytechnic of Palangka Raya (Poltekkes Palangka Raya), Indonesia

*Corresponding author's e-mail: elisefitria@gmail.com

ABSTRACT

Introduction: Health literacy is an ability of people to get, process and understand the health information and services to make a health decision. Diabetes Mellitus (DM) is known as one of major health problem around the world. Decreasing the new cases of DM can be done by applying healthy lifestyle. Health literacy affects to people's life style. This study aims to examine health literacy level of civil administration servant in Central Kalimantan with Diabetes risk factors score.

Methods: Totally 42 respondents were recruited in this study. HLS-EU-Q16 was used to measure health literacy level and Finnish Diabetes Risk Score (FINDRISC) questionnaire was used to measure diabetes risk factors score. The data was analyzed in univariate and bivariate analysis used Chi-square.

Results: Majority of respondents had aged under 45 years old (85.7%) and male (54.8%). The health literacy level of respondents was high (59.5%) and most of them had low risk of diabetes (69.0%). By using Chi-square, health literacy level was statistically significant with diabetes risk factors score ($p=0.028$). The risk factors for diabetes that mostly found were overweight, low physical activity, family history of diabetes and not consumed fruit and vegetables every day.

Conclusion: Health literacy level was statistically significant with diabetes risk factors score. The government should promote healthy lifestyle to decrease the risk of getting non-communicable disease such as Diabetes Mellitus not only for civil servant but also general population.

Keywords Health literacy, Diabetes risk factors, Civil servant, Central Kalimantan

ICASH-A085

DETERMINANTS OF PRE-DIABETES ON TEENAGERS IN PALANGKA RAYA CITY

Ester Inung Sylvia*, Gad Datak, Visia Didin Ardiyani

Health Polytechnic of Palangka Raya (Poltekkes Palangka Raya), Indonesia

*Corresponding author's e-mail: esterinung@yahoo.co.id

ABSTRACT

Background: Pre-diabetes is a stage prior to diabetes mellitus (DM) and many studies in west countries found the risk factors of diabetes were mostly related to the nutritional status of being overweight and obese. Diabetes mellitus is not only experienced by adults but also by teenagers. They have the potential for pre-diabetes because they may have unhealthy lifestyles such as smoking, consuming alcohol, high-calories, and junk foods and lack of physical activity. This study aims to determine the risk factors of pre-diabetes among senior high school students in Palangka Raya, Central Kalimantan, Indonesia.

Methods: This study was a qualitative study using a questionnaire as an instrument for data collection. It consists of a set of questions on diabetes risk. This research conducted in four public senior high schools in Palangka Raya with the total sample was 131 respondents have participated in this research.

Results: 25 respondents (19.1%) from a total sample of 131 participants suffered from pre-diabetes and 30.5% of respondents had a family with DM. Some students (6.9%) had a smoking habit and 13% incidence of pre-diabetes in high school students related to these factors ($R^2: 0.13$). Only less than half of the total respondents (43.5%) had a normal BMI. As many as 39.7% of respondents were undernourished while the rest were overweight.

Conclusions: Pre-diabetes factors on teenagers in Palangka Raya are female dominate had a history of DM, and being overweight. This study further leads to the importance of weight control that focusing on physical activity and dietary management as early precautions. Health education is required to suppress the number of risk factors for diabetes.

Keywords: Pre-diabetes, Palangka Raya High School Students, Indonesia



ICASH-A087

**KARUNGUT MUSIC REDUCES ANXIETY OF ADOLESCENT
PREGNANT MOTHER**

Riyanti*, Legawati

Midwifery Diploma III Study Program, Health Polytechnic of Palangka Raya (Poltekkes Kemenkes Palangka Raya), Central Kalimantan Province, Indonesia

*Corresponding author's e-mail: riyantihelena@gmail.com

ABSTRACT

Background: Adolescent pregnancy is being a problem in Indonesia. Adolescent pregnancy can bring problem not only to the baby's health but also the mother's health as well. It can cause problem in society too. The pressure from family and society towards adolescent who got pregnant, especially if they get pregnant without marriage can lead the mother to face anxiety during the pregnancy. The anxiety during pregnancy can bring negative impact to the baby and mother. This study aims to determine the effect of Karungut music to the anxiety level among pregnant adolescent in Kapuas Regency, Indonesia.

Methods: This study was an analytical study with a quasi-experimental. Totally 60 respondents were recruited in this study used simple random sampling. 30 respondents were chosen to be experimental group meanwhile the rest as control group. The data was analyzed in univariate and bivariate analysis. binary logistic regression was used to analyze in multivariate level.

Results: Majority of the respondents in this study were did the Antenatal Care regularly (55%), had high motivation for pregnant (51.7%), got families support (71.7%) but not from the health workers (83.3%). The multivariate analysis showed that heard Karungut music can reduce the anxiety level among pregnant adolescent (OR= 3.33) after controlling other variables.

Conclusion: Listening Karungut music during pregnancy can reduce the anxiety among pregnant woman. It can be considered as an alternative way to improve the health status among pregnant adolescent by reducing one of risk factor that can affect to the pregnancy. Supporting from family and health workers also important during pregnancy to reduce the anxiety.

Keywords: Anxious, Music Karungut, Pregnant Adolescent



ICASH-A088

APPLICATION INDEX CARD MATCH TO IMPROVE MIDWIVES' KNOWLEDGE ON HIGH-RISK PREGNANCY DETECTION USING SCORE CARD POEDJI ROCHYATI IN SORONG, PAPUA

Ariani Pongoh*, Sunaeni

Midwifery Department, Health Polytechnic Ministry of Health Sorong

*Corresponding authors' email: ani.pongoh@yahoo.co.id (AP); octopusaeni@gmail.com (Su)

ABSTRACT

Background: The risk of maternity can be either mild or severe, which can lead to death or morbidity for the mother and/or baby. Risk detection effort is very important in anticipating the pregnancy emergencies. Only 5 out of 10 midwives in Sorong Regency shows adequate knowledge of early detection of pregnancy risks and referral system. The purpose of the study is to identify the effect of the application of Index Cards Match in order to increase the knowledge of midwives to detect the high risk of pregnancy using the Poedji Rochyati Card among midwives in Health Centers in the Sorong City and Regency in 2018.

Methods: This type of research is Quasi Experiment, by using the pre test and post test control group design. The study was conducted in Health Centers in area Sorong City and Regency from August to December 2018. The population was Midwives in the City Health Center and Sorong Regency, with the total population is 150 midwives. Simple random sampling technique was utilized, the sample in this study was 28 midwives in the Health Centers in Sorong City and Regency. The respondent were divided into control and observation groups. In the control group obtained 4 people or 28.6% (4b) of the total 14 people in the have improved their knowledge after getting information using visual media experienced. The data was then analysed by using Wilcoxon Signed Rank Test obtained asymp.sig value of $0.739 > 0.005$. Whereas in the Index Card Match method there is an increased in knowledge as many as 10 people or 71.42% (10b) of a total of 14 people in the observation group, the statistical test results obtained Asymp.sig $0.032 < 0.005$.

Results: There is a significant difference in the level of knowledge of midwives in determining the high risk of pregnancy between the deliveries of information using the Poedji Rochyati Score Card visual media as compared to using the Index Card Match method.

Conclusion: The Health Centers institution have been good at perform its role. Nevertheless, they still need improvement on midwives skill in recognizing the various health problem among pregnant mothers and the detection of early pregnancy complication. Public Health Centers need to organize early detection of pregnancy risks and complications. Midwives are expected to make right decision on the occurring pregnancy complications.

Keywords: Index card match, Detection of pregnancy, Risk score cards Poedji Rochyati, Midwives.



ICASH-A089

**MICROENCAPSULATION OF KARAMUNTING LEAF EXTRACT
(*Rhodomyrtus tomentosa*) AS AN INSTANT DRINK POWDER**

Teguh Supriyono^{*}, Agnescia Clarissa Sera

Nutrition Department, Health Polytechnic of Palangka Raya (Poltekkes Palangka Raya), George Obos 32, Palangka Raya 73112, Central Kalimantan, Indonesia

^{*}Corresponding author's e-mail: tegoeh_xobo@gmail.com

ABSTRACT

Backgrounds: *Karamunting (Rhodomyrtus tomentosa), a local wild plant from Central Kalimantan, Indonesia is believed by the Dayak tribe to treat diabetes mellitus. Based on the literature review, there have been no studies related to Karamunting focused on processed products in practical dosage forms in the form of instant powder, which has the longest shelf life. This study aims to explore the solubility and percentage of insoluble solids of Karamunting leaf powder that has been encapsulated with the addition of Maltodextrin. In addition, an assessment of the sensory attributes of Karamunting leaf drinks was also carried out.*

Methods: *This study was used an experimental with applied the Randomized Block Design (RBD) design with 2 factors, comparing the number of Karamunting leaf extracts and the concentration of Maltodextrin to produce a formula of 0.5L:5%, 0.5L:10%, 0.5L:15%, 1L:5%, 1L:10% and 1L:15%. This research conducted in the Laboratory of Agricultural Product Technology, Gadjah Mada University, Yogyakarta, Indonesia from November to December 2018.*

Results: *The application of spray dryer produced fine powder of Karamunting drink. It has a distinctive aroma and its color was ranged from bright cream to slightly brownish. Addition of Maltodextrin significantly accelerated powder's solubility and decreased its yield ($p < 0.05$). Panelists tend to prefer products with 1 L of Karamunting leaf extract and 10% Maltodextrin.*

Conclusions: *Solubility rate of Karamunting leaf extract is strongly influenced by the concentration of Maltodextrin. The higher the concentration of Maltodextrin, the faster the product will be dissolved. Addition of Maltodextrin significantly reduced the total of insoluble solids. However, antidiuretic activity of Karamunting drink should be investigated to prove its health claim.*

Keywords: *Karamunting Leaves, Maltodextrin, Instant Drink Powder, Encapsulation*



ICASH-A090

GUIDELINES USING POTENTIAL STAKEHOLDERS IN ENHANCING REPRODUCTIVE HEALTH AND IDEAL MARRIAGE AGE EDUCATION IN NATIONAL POPULATION AND FAMILY PLANNING BOARD'S YOUTH INFORMATION AND COUNSELLING CENTER

Duly Apika Sari; Poschanan Niramichainont

Faculty Social Science and Humanities, Mahidol University, Thailand

*Corresponding author's E-mail: dulyapikasari@gmail.com; poschanann@gmail.com

ABSTRACT

Background: Reproductive health education in school seemed less concerned by the Government in Indonesia. Reproductive health was not yet inserted in the curriculum, as a result, it was implemented through the youth center inside the school, like YICC. Participation of stakeholders may contribute for enhancing this YICC, moreover, in decentralisation era in Indonesia today. Furthermore, less research about stakeholder analysis made this research was necessary to do.

Aims: To map stakeholders and explore guidelines from potential stakeholders in enhancing reproductive health and ideal marriage education in National Population and Family Planning Board of Indonesia (so-called BKKBN)'s Youth Information and Counselling Center in Jakarta Province, Indonesia.

Methodology: This research applied the descriptive qualitative method and used Power versus Interest grid mapping model. 27 organizations were asked in-depth interviewed and Focus Group Discussion with semi-structured questions about their power and interest to YICC in two cities in Jakarta: Center of Jakarta and East of Jakarta.

Result: The results were in mapping and guidelines. In mapping stakeholders, from the 27 stakeholders in the mapping model, most of the stakeholders were in the area 3 who were placed by stakeholders in provincial and local level with characterised low power and high interest, while stakeholders in national level placed in area 1 was in high power and low interest. The guidelines recommended actions based on the area on the mapping model. These findings were prominently recommended for inputting the appropriate YICC into the system of the school for the sustainability of the programs.

Conclusion: The power versus interest grid model pictured that the engagement of national stakeholders was less than provincial and local stakeholders in YICC. This program should be run under regulations between Ministry of Education and Culture for the sustainability of the YICC programs. Also, the YICC should be continuously monitored in the practical context.

Keywords: Reproductive health and ideal marriage education, stakeholders analysis, Youth Information and Counselling Center

ICASH-A091

DENGUE HEMORRHAGIC FEVER (DHF) EDUCATIVE GAME TO IMPROVE KNOWLEDGE AND SKILL OF ELEMENTARY SCHOOL CHILDREN IN DHF PREVENTION

Abiyyu Naufal Susanto*, Maryana, Titik Fajriyati Nur Khasanah, Francilia Deastuti, Raden Roro Brilianti Chrisnajyantie, Anggita Nurlitasari

Nursing Department, Health Polytechnic of Yogyakarta, Tata Bumi Street 3, Gamping, Sleman, Yogyakarta 55293

*Corresponding author's e-mail: abiyyu.ans@gmail.com

ABSTRACT

Background: The Ministry of Health of the Republic of Indonesia released data on the number of dengue fever sufferers in Indonesia on January 29, 2019 there are 13,683 cases and increased to 16,692 cases on February 3, 2019. The Director General of Disease Prevention and Control said that 90% of cases of dengue fever were children under age of 15 years. The Ministry of Health noted the number of cases of dengue hemorrhagic fever (DHF) in January 2019 increased to 121.8% compared to January last year. This study aims to examine the effect of educational games on increasing the knowledge and skills of elementary school age children about the prevention of dengue fever. **Methods:** To test the hypothesis, this study uses experimental research methodology to determine the results of treatment of a particular group to produce an innovation and recommendations for prevention of dengue fever in children. **Results:** This educational game can increase children's interest in learning to prevent dengue fever and improve their ability to prevent dengue fever. Educational games methods for elementary school age children can influence children's understanding and skills in preventing dengue fever at the age of elementary school children. This study was able to describe the effect of educational game with clean and healthy behaviour that more effective to prevent the incidence of dengue fever in elementary school-aged children. **Conclusion:** This educational game needs to be continuously applied and developed to reduce the incidence of dengue fever in children under 15 years of age. In the future, researchers should have to developed more modern design it can be like a virtual game that more attractive for the children. So, the goals of this research can be achieved.

Keywords : Game, Mosquito, Elementary school children



ICASH-A092

THE RELATIONSHIP BETWEEN AGE, GENDER, AND BODY MASS INDEX TO THE PREVALENCE OF FLATFOOT IN PRIMARY SCHOOL CHILDREN IN LAWEYAN

Suci Muqodimatul Jannah

Department of Physiotherapy, Universitas 'Aisyiyah Yogyakarta, Indonesia

Corresponding author's e-mail: sucimuqo@gmail.com

ABSTRACT

Background: Flatfoot is a postural deformity relating to the collapse or flattening of the medial longitudinal arch. It often appears with symptoms and varying degrees of deformity and disability. Flatfoot can be influenced by two factors; internal and external factors. The purpose of this study is to estimate the correlation between age, sex and body mass index (BMI) with the prevalence of flatfoot in primary school children in Laweyan.

Methods: This study was an analytic observational study with cross sectional approach. A sample of 285 subjects was obtained through the sample size calculation with the research formula for the proportion of one group. The subjects were 68 students of SDIT Insan Mulia and 217 students of SDIT Nur Hidayah which obtained by stratified random sampling. Inked foot print test and Chippaux Smirak Index were used to identify the flatfoot.

Result: There were 172 people (60.4%) experienced flatfoot with the highest number at age 7 years (67.9%) and there was no association between age and flatfoot ($p > 0.05$). The prevalence of flatfoot was higher in male than female and 78.7% of obese children had flatfoot with $p < 0.05$. The prevalence of flatfoot grade 1, grade 2, and grade 3 were 82%, 11%, and 6,4% respectively.

Conclusion: There was correlation between gender and BMI with flatfoot, but there was no correlation between age and flatfoot. The association between flatfoot and BMI does not mean BMI is a contributing factor to the occurrence of flatfoot in children.

Keywords: Age, gender, BMI, flatfoot



ICASH-A093

PREVALENCE OF SKIN DISEASES IN THE COASTAL AREA OF TELUK NIBUNG NORTH SUMATRA

Izzah Dienillah Saragih, Tri Niswati Utami, Fitriani Pramita Gurning

Faculty of Public Health UIN Sumatera Utara

Corresponding author's e-mail: izzah.dienillah@gmail.com

ABSTRACT

Background: In an observational study of The Global Burden Disease stated skin diseases contributed to 1.79% of lost productive days worldwide due to itching, scratching, or secondary infections which accompanying. Skin diseases are among the three biggest diseases in Tanjung Balai City with 7.230 cases in 2017. Tanjung Balai is a coastal region on the East Coast of North Sumatra with Teluk Nibung as the largest Subdistrict which had characteristics of tropical climates, high density, the lack of basic sanitation and personal hygiene and it caused the population susceptible to skin diseases. The study is to find out the prevalence of skin diseases in Teluk Nibung 2018.

Methods: This was an observational study using data sourced from surveillance of infectious diseases in Teluk Nibung Health Center regarding the 10 biggest diseases in the one Primary Health Care (Puskesmas) in 2018. The study was conducted in April 2019. Data were analyzed descriptively using univariate analysis with table and graphs of skin diseases frequency and distribution

Results: Skin disease was the third largest disease in Teluk Nibung Subdistrict with 2.208 cases in 2018. Disease trends increased throughout 2018 with significantly increased in May. The proportion of skin diseases was bigger among the female group, which is 56%. The environmental conditions in Teluk Nibung reflected coastal areas with high-density population, unhealthy settlement conditions, and the lack of basic sanitation and personal hygiene.

Conclusions: Skin Disease is still a major health problem in Teluk Nibung due to the climate, weather, and the lack of environmental health factor. It needs for researchers conducted research on skin diseases related to basic sanitation, personal hygiene among society in the coastal area and stakeholders need to create policy improved health environment.

Keywords: Skin disease, coastal area, North Sumatra

ICASH-A094

**THE BUSINESS STRATEGIC PLAN FOR RSD KOLONEL
ABUNDJANI BANGKO YEAR 2019 – 2023**

Arismen*, Amal Chalik Sjaaf

Faculty of Public Health, University of Indonesia

Corresponding author's email: arismen.1212@gmail.com

ABSTRACT

Background: *The progress of the hospital industry now requires effective management to improve the quality and quality of service appropriate to the standard goals. Preparation of this business strategic plan should involve decision-maker in hospitals and existing organizational resources efficiently and effectively by taking into account current conditions. This study aims to provide a comprehensive review of the process of preparing a hospital business strategic plan so that an alternative strategy can be obtained for the next 5 years.*

Methods: *This study was used operational research, qualitative method with in-depth interviews and hospital performance reports analysis. External and internal environment factors included finance, customer, demographics, geography, policy, marketing, information system, human resources, physical facility and organization were used as evaluated variables. SWOT analysis and Balanced Scorecard framework were used to identify critical success management factors. The Consensus Decision Making Group (CDMG) matrix were used to determined factor evaluation matrix as a final score.*

Results: *Based on an analysis of external and internal environmental factors, alternative strategies that are suitable for current hospital conditions are market penetration and service product development. In order to realize this strategy there are several things that must be of particular concern, namely the limited resources that are available which include the availability of human resources and financial support and there is no available integrated hospital information system.*

Conclusion: *The business strategy plan recommended for developing RSD Kolonel Abundjani Bangko's services for the next 5 years is market penetration and service product development. In order to realize this strategic plan requires a strong commitment from all human resources in the hospital and related stakeholders.*

Keywords: *Hospitals, strategic plans, business strategy*



ICASH-A095

**PERCEPTION OF WOMEN OF REPRODUCTIVE AGE TOWARDS
LONG-ACTING CONTRACEPTIVE (LAC) COUNSELING OF
FAMILY PLANNING COUNSELORS: A QUALITATIVE STUDY**

Asdawati*¹, Adang Bachtiar²

¹Post Graduate Student of Department of Health Policy Administration, Public Health Faculty,
University of Indonesia, Depok

²Department of Health Policy Administration, Public Health Faculty, University of Indonesia, Depok

*Corresponding author's email: andialwiasdawati@yahoo.com

ABSTRACT

Background: Long-acting contraceptive (LAC) is one kind of birth control method for preventing, spacing pregnancy or stopping the fertility for an extended period. Increasing the number of LAC user can be done by providing a good quality of LAC counseling. This study aims to explore the perception of reproductive woman in LAC counseling by family planning counselors.

Methods: This study was a qualitative study with Rapid Assessment Procedure (RAP) design. This study conducted in Bontomatene, Selayar Island on April 2019. There were 6 samples that represent 3 samples used LAC and 3 samples used non-LAC. The in-depth interview was used to get the information and the interactive model analysis was used in analyzed the data.

Results: 5 of 6 respondents mentioned when the family planning counselor explained LAC used native language was easier to understand. The counseling by family planning counselor was already good because the counselor explained in detail information about LAC, visited the house of respondents to give information and did not push the respondents to select contraceptive methods.

Conclusions: The reproductive woman in Bontomatene, Selayar Island feel more comfortable with LAC counseling held by family planning counselor if using native language, explain in detail information and not force respondent to use LAC methods.

Keywords : Counseling, Long-Acting Contraceptive, Perception of Woman Reproductive Age

ICASH-A096

ANALYSIS OF CST (CASE, SUPPORT AND TREATMENT) AT H ABDUL MANAP HOSPITAL IN JAMBI CITY IN 2018

Cici Lia Nopita*, Mardiaty Nadjib

Department of Hospital Administration, Public Health Faculty, University of Indonesia, Depok

*Corresponding author's e-mail: cicilia.nopita@gmail.com

ABSTRACT

Background: *The CST clinic of H. Abdul Manap, the regional public hospital is the only type-C a hospital which provides ARV (Anti Retro Viral) treatment service in Jambi City. However, in the past five years, the trend of CST clinic utilization has tended to decrease. This research aims to analyze the factors affecting the decrease in the utilization of the CST clinic of H. Abdul Manap regional public hospital, Jambi City.*

Method: *This study was used the qualitative method with purposive sampling technique. This research conducted in 37 participants were employed to obtain the primary data sources from observation and in-depth interviews with key informants. Those key informants included the management team (3 people), CST Clinic team (7 people), PLWHAs (18 people) and peer counselors (8 people) as well as FGDs (Focus Group Discussions).*

Results: *The commitment of the concerned stakeholders, especially the chairman of the hospital and the CST team members in administering the CST service, has not been maximum. The budget allocation for CST clinic in the hospital was only for and limited to staff incentives. There had been no position for team leaders and case managers, while the doctors and staffs had not received any CST training. Some staffs even served double jobs.*

Conclusion: *The service SOP, as well as the scheduled and continuous monitoring on SOP implementation and progress evaluation according to CST Clinic performance indicators, are required. The necessary of regional policies related to CST service, especially for the provision of CD4 reagents and tariffs; and the hospital director's decree to instruct not to refuse to treat PLWHA are also required. The Implication is a strong commitment from all stakeholders, especially the chairman of the hospital and the CST team members are required to improve the clinic utilization.*

Keywords: *Analysis, Service System, CST Clinic*

ICASH-A097

**THE IMPLEMENTATION OF CODE STEMI PROGRAM TO AFFECT
THE QUALITY OF HEALTHCARE IN ST-ELEVATION
MYOCARDIAL INFARCTION (STEMI) PATIENTS:
A SYSTEMATIC LITERATURE REVIEW**

Eka Ginanjar*, Amal C Sjaaf

Faculty of Public Health, Universitas Indonesia

*Corresponding author's e-mail: ekginanjar@gmail.com

ABSTRACT

Backgrounds: *The Clinical importance of coronary artery disease manifests as Acute Coronary Syndrome with the highest mortality is known as ST-Elevation Myocardial Infarction (STEMI). Delay in STEMI management not only affect mortality and complications, but also healthcare quality. The CODE STEMI program was developed to shorten the time and reduce delay in treatments for STEMI patients. This study aims to review the effect of CODE STEMI program implementation on clinical outcome and healthcare quality in STEMI patients.*

Methods: *This study was a systematic review of literature that used meta-analysis (PRISMA) protocol. Data obtained from Electronic databases Google Scholar, PubMed, and MEDLINE that published over several years and we began on May 2019. Assessment of healthcare quality was based on Donabedian theory that consists of 7 main components, efficacy, effectiveness, efficiency, optimality, acceptability, legitimacy and equity. Analysis between studies was reported as descriptive narration.*

Results: *The search found 15 studies, of which 4 studies as the final results that are suitable for this literature review through the keyword findings CODE STEMI, STEMI, and quality of healthcare. Studies in several countries over the globe reported a decrease of door-to-balloon/ diagnosis-to-wire time. Some studies reported reduced mortality, complications, and cost after implementation of CODE STEMI program, while others only found insignificant trends.*

Conclusions: *Implementation of CODE STEMI protocol made a better Quality of Healthcare. However, it needs further study to review and evaluate the effect of CODE STEMI implementation, especially on the quality of healthcare in STEMI patients.*

Keywords: *CODE STEMI, STEMI, Quality of Healthcare, Donabedian Theory*

ICASH-A099

THE STANDARDS OF MEDICAL CARE WITH SELF CARE FOR DIABETES MELLITUS OUTPATIENTS

Handi Wirawan*, Prastuti Soewondo

Department of Public Health, Universitas Indonesia

*Corresponding author's e-mail: handi.wirawan@ui.ac.id

ABSTRACT

Background: *Diabetes mellitus (DM) is a chronic disease that will be carried for life. DM management requires the participation of doctors, nurses, nutritionists, and other health workers. Based on this, Diabetes mellitus (DM) requires awareness, self care and collaboration from all health workers. The awareness, self care and collaboration of health workers on the importance of carrying out two-way services in patients with diabetes mellitus are the supporting forces in the DM case control program according to the standard of medical care. This study is to find out the standard of medical care with self care for diabetes mellitus outpatients.*

Methods: *A systematic review through an article review to find out the standard of medical care with self care for diabetes mellitus outpatients. The inclusion criteria for the articles used were diabetes mellitus outpatients self care, while the exclusion criteria were abstract articles, articles that did not use English and the non full text articles. Article search is limited to articles in English accessed from internet searches from databases, namely: NCBI and Knowledge E with the keyword standard medical care, self care, and diabetes mellitus.*

Results: *Based on the 7 articles with the same title, the screening was carried out according to the criteria for inclusion and exclusion, obtained 5 articles for further review. Self care in diabetes is a series of skills that are very important to improve the effectiveness of self management in diabetes awareness of the patient itself and collaboration with health workers. Nurses deal with collaborative problems both between health workers and patients by using doctor's provisions and prescribed interventions, to minimize complications from the occurrence.*

Conclusion: *One of the most factor that need to be improved to decreased the case of DM is how to maintain the self care of DM outpatients. It is very important because the self care is helping the outpatient with DM to maintain their own health. Because of that, the important recommendation for DM outpatient is to maintain and increasing their standard of medical care with self care.*

Keywords: *the standard of medical care, diabetes mellitus, self care*



ICASH-A100

PATIENT SAFETY CULTURE IMPROVEMENT TO ENHANCE THE QUALITY OF HEALTHCARE IN HARAPAN BUNDA HOSPITAL JAKARTA

Hanifah Iskhia Dilla, Wachyu Sulistiadi

Faculty of Public Health, Universitas Indonesia

*Corresponding Author email: hanifahiskhiadilla@gmail.com

ABSTRACT

Background: *One of the achievements in running health care service institutions (hospitals) is providing strategic health care services to improve health status. Harapan Bunda Hospital is a private hospital located in East Jakarta. Whose vision is to become the preferred hospital by providing the best quality service. One of the implemented programs was reporting incidents in the unit to the QPS Committee. However, the incident that occurred in Harapan Bunda Hospital is still not widely reported regularly by officers in the unit. In addition, there are many discrepancies in service delivery in the form of safety. Therefore, it is necessary to measure the Safety Culture at Harapan Bunda Hospital.*

Methods: *This research used quantitative method with design cross sectional and used descriptive analysis to seek whole picture of all patient safety variable that had been done by Harapan Bunda Hospital. The population in this research is all staff of Harapan Bunda Hospital which around 708 staff member. Researcher used systematic random sampling with Slovin calculation formula and get 256 minimum sample needed. Instrument used is Patient Safety Culture survey refer to Agency for Healthcare Research and Quality (AHRQ).*

Results: *The result of mean measurement patient safety culture in Harapan Bunda Hospital is 72%, it means Harapan Bunda Hospital was moderate Patient Safety Culture. There are dimensions being focused to improving patient safety culture; the overall perception of patient safety, feedback and communication about errors, communication openness, frequency of incident reporting, staffing and non-punitive responses to errors.*

Conclusion: *Meanwhile, the other 6 dimensions of safety culture have been included in the good category of safety culture. Thus, Harapan Bunda Hospital is expected to always carry out routine monitoring and evaluation of the measurement of safety culture.*

Keywords: *Patient Safety Culture, Hospital, Quality of Healthcare*

ICASH-A101

REDUCED LENGTH OF STAY IN CHILDREN WITH DIARRHEA FOLLOWING IMPLEMENTATION OF CLINICAL PATHWAY

I Nyoman Gede Bayu Wiratama Suwedia^{*}, Atik Nurwahyuni

Hospital Administration Program, Faculty of Public Health, University of Indonesia

*Corresponding author's email: gede_bayu86@yahoo.com

ABSTRACT

Background: *Diarrhea or Acute Gastroenteritis (AGE) is a disease that common found in toddlers at emergency room. The complication of diarrhea such as dehydration may go undetected by parents will affect the treatment and length of stay in the hospital. Decreasing the length of stay in the hospital can be done by implementing clinical pathways. This study aims to examine the effect of implementing clinical pathways on length of stay in children with diarrhea.*

Methods: *This study was a systematic review that used PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis) guidelines. Data obtained from Electronic databases Proquest and Scopus that published between 2009-2019 and used English. By using keywords such as clinical pathway, gastroenteritis, and length of stay to find the relevant articles.*

Results: *The search found 610 studies, of which 6 studies were included in the systematic review. These studies conducted majority in USA and 1 study in Australia. Analysis of the studies found out that implemented clinical pathway can decrease length of stay 0.4 days (95% CI 0.04 to 0.7, $p < 0.01$). The decreased of length of stay can increased 2.5% (CI 0.25% to 4.38%) used of medical beds then the bed can be more effective and used by other patients.*

Conclusion: *Implementing clinical pathway in the treatment process of diarrhea towards children not only reduce the length of stay in hospital but also useful in providing patient diagnosed and reduce the bed use per day and year.*

Keywords: *Clinical Pathway, Diarrhea, Gastroenteritis, Pediatric*

ICASH-A102

FACTORS RELATED TO PENDING CLAIM IN INDONESIAN NATIONAL HEALTH INSURANCE (JKN): A SYSTEMATIC REVIEW

I Nyoman Gede Semarajana^{1*}, Prastuti Soewondo²

¹*School of Public Health Universitas Indonesia*

²*Health Policy and Administration, School of Public Health, Universitas Indonesia*

*Corresponding author's email: i.nyoman810@ui.ac.id

ABSTRACT

Background: *The number of Indonesian National Health Insurance (JKN) member is increasing every year. It is bringing impact to the hospital and Social Security Organizing Agency (BPJS) of health. The hospital finances will face problem if BPJS of health pending or giving a smaller number of claims paid to the hospital. The hospital will get problem with employee payroll, payment of specialist medical services, drugs availability, and maintenance of hospital facilities and medical equipment. This study aims to analyze factors related to pending BPJS claim in Indonesian National Health Insurance.*

Methods: *This study was a systematic review used PRISMA (Preferred Reporting Items for Systematic Reviews & Meta-Analyses) guidelines. Data obtained from journal database of Google Scholar that published between 2014-2019. The relevant studies must include factors related to pending claim in JKN.*

Results: *The search found out 217 studies, of which 84 studies used English and Indonesia language and only 5 studies that eligible for this study. The 5 studies showed factors related to pending claim in JKN were human resources, administration, regulation, facilities, external and evaluation factors. Human resources factor more likely appeared as cause for pending BPJS claim.*

Conclusion: *Factors related to pending claim in JKN were human resources, administration, regulation, facilities, external and evaluation factors. Human resources was the factor that most influenced for pending BPJS claim. The hospital must create strategies to overcome the factors that cause pending claim. The government should create a policy that can help BPJS of health overcome the deficit and protect the patients from facing decrease in the quality of hospital services.*

Keywords: *Pending claim, BPJS, National Health Insurance (JKN)*

ICASH-A103

FACTORS RELATED TO THE REDUCTION OF MEDICATION DISCREPANCIES AT TRANSITION OF CARE: A SYSTEMATIC REVIEW

Ida Bagus Nyoman Maharjana^{1*}, Adik Wibowo²

¹Hospital Administration and Management, Faculty of Public Health,
Universitas Indonesia, Indonesia

²Departement of Health Policy, Faculty of Public Health, University of Indonesia

*Corresponding author's email: ida.bagus86@ui.ac.id

ABSTRACT

Background: Adverse drug events (ADE) are a leading cause of injury and death within health care systems around the world. Up to 67% of patients' prescription medication histories recorded on admission to hospital have one or more errors and 30 – 80% of patients have a discrepancy between the medicines ordered in hospital and those they were taking at home. This study aims to systematically evaluate the available literature on the medication history records as a quality improvement in reducing medication discrepancies during the transition of care.

Methods: This study was used systematic review which performed according to the PRISMA method. The search included articles were obtained through databases: MEDLINE (1946), EMBASE (1966), CINAHL (1937) and PubMed (1946). Some of the key words or Medical Subject Heading (MeSH) terms used in the search were: "transition of care," "medication discrepancies," "medication errors," "patient safety," "medication history," "patient admission," "patient discharge," "patient transfer," and "hospital". Only studies published in English were included. Exploring literature was focused on the articles published from 2009 to 2019.

Results: Initially, a total of 162 potentially relevant articles were obtained. After screening title and reviewing abstracts, 14 full text were assessed for eligibility. Of the 10 articles met all inclusion criteria, 5 studies were randomized controlled trials, 2 quasi-experimental studies, 1 cohort study, and 2 qualitative studies with quantitative approaches. All studies found that involving best possible medication history in identifying medication discrepancies and communicating this information affected medication discrepancies in the medical record. **Conclusions:** The available literature such as lack of well-designed studies precluded us from concluding that no effect exists. Medication reconciliation supported by information technology was an important tool for minimizing the percentage of medications with unintentional discrepancies

Keywords: Adverse drug events, Medication discrepancies, Patient safety, Transition of care

ICASH-A104

EFFECTIVENESS OF CAESAREAN SECTION CLINICAL PATHWAY TOWARDS HOSPITAL LENGTH OF STAY: A SYSTEMATIC REVIEW

Maria Wahyu Daruki, Atik Nurwahyuni, Adang Bachtiar

Faculty of Public Health, University of Indonesia

*Corresponding author's email: dr_lea_dps@yahoo.com

ABSTRACT

Background: *Improving quality and efficiency in hospital services can be done by using Clinical Pathway (CP). CP can decrease the hospital length of stay and cost. In Indonesia, the increasing number of Caesarean Section (SC) affects the Length of Stay (LOS) in hospital. This study aims to examine the effectiveness of clinical pathway in caesarean section to length of stay in the hospital.*

Methods: *This study was a systematic review used PRISMA guidelines. Data obtained from Electronic journal databases Pubmed and ProQuest that published between 2014 until 2019 and used English language. By using keywords such as clinical pathway, childbirth labor, and length of stay to find the relevant journal.*

Results: *The search found out 4,937, studies from 2 journal databases. The articles that not suitable with the criteria inclusion must be excluded. Totally, 6 studies were analyzed in this study. 1 study explained the effect of increasing length of stay in the National Health Insurance, 2 studies mentioned that CP was not affected to the length of stay in hospital and 3 studies mentioned that CP was reduced the length of stay in hospital.*

Conclusion: *Clinical pathway in Caesarean section can reduce the length of stay in hospital. The hospital should implement the clinical pathway in caesarean section to increase the quality of hospital service and reduce the cost.*

Keywords: *Clinical Pathway, Childbirth Labor, Length of Stay, Caesarean Section*

ICASH-A105

THE LEADERSHIP ROLE FOR A SUCCESSFUL CHANGE MANAGEMENT: A SYSTEMATIC LITERATURE REVIEW

Meike Magnasofa^{1*}, Mardianti Najib²

^{1,2}*Magister of Hospital Administration, Public Health Faculty, University of Indonesia*

*Corresponding author's email: meike.magnasofa@ui.ac.id

ABSTRACT

Background: Globally there are significant concerns about the role of leadership in the disruptive era where change is inevitable. Organization needs a leader who can response those changes toward right direction to sustain. This review is to identify a more comprehensive relation between the leadership role and change management in the organization and its associated factors drawing upon systematic review of literatures published in the last ten years.

Methods: This study used systematic literature review based on the PRISMA (Preferred Reporting Items for Systematic Reviews & Meta-Analyses) protocol to identify all the published articles using relevant keywords. We searched in Emerald Insight (2010-2019), Science Direct (2010-2019), and EBSCOhost (2010-2019) to retrieve relevant articles published in English language only between January 2010 and April 2019. The review used key terms and phrases associated with Leadership, Change Management, and Disruptive. The abstracts were reviewed according to inclusion criteria and quality assessment.

Results: From 16,658 authors finally include 6 papers in this review. By the review, we noted that it is almost impossible to avoid change although resistance to change is real. There is a positive relation between leadership role and successful change management. The most significant subject and contributor for the successful change are the culture of change within the organization and the effective communication between leaders and their subordinates. The hindrances of change are lack of authority, uncertainly of role and lack of time and focus from the leaders. The findings of the study can be relevant for variety of settings as the study was conducted across cultures and sectors.

Conclusions: Leaders need to understand and spread the ambience with their employee of 4 points; the clarity about the needs of change in their organization, the key alignments, complementary development strategies and critical enablement. The recommendation for future research is to review more leadership studies on disruptive era in health care sector only in order to get deeper understanding in homogeneity setting. For policy makers, it is suggested to design policy that enforces leaders to improve their leadership skill and updating knowledge.

Keywords: Leadership Role, Change Management, Disruptive

ICASH-A106

THE CHILD'S DENTAL TREATMENT WITH SEDATION: REASONS, DENTAL TREATMENT NEEDS, MEDICAL CONDITION, AND HISTORY OF DENTAL ANXIETY AMONG CHILDREN IN YARSI DENTAL HOSPITAL

Mia Mariani*

Hospital Administration, Faculty of Public Health, University of Indonesia, Indonesia

*Corresponding author's email: marianidrg@gmail.com

ABSTRACT

Introduction: *The prevention and treatment of oral diseases in childhood and adolescence as the basis for good oral health throughout life is the aim of pediatric dentistry. The ability to care for the segment of the pediatric patients with fear and anxiety of dental treatment also with the medically compromised condition has become an important component of dental practice. Therefore, a need does exist for sedation services within the dentistry field. This study aimed to determine the reasons, dental treatment needs, medical condition, and history of dental anxiety in the analyzed group of pediatric patients.*

Methods: *This was a cross-sectional study using secondary data from medical records data conducted by YARSI Dental Hospital from March to April 2019. About 30 data were eligible for this analysis. The dependent variable in this study was dental treatment with sedation. Independent variables consisted of reasons, dental treatment needs, medical condition, and history of dental anxiety. The data were analyzed using univariate and bivariate analysis.*

Results: *In this study, there were 21 children (70%) doing dental treatment with sedation because of the need for dental treatment and intervention reason. There was statistically significant interaction between reason and dental treatment with sedation with $p\text{-value} = 0.023 < 0.05$. Another finding, children with a history of dental anxiety were more likely to use dental treatment with sedation (43.3%). With $p\text{-value} 0.935 > 0.05$ there was no statistically significant interaction between the history of dental anxiety with dental treatment with sedation. This study also did not reveal a statistically significant correlation between the following variables: dental treatment needs ($p=0.128$) as well as children's medical condition ($p=0,091$).*

Conclusions: *Most of the correspondents were non-medically compromised children with a history of dental anxiety. The reasons they came to YARSI dental hospital were because of the need for dental treatment and intervention reason. Conservation was the most needed dental treatment. Of the 4 (four) variables studied, the highest influence was the relationship between reason with dental treatment with sedation.*

Keywords: *pediatric, dental, sedation*

ICASH-A107

HOSPITAL EMPLOYEES' PERCEPTION OF MARKETING STRATEGY AT H. ABDUL MANAP GENERAL HOSPITAL IN JAMBI CITY

Milya Timeida*, Kurnia Sari

Faculty of Public Health, Universitas Indonesia

*Corresponding author's e-mail: milco_timeida@yahoo.com

ABSTRACT

Background: A hospital is required to be capable of maintaining its existence by developing effective marketing strategies to encounter the globalization challenges. The marketing strategy in the hospital is influential for its activities to provide appropriate services to the patient's needs. This study aims to determine the hospital employees' perception towards priority marketing strategy at H. Abdul Manap Regional Hospital.

Methods: This study was used the quantitative method with the descriptive analytic research. This research conducted in 602 people while the samples were 240 people, selected by accidental sampling technique. The primary data collection was conducted by employing a questionnaire as the survey method. The data analysis carried out was univariate analysis to obtain a percentage value description for each marketing strategy.

Results: The results identified that price was the top priority marketing strategy voted by 171 respondents (71.3%). On the second rank, Product was voted as the top marketing strategy by 141 people (58.8%). In the third position, Professionalism was voted by 132 people (55.0%) as the top priority for marketing strategy.

Conclusions: The research concludes that the hospital employees perceived that H. Abdul Manap General Hospital needed to prioritize price, product, and professionalism in developing its marketing strategies. It is advised that H. Abdul Manap General Hospital revise its price, develop new products based on patient needs, and provide professional human resources with good communication skills.

Keywords: Marketing Strategy, Perception, Hospital Employees

ICASH-A108

A DEMOGRAPHIC PICTURE ON MEDICAL CHECK UP PATIENTS AND ITS ASSOCIATION WITH PATIENT SATISFACTION LEVEL AT X HOSPITAL IN WEST JAKARTA FOR THE PERIOD OF OCTOBER 2018- FEBRUARY 2019

Prisca Gisella, Adang Bachtiar

Faculty of Public Health, University of Indonesia, Indonesia

*Corresponding author's email: prisca_gisella@yahoo.com

ABSTRACT

Background: Nowadays, the trend of non-communicable diseases is increasing around the world. The Sustainable Development Goals (SDG'S) sets the target to decrease number of mortality and morbidity from non-communicable diseases. One of the strategies to achieve the target is by doing medical check-up routine in the hospital. To do medical check-up is affecting by the patient satisfaction with the hospital services. The characteristic of patients can influence the patient to do medical check-up and will affect the satisfaction level with the hospital services. This study aims to examine the demographic characteristic of patients associated with patient's satisfaction level in hospital "X".

Methods: This study was a quantitative study used cross-sectional method. The sample in this study was 502 patients during October 2018 to February 2019. The dependent variable in this study was patient's satisfaction. The independent variables were age, gender, residential area, marital status, and patient status in hospital. The data was analysed in univariate and bivariate analysis used Chi-square.

Results: The demographic characteristic of patients in hospital "X" were majority female, had aged 50 years and older, married, lived near hospital "X", and actually old patient in the hospital. Bivariate analysis showed that age associated with patient's satisfaction level (p value = 0.000, CI 95%). Meanwhile the other demographic characteristics were not statistically significant with patient's satisfaction.

Conclusion: This study showed that majority of the patients who did medical check-up in the hospital "X" had aged 50 years and older, married, lived near hospital "X", and actually old patient in the hospital. The aged of the patient was statistically significant associated with patient's satisfaction. Therefore, the medical check-up service of hospital "X" should be improved based on existing market segment.

Keywords: Medical Check Up, demographic characteristic, satisfaction

ICASH-A109

HOW EFFECTIVE IS SIMULATION-BASED EDUCATION FOR IMPROVING THE NURSES' KNOWLEDGE ON PEDIATRIC IV INSERTION: A SYNTHESIS FROM AWAL BROS HOSPITAL GROUP IN INDONESIA

Retno Dewi Sulistyowati¹, Adang Bachtiar²

¹ Student of Master Program Study, Public Health Faculty, University of Indonesia, Jakarta

²Department of Health Policy Administration, Public Health Faculty, University of Indonesia, Depok

*Corresponding authors' e-mail: dsulisty@gmail.com

ABSTRACT

Background: Simulation-based nursing education has been growing rapidly and becomes one of the most popular teaching methods for improving patient safety and patient care. One of the difficult Nursing skills to achieve is IV insertion. Due to the high complaints in the number of IV insertion attempts in the paediatric patients, the Nursing Corporate of Awal Bros Hospital Group organized an educational program emphasizing the team training, clinical decision-making and communication skills. These were the first internal education sessions using live rabbits and mannequins. This study aimed to evaluate the attitude of the participants, the self-confidence level and their change in the knowledge on clinical performance in Paediatric IV Insertion after attending the educational program.

Methods: The training and education sessions were conducted at Awal Bros Hospitals in Bekasi Barat and Tangerang during March and April 2019. The participants included a total of 52 Nurses. Pre- and Post-tests consisting of 20 multiple choice questions were administered to the participant before and after the 3-day simulation-based training workshop in Bekasi Barat and after the 2-day simulation-based training workshop in Tangerang. The workshop also utilized rabbits for the participants to practice their hands-on skills.

Results: A total of 52 Nurses working in different Nursing units were enrolled. The mean pre-test and post-test scores were 43.81 and 87.52 respectively. In the Statistics Test table, the value of Asymp. Sig (2-tailed) was 0,000. Because the value of sig $0,000 < 0.05$ was according to the statistical tests we used, then there are significant differences between before training and after training.

Conclusions: Participants had positive attitude toward this new training program. They stated that this technique was more exciting and effective compared to the "traditional" techniques such as lecture, power point presentations or Q&A that they attended. Significant improvement of the knowledge on clinical performance in Nurses participating in these training and education session was observed after the participation in this simulation-based educational program. Many expressed their higher self-confidence in doing IV insertion to the future patients, especially babies and children. More simulation-based education using pre- and post-tests are recommended.

Keywords: Education, Nursing, IV Insertion

ICASH-A110

OUTCOME OF PATIENT SAFETY CULTURE USING THE HOSPITAL SURVEY ON PATIENT SAFETY CULTURE (HSOPSC) IN ASIA: A SYSTEMATIC REVIEW WITH META ANALYSIS

Rizky Anggraita Damayanti^{1*}, Adang Bachtiar²

¹Post Graduate Student of Department of Health Policy Administration, Public Health Faculty, University of Indonesia, Depok

²Department of Health Policy Administration, Public Health Faculty, University of Indonesia, Depok

Corresponding author's email: rizky.anggraita@ui.ac.id / rizkyanggraita@gmail.com

ABSTRACT

Background: Patient safety is a critical component of the quality of health care. In the process, it allows health services, especially hospitals, to well understanding aspects of patient safety. Hospital Survey on Patient Safety Culture (HSOPSC) was established to examines patient safety culture and the correlation between patient safety culture composite hospitals in Asia. This study aims to assess patient safety culture which using Hospital Survey on Patient Safety Culture (HSOPSC).

Methods: Systematic Review and meta-analysis method by using PRISMA-P 2015 were used in this study. We were collected through searching electronic literature from Elsevier, Science Direct, PubMed, and Google Scholar by using keywords "Hospitals Survey on Patient Safety Culture" and "HSOPSC Asia" published from January 2009 to January 2019. English language papers only are used as the inclusion criteria.

Results: Totally, 160 articles were found and after deleting duplicates document, 126 journals left. Finally, 16 eligible journals which fulfil the inclusion criteria were reviewed. The HSOPSC overall average percentage positive response rate for HSOPSC was 53.58. Of the 12 patient safety composites evaluated, the highest average score is teamwork within unit 74.29 ± 11.92 . The bivariate analysis used Spearman correlation for correlation between patient safety composite, the composite Frequency of Event Reported the weakest correlation with teamwork within unit ($r = 0.052$), and the composite teamwork across unit had the strongest correlation with teamwork within unit ($r = 0.761$).

Conclusion: Patient safety culture is crucial toward improving overall performance and quality of services in hospitals, especially teamwork within unit. Culture safety patient at the hospital must be applied in every hospital for quality improvement, especially for increasing patient safety culture.

Keywords: Patient Safety Culture Hospital, Patient Safety, HSOPSC Asia

ICASH-A111

THE IMPACT OF CLINICAL PATHWAY TO EFFECTIVENESS OF PATIENT CARE IN CURRENT MEDICAL PRACTICE IN HOSPITAL: A LITERATURE REVIEW

Rovels Agber Maywell Iroth^{1,*}, Anhari Achadi²

Hospital administration Department, Faculty of Public Health, University of Indonesia

*Corresponding author's email: rovels@gmail.com

ABSTRACT

Background: Clinical pathway is an effective way to maximize patient outcomes by organize and standardize care processes. Clinical pathway bring impact to the patient treatment and the quality of care in hospital. This study aims to examine the impact of clinical pathway in effectiveness of patient treatment in hospital.

Methods: This study was a literature review used PRISMA guidelines. Data obtained from electronic journal database ProQuest that published from January to December 2018 and used English or Indonesia language. The keywords of clinical pathway, care pathway, length of stay and mortality had been used to find relevant journal.

Results: The search of electronic journal database found 1,937 articles. Articles that were not suitable with inclusion criteria must be excluded. Totally, 6 articles were relevant for this study. The 6 articles were conducted in USA, Belgium, Australia, India, and China. The analyzed from these articles showed that clinical pathway gave positive impact to the length of stay and patient outcome in the hospital if the resources of the hospital were ready to implement clinical pathway.

Conclusion: Clinical pathway reduced the length of stay, improved the patient outcome, and reduced the mortality rate in hospital. To get the maximum benefit for implementing clinical pathway, the hospital must be prepared the environment and resources first before implementing clinical pathway.

Keywords: clinical pathway, care pathway, patient outcome, length of stay

ICASH-A112

PATIENT SATISFACTION ON NATIONAL HEALTH INSURANCE (JKN) SERVICES

Siti Lestarinigrum, Adang Bachtiar

Faculty of Public Health, University of Indonesia, Indonesia

*Corresponding author's email: siti.lestarinigrum@ui.ac.id

ABSTRACT

Background: *The National Health Insurance (JKN) is an insurance system that guarantee all of Indonesian people can access the health services. By registered as a JKN member, people can access and get treatment in health facilities that collaborate with JKN. Measuring the quality of JKN services can be done by measure the patient's satisfaction on JKN. This study aims to determine the factor of patient's satisfaction with JKN services.*

Methods: *This study was a systematic review used PRISMA guidelines. Data obtained from electronic database of Google Scholar that published in 2019 and used Indonesia language. The keywords that been used was satisfaction with JKN services to find the relevant articles.*

Results: *The search found 968 articles from Google Scholar database. Articles that did not fulfil the inclusion criteria must be excluded. Totally, 7 articles that contained patient satisfaction with JKN services in hospital had been chosen to analyzed in this study. These articles showed that patient satisfaction with JKN services influenced by some factors such as tangible, reliability, responsiveness, assurance, and empathy.*

Conclusion: *Factors influenced the patient's satisfaction with JKN services in hospital were tangible, reliability, responsiveness, assurance, and empathy. These factors influenced by the quality of the hospital services. To increase the patient's satisfaction, hospital must improve and develop facilities and quality of the hospital services.*

Keywords: *Patient satisfaction, National Health Insurance, JKN, health services*

ICASH-A113

THE EFFECT OF ANTIEMETIC FOR GALACTOGOGUE

Sukma Marthia Rahani*, Amal Chalik Sjaaf

Faculty of Public Health, University of Indonesia

Corresponding author's email: sukmaerajat123@gmail.com

ABSTRACT

Background: Breastmilk provides nutrition that newborn and baby need during early stage of their lives. Breastmilk production can be increased by giving the mother oxytocin or prolactin enhancement that called galactogogue during breastfeeding. Giving galactogogue to mother bring side effect such as nausea, vomit, and insomnia. The example of galactogogue are domperidone and metoclopramide. Domperidone and metoclopramide not only useful to increase the breastmilk production as galactogogue but also can be used as antiemetic to reduce the effect in the galactogogue. This study aims to examine the effect of antiemetic for galactogogue during breastfeeding.

Methods: This study was a systematic review that used PRISMA guidelines. Data obtained from Electronic databases ProQuest and Google Scholar that published between 2015 and 2018. By using keywords such as effect, antiemetic, galactogogue to find the relevant journal.

Results: The search found 58 studies, of which 7 studies were relevant to analyze in this study. Majority of these studies used Randomized Control Trial (RCT) and 1 study used case study. Analysis of the studies found out that domperidone and metoclopramide can be used as antiemetic for galactogogue. Domperidone was not enter the blood circulation and did not interfere the breastmilk production

Conclusion: Domperidone and metoclopramide can be used as antiemetic for mother who need galactogogue treatment. Domperidone reduced the toxicity to mother and baby. The health providers should recommend domperidone and metoclopramide as galactogogue to mother who want to increase the breast milk production.

Keywords: Breast milk, galactogogue, antiemetic

ICASH-A114

PROVIDING ADEQUATE INFORMATION FOR OUTPATIENTS IN RSUPN DR. CIPTO MANGUNKUSUMO JAKARTA NOVEMBER 2018 - FEBRUARY 2019

Tantri Puspa Ditya, Adang Bachtiar

Faculty of Public Health, University of Indonesia

*Corresponding author's email: puspa.tantri@gmail.com

ABSTRACT

Background: Long waiting time in medical services can cause by excess patient capacity, insufficient hospital staff and resources, and long registration process. This problem common happens in hospital in Indonesia, including RSUPN Dr. Cipto Mangunkusumo, Jakarta. In 2017, the average time for waiting to get medical services in RSUPN Dr. Cipto Mangunkusumo was more than 60 minutes. However, the standard of waiting time is less than or equal to 60 minutes. Long waiting time can affect to the patient services and satisfaction. This study aims to examine the effectiveness of providing information at each service points with waiting time at RSUPN Dr. Cipto Mangunkusumo.

Methods: This study was a quantitative study with cross-sectional design. Quick Win/ Electronic Health Record recapitulation was used to measure the waiting time to get medical services from registration until met the doctor for each patient. The sample was 1130 patients. The sample in this study was patient who had been recorded in electronic medical record during July 2018 to February 2019. The data analyzed in univariate and bivariate analysis used Chi-square.

Results: There was association between providing information at each service points with patient waiting time (95% CI, $p=0.042$). After implemented the information of how long-time services needed at each service points, the average time for patient waited has decreased 3 minutes from 120.5 minutes to 117.5 minutes.

Conclusion: Providing information at each service points associated with decreasing waiting time for patient. The hospital should increase the performance of health providers and give the appreciation to the polyclinic or department that can achieve the standard of waiting time. Hopefully, giving a honor to the health providers can motivating them to give better health services to the patient and reduce the waiting time.

Keywords: Patient services, waiting time, information on patient service time

ICASH-A115

THE VARIATION OF CAESARIAN SECTION COSTS IN INDONESIAN HOSPITALS: A NARRATIVE REVIEW

Tetriyadi^{1,2,*}, Atik Nurwahyuni¹

¹ Hospital Administration Postgraduate Programme, Faculty of Public Health, Universitas Indonesia

² Service Department of Kolonel Abundjani Regional Hospital

*Corresponding author's email: dr.tetriadi@gmail.com, atikn.akk@gmail.com

ABSTRACT

Background: In providing services, hospital, as one of the health care providers, must be able to regulate the number of costs obtained in accordance with the proportion/variation. The costs incurred by hospitals in providing complete personal health services consist of various cost components, including service fees, pharmacy costs, accommodation costs, action costs, investigation fees, and administrative costs. The cost calculation is one of the strategic steps that must be taken in marketing because it will be used for pricing. Caesarean Section (CS) surgery is one of the largest services and costs a lot in the hospital; careful planning is needed. This study aims to look at the variation in the cost components of CS services in Indonesia based on hospital level, hospital ownership.

Methods: This study is a quantitative research Narrative Review by analyzing twenty hospitals in six provinces representing Indonesia from the thesis found in lib.ui database. The analysis in this study is the amount of proportion/variation in the cost components with the type of hospital and hospital ownership. Meanwhile, the criteria for selected hospitals are government-owned and private hospitals with types A, B, C and D. To be able to compare these data and avoid inflation differences, it is necessary to do data collection or valuation presentation (VP). The chosen cases were the usual CS without emergency and complication

Results: There was a wide variation in CS service cost components, namely medical services (25% - 90%), accommodation (2% -39%), investigations (1% -36%) and drugs and BHP (2% -50%) both in government and private hospitals. Government-owned type B hospitals and government and private type C costs for medical services are greater than 44%.

Conclusion: There are variations in the cost components of CS services at hospital types B and C. There is a need for government efforts to make regulations regarding the magnitude of the ideal cost component as a reference for all hospitals in Indonesia.

Keywords: Caesarian section costs, Hospital, Indonesia.

ICASH-A116

THE USE OF SOCIAL MEDIA AS HOSPITAL MARKETING TOOL

Umi Fikria Arif^{1,2,*}, Ede Surya Darmawan¹

¹ Faculty of Public Health, University of Indonesia, Depok, Indonesia

² Baiturrahim Hospital, Jambi, Indonesia

*Corresponding author's email: umi.fikria.arif@gmail.com

ABSTRACT

Background: The means of communication develop over time. Nowadays the internet has become the best means of communication including in modern hospital marketing. Social media connects individuals, businesses and organizations to interact and build relationships and communities online. This study aims to determine if social media is an effective tool for hospital marketing.

Methods: This study was conducted in a systematic review by searching for articles and journals related to social media and hospital marketing. Literature search through the online database from University of Indonesia online library such as Scopus, Jstor, Ebsco, Proquest and Wiley on January 3th, 2019. The criteria of references are the use of social media in hospitals published within the year of 2009 to 2018 and can be accessed openly.

Results: The search returned 21155 articles, of which only 4 studies were included in the systematic review. The results of the journals investigation showed that 51% - 99.41% of hospitals used social media. The average number of platforms used by a hospital in the sample was 3.3. About 71.8% updated their pages in the past 30 days, and 89.2% provided online interactions. There are significant correlations for hospitals' reputation score and total points with the number of social media followers.

Conclusions: Many hospitals now use multiple social media platforms. The use of social media is affecting hospital's reputation. And because there is a high level of trust and sharing in social media communities, social media can be used as an effective tool for hospital marketing. To which extent the social media is still effective for marketing needs future studies regarding each country health regulations.

Keywords : Social media, Hospital, Marketing, Communications.

ICASH-A117

THE INFLUENCE OF SMARTPHONE APPLICATION ON THE HYGIENE BEHAVIOR OF EXTERNAL REPRODUCTIVE ORGAN OF FEMALE STUDENTS IN 1st SEYEGAN SLEMAN JUNIOR HIGH SCHOOL

Suherni, Anita Rahmawati*, Ilma Aptaningrum*

Midwifery Department, Health Polytechnic of Yogyakarta (Poltekkes Kemenkes Yogyakarta), Indonesia

*Corresponding author's email: anitarahmawati1108@gmail.com (AR), ilmaaptan@gmail.com (IA)

ABSTRACT

Introduction: Adolescents is a period of the human development cycle, which is a transition between childhood and adulthood. In this transition many things must be considered one of them is the hygiene of reproductive organ. Hygiene of the reproductive organs, especially the external parts, is very closely related to prevent the reproductive organs from disease. Today is a digital era, most peoples activities used a smartphone including in finding and obtaining information. The use of smartphones at this time can affect the behavior of everyone, especially teenagers. One of them is the hygiene behavior of the reproductive organs. This research is to know the influence of smartphone application on the hygiene behavior of external reproductive organ female students of Seyegan Sleman Junior High School.

Methods: This research used an experimental method with questionnaire-based survey (pre-test and post-test) was conducted in 90 teenage girls

Results: The influence of source information variables, parent's work and parent's income on behavior were significant ($p < 0.05$). Clinically / practically for respondents exposed to electronic information sources, their behavior is higher at 3.57 compared to non-electronic ones. As for the status of parents who work privately, their behavior is higher by 2.69 compared to those of Civil Servant For the income of parents \geq average minimum wage, the level of behavior is higher by 5.34 compared to the income of their parents $<$ average minimum wage. The influence of the information source variable, the work of parents and parent'S income towards behavior is 15 percent.

Conclusions: There is a significant difference between the pre and post effects of smartphone applications on the behavior and knowledge of teenage girl reproductive organs hygiene Seyegan Sleman I Junior High School

Keywords : Adolescents, Hygiene of reproductive organ, Reproductive organ

ICASH-A119

NURSING IMPLEMENTATION IN CONTROL LONG COGNITIVE AND PSYCHOMOTOR CAPABILITIES OF HALLUCINATORY PATIENTS IN KALAWA ATEI MENTAL HOSPITAL OF PALANGKA RAYA

Maria Magdalena Purba*

*Health Poytechnic of Palangka Raya (Poltekkes Kemenkes Palangka Raya),
Central Kalimantan, Indonesia*

*Corresponding author's email: mariapurba45@gmail.com

ABSTRACT

Background: *Hallucination is one of the symptoms of mental disorders in individuals that are characterized by sensory changes in perception, feeling a false sensory in the form of sound, vision, taste, touch and smell that is felt by the patient, but actually nothing. Hallucinatory can affect to the patient behaviors and sometime can endanger others. By implementing nursing of cognitive abilities and psychomotor abilities be expected to control hallucinatory among patients. This study aims to determine the implementation of cognitive abilities and psychomotor abilities in controlling hallucinatory in Atei Kalawa Menta Hospital, Palangkaraya.*

Methods: *This study was a quantitative study. There were 32 respondents that recruited in this study used purposive sampling methods. The inclusion criteria for this study were patients in Atei Kalawa Mental Hospital who had aged 20-56 and dignosed for schizophrenia. The univariate analysis was used to describe the descriptive statistic.*

Results: *Implementing cognitive and psychomotor abilities towards patients with hallucinatory can decrease the hallucinatory among 17 patients (53.1%) and improve the ability from 19 patients (59.4%) to communicate with others, to do schedule activities, and to follow the medication.*

Conclusion: *By implementing cognitive and psychomotor towards patients who had hallucinatory can bring positive impact in their treatment. It is recommended for health providers to implementing cognitive and psychomotor towards patients who faced hallucinatory.*

Keywords: *Hallucinations, cognitive abilities, psychomotor abilities*

ICASH-A122

NEEDS ASSESSMENT OF LEADERSHIP TRAINING & DEVELOPMENT PROGRAM: A CASE STUDY AT INDONESIA'S NATIONAL AGENCY OF POPULATION AND FAMILY PLANNING (BKKBN)

Masrinto Pongrambu^{*}, Patreeya Kitcharoen

Faculty of Social Sciences and Humanities, Mahidol University, Thailand

Corresponding author's e-mail: pongrambu@gmail.com

ABSTRACT

Background: Leadership training and development (*pendidikan dan pelatihan kepemimpinan or diklat kepemimpinan, mostly known its shorten Diklatpim*) has become one of the most important training for Indonesia's Civil Servants (Pegawai Negeri Sipil, or PNS), not excluded civil servants of Indonesia's National Population and Family Planning Agency (Badan Kependudukan dan Keluarga Berencana Nasional, abbreviated BKKBN). This study aims to investigate the current and expected situation or condition of leadership training of BKKBN.

Methods: This is a need assessment study that used mix methods to collect data from respondents. However, this issue shows the quantitative data only. The data samples were collected from 146 alumni of Diklatpim (230 alumni from year 20015-2018). The data were analysed by descriptive statistics and Priority Needs Index (PNI).

Results: In BKKBN leadership and development training, Self-mastery has current mean score 4.09; expected mean score 4.56; PNI modified score 0.114. Diagnostic-reading has current mean score 3.97; expected mean score 4.51; PNI modified score 0.136. Innovation has current mean score 3.82; expected mean score 4.37; PNI modified score 0.144. Effective-team has current mean score 4.11; expected mean score 4.60; PNI modified score 0.119. Change-project has current mean score 4.21; expected mean score 4.59; PNI modified score 0.092.

Conclusions: Innovation agenda has the lowest mean score, while the Change project has the highest mean score. Consequently, Innovation agenda has the highest rank in term of Priority Needs Index (PNI), while the Change project has the lowest rank. However, the ranks have no meaning that Change project is less important to be improved in the future.

Keyword: needs assessment, leadership training, leadership development, Diklatpim, family planning, health management, BKKBN

ICASH-A123

LEADERSHIP SKILL AND MANAGEMENT PROCESS IN CENTER OF INFORMATION AND COUNSELING (CIC) AT UPPER SECONDARY SCHOOLS IN SOUTH JAKARTA CITY, INDONESIA

Utut Septi Asrianti*, Arisara Leksansern

Faculty of Social Sciences and Humanities, Mahidol University, Thailand

Corresponding author's e-mail: utut.septi@gmail.com

ABSTRACT

Background: Indonesian adolescent problems have increased from year to year based on data from the Indonesia Health Demographic Survey (IDHS). Center of Information and Counseling (CIC) is a non-formal education form which is established with particular purposes in order to help youth generation in the health and social sector. The high number of CIC does not guarantee the quality and the decreasing of adolescent health problems. This study is to examine the ability of leader and management implementation in CIC, to study problems that occurred in CIC, and find the best alternative solution to reduce these problems.

Methods: The research used quantitative and qualitative method approach. Exploratory research design is used to analyze leadership skill and management in the Center of Information and Counseling. The number of population in this study is 117 students who are CIC members from 9 upper secondary schools. For the qualitative method, 13 students who are chairman and peer educator are selected to join in a focus group discussion (FGD).

Results: Based on Pearson product-moment, there was a correlation between leadership skill and management process in significant level at 0.01 ($r=.552$). Technical skill and controlling function have the highest correlation compared with others. This finding is in line with the result of the focus group discussion. Some indicators have been founded that caused as obstacles. Some alternative solutions are given to overcome the problems and to increase the performance within CIC.

Conclusion: Cooperation among all stakeholders both internal and external are needed in supporting dan developing the existence of the Center of Information and Counseling for youth generation.

Keywords: non-formal education, adolescent reproductive health, youth leadership skill, management

ICASH-A124

A REVIEW OF THE BALANCED SCORECARD IMPLEMENTATION IN HEALTH SECTOR ORGANIZATION

Silvia Tarigan^{*}, Adang Bachtiar

Faculty of Public Health, University of Indonesia, Jakarta, Indonesia.

Corresponding author's e-mail: Silvia.tarigan78@gmail.com

ABSTRACT

Background: Several studies reported that performance measurement using balanced scorecard is better than using traditional performance measurements. Balanced scorecard approach has been used in many health service sectors, both profit and non-profit, including hospitals, health service system, center for mental health, pharmacy services and health insurance company. This study aims to review the balanced scorecard implementation in health sector organization of the published literature from 2012 to 2019.

Methods: This study was used literature review method by collecting data of the Balanced Scorecard in the health care sector and draws on the 6 years of published literature to January 2019. The literature were found from a search on Google Scholar as well as Thomson Reuters Web of Knowledge. The search terms were used "Balanced Scorecard", "Health Balanced Scorecard" and "BSC" on English language only. The papers were classified by topics, research settings and research methods and data analysis techniques.

Results: From 1465 papers were examined, 12 pieces of literature met inclusion criteria. From 12 pieces of literature have been reviewed, were used case study research method, eleven papers with qualitative research and one paper using the Delphi method. Based on 12 papers found that The balanced scorecard in health sector organization has been implemented in ICO, primary health care, hematology department, hospitals, home care nursing, health facilities, health systems, nutritional therapy company and clinical nutrition. Moreover, the Balanced Scorecard approach was used for health service budgeting, developing key performance indicators, improving hospital performance, assessing the baseline status, as an indicator in conducting evaluations.

Conclusion: This study found that several studies consistently proved that Balanced scorecard is essential for performance and evaluation measurement in the health sector.

Keywords : Balanced Scorecard, , performance measurement, health care, health services

ICASH-A125

DETERMINANT OF CHRONIC ENERGY MALNUTRITION OF PREGNANT WOMEN AT KARANG BANDAR LAMPUNG HEALTH CENTER

Mutiara Ayu Muthiatulsalimah* , Sri Rahayu

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

Corresponding author's email: mutiattul@gmail.com (MAM), yayoek.1974@gmail.com

ABSTRACT

Background: *The most common nutritional problem experienced by pregnant women is Chronic Energy Deficiency (CED), which may be caused by nutritional intake consumed, socio-economic and history of disease / infection before becoming pregnant. But the cause of CED is not only a problem of lack of food but also due to the influence of lifestyle, workload and nutritional status of the mother during pregnancy. This study aims to determine the relationship between lifestyle during pregnancy, workload during pregnancy, nutritional status during pregnancy with Genesis CED in Pregnant Women.*

Methodology: *Quantitative research method with cross sectional design. The population of this study were all pregnant women who checked their pregnancy at the Public Health Center Karang City Bandar Lampung. Sampling technique using total population sampling is as much as 40 people. Data was collected through primary (questionnaire) and secondary (KIA book) data collection. Data analysis was performed using chi-square test.*

Results: *Results of this study showed that there was no significant relationship between lifestyle with the CED incidence in pregnant women. Meanwhile, the results showed that workload and nutrition were significantly associated with the CED incidence in pregnant women.*

Conclusion: *This study recommends that there is a need for coordination between puskesmas and city health offices to provide supplementary food for pregnant woman and provide education to woman about the importance of nutrition during pregnancy before marriage, such as counseling in order to prevent CED occurrence during pregnancy.*

Keywords: *Chronic Energy Deficiency, lifestyle, workload, pregnancy*

ICASH-A126

IMPROVING PATIENT SAFETY AND HOSPITAL SERVICE QUALITY THROUGH ELECTRONIC MEDICAL RECORD: A SYSTEMATIC REVIEW

Muhammad Firdaus*, Amal Chalik Sjaaf

Hospital Administration Program, Faculty of Public Health, Universitas Indonesia

*Corresponding authors' email: Firdaus.juve@gmail.com

ABSTRACT

Background: Examines properly implementation of Electronic Medical Records (EMR) which associated with workflows, policies and health services in enhancing patient safety. The electronic medical records have benefit to the patients due to the efficiency in the healthcare process. Therefore, the aim of this study was to examine the literatures on patients safety reporting based on electronic system review and assess the implementation.

Methods: Systematic review with Prisma at the literature published between 2010 – 2019 using three large database: Proquest, Oxford Academic Journals, and Scopus. The eligible articles in this review should show an effect of patient' safety, and product quality in hospital in correlation on using EMR. It must include some effect on medication error, prescribing error, error in the use of EMR that potentially endanger patient safety.

Results:The most important function of EMR implementation is to improve patient safety in hospital and to reduce the cost. EMR reduce excess cost of Hospital Acquired Condition (HAC) by 16%, reduce death due to HAC by 34%. Doctor and nurses believe that the quality of patient data would be better by using EMR as their daily routines.

Conclusion: EMR can improve patient safety due to some skills in technology. Thus, it would not harm to the patients safety. However, the implementation of EMR requires the human skill resources in using technologies, computer and programs.

Keywords : *electronic medical record, hospital, patient safety, electronic health record*

ICASH-A127

ANALYSIS OF MARKETING STRATEGIES ON MEDICAL TOURISM PROGRAMS IN DEVELOPING COUNTRIES HOSPITALS IN ASIA

Ni Putu Indra Dewi^{*1}, Dumilah Ayuningtyas²,

¹*Hospital Administration Studies, Faculty of Public Health, Universitas Indonesia*

²*Faculty of Public Health, Universitas Indonesia*

*Corresponding authors's email: dr.dewi180690@gmail.com

ABSTRACT

Background: Recently medical tourism is a new form of niche tourism market, which has grown rapidly. The term of Medical Tourism describes tourists who travel to foreign countries to obtain health services and facilities such as medical, dental, surgical care, and so forth. It is necessary to hold a marketing strategy that is able to increase tourist interest in carrying out medical tourism activities in efforts to develop medical tourism. Therefore, the aim of this study was to analyze marketing strategies for medical tourism programs in hospitals.

Methods: A systematic review through marketing strategy journals of medical tourism was conducted. Research articles accessed from the internet through databases namely: EBSCO, Emerald, Science direct, Neliti, and Research gate with the keywords medical tourism and medical tourism marketing strategy. The literature analysis from 2 journals with mix methods design, a journal with descriptive qualitative design, a journal with descriptive study design, a journal with SWOT analysis design, a journal with desk research methods design, and 2 journals with data analysis design.

Results: The 11 articles that are considered to be in accordance with the objectives of the study. From 11 articles, then screening again based on feasibility according to inclusion and exclusion criteria obtained 8 articles for further review. This systematic review shows that the marketing concepts of segmentation, targeting, and positioning could compete competitively with other hospitals. The marketing strategy of a health service was able to increase the interest of tourists in conducting medical tourism activities in a country. Marketing efforts carried out by hospitals focus on domestic and foreign tourists.

Conclusion: The existence of a marketing strategy can increase competitiveness between hospitals and increase the interest of domestic and foreign tourists to carry out medical tourism activities competitively.

Keywords: Marketing strategy, segmentation, targeting, positioning and medical tourism

ICASH-A128

UNIVERSAL PRECAUTION OF SECTIO CAESARIA IN SURGICAL ROOM

Anindita Santoso¹, Prastuti Soewondo²

¹Student of hospital administration program public health faculty, University of Indonesia.

²Lecturer of hospital administration program public health faculty, University of Indonesia.

*Corresponding author's e-mail: anindita.santoso@ui.ac.id

ABSTRACT

Background: Nosocomial infection is the presence of an infection seen in patients while in the hospital or while in other health facilities, currently this is known as Health-care Associated Infections (HAI). One of the useful strategies in controlling HAI is to improve the ability of health workers in the universal precautions method. To succeed in this strategy, we need a material briefing on universal precautions so that good knowledge is obtained between healthcare staff. Therefore it is necessary to know the relationship between knowledge about universal precautions with universal precautions attitude and safety skills on healthcare staff.

Methods: Article research was limited to articles from internet databases, such as ASMR, Elsevier Journal, IJCMPPH, Sage Journals with the keywords universal precaution, knowledge, safety skills, attitude, and healthcare staff. Inclusion criteria, such as English articles and published from 2008-2018, were collected and reviewed. The searching process obtained 6 articles that met requirements for inclusion and exclusion criteria.

Results: There were two articles that found a positive correlation between knowledge of universal precautions and safety skills or attitude, but the others showed otherwise. It shows inconsistent findings in all articles.

Conclusions: Knowledge of universal precaution is not the only factor that influences the safety skills or attitude of healthcare staff. It might be other factors that influence safety skill or attitude besides knowledge of universal precaution.

Keywords: Knowledge, Universal precaution, Safety Skills, Attitude, Health-care staff

ICASH-A130

EFFECT OF ULTRASOUND TECHNOLOGY ON WASTEWATER TREATMENT EMPHASIZING ON HEALTH ISSUE

Nasser Mehrdadi* , Farshad Golbabaee Kootenaee

Faculty of Environment, College of Engineering, University of Tehran, Tehran, Iran

*Corresponding author's e-mail: mehrdadi@ut.ac.ir

ABSTRACT

Background: Wastewater and sludge have huge pathogenic substances. So far, various physical and chemical processes have been used for disinfection, including chlorination, ozone and ultraviolet radiation. The use of this type of disinfectants is currently decreasing due to the hazards that they pose such as byproducts of disinfection, including carcinogenic Trihalomethanes. Nowadays, researchers have begun to use other processes that create less risks such as ultrasound technology. Ultrasound waves by breaking the cell wall causes reducing pathogenic populations and eliminating the risk of disinfection byproducts and are one of the newest methods for disinfection in water and wastewater treatment plants. For physical, chemical and biological effects of ultrasound waves on plants, ultrasound radiation results in the rotational movement of the protoplasm in individual cells and affects the growth rate of plants. In humans, the hypothesis is that exposure to ultrasound causes subsequent electrolytic balance changes in the nerve tissue and increases blood glucose levels. Ultrasound waves cause bacterial colony damage and thinning of the cell wall and the release of the cytoplasmic membrane. Mechanical effects of ultrasound waves can be used for water and wastewater disinfection.

Methods: This research is a descriptive-analytic study that was carried out in a batch experiment. The goal of this research is to investigate the effect of ultrasonic waves on disinfection in South Tehran wastewater treatment plant.

Results: The results showed that by increasing the time and density of the ultrasound, the rate of removal of *E.coli* increased. Also, the optimal sonification time was 30 minutes and the optimal ultrasound density was 2.5 watts per milliliter at a frequency of 20 kHz. *E.coli* removal rate in these conditions was more than 99%.

Conclusion: According to the results of this study, the use of ultrasound waves has a significant effect on the elimination capacity of *Escherichia coli* and can be used as an appropriate alternative for stabilization and disinfection in wastewater treatment plants.

Keywords: Ultrasound, Health, Wastewater, Treatment, Cavitation

ICASH-A131

FACTORS INFLUENCING DELIVERY BY SKILLED BIRTH ATTENDANTS AND POSTNATAL HEALTH CHECK AMONG MOTHER IN HLAING-THARYAR TOWNSHIP, MYANMAR

Aye Thi Khaing^{1,*}, Sirinya Phulkerd¹, Amara Soonthorndhada¹, Ayesandar Mon², Pojjana Hunchangsith¹

¹*Institute for Population and Social Research, Mahidol University, Thailand*

²*Department of Biostatistics and Medical Demography, University of Public Health, Myanmar*

*Corresponding authors' email: dr.ayethikhaing87@gmail.com

ABSTRACT

Introduction: *Complications during pregnancy and childbirth are the leading cause of death among women of reproductive age in Myanmar. It is generally believed by women in developing countries that pregnancy is a natural phenomenon and a part of women's reproductive functions. Problems or complications during pregnancy are also considered by such women as being natural to pregnancy. Low coverage of institutional deliveries, giving deliveries at homes without skilled provider and delays to reach to the health facilities are leading towards the vast majority of maternal deaths in Myanmar.*

Methods: *The purpose of this study is to identify percentage of skilled birth attendant's utilization among ever-married women (15-49 years) in Hlaing-Tharyar Township, Yangon, Myanmar. A quantitative cross-sectional survey was conducted. A total of 300 ever-married women who had delivered at least one child were selected by simple random sampling and face to face interviews were performed to them by using a pre-tested structured questionnaire. The structured questionnaire including socio-demographic background, history of last pregnancy, accessibility of health services, women's autonomy and male involvement during pregnancy.*

Results: *The study found that 65 percent of the sample used skilled birth attendants (SBAs) at delivery and the association between mother's education, place of residence, parity, number of antenatal care visits, women's autonomy and male involvement were significantly related with using skilled birth attendant at delivery and postnatal health check. About one-third (35%) were received care from non-SBAs during delivery and the postpartum period in that township. Accessibility to health services and availability of health care personnel were not significantly associated with the use of skilled birth attendants in the delivery and postpartum of the last child.*

Conclusions: *Findings from this study highlighted that the majority of SBAs were providing reproductive healthcare services with a certain level of quality within the limited resource setting at the study area. There was a need to increase health education activities by SBAs for the pregnant and lactating mothers especially for utilization of maternal health care services. Awareness raising activities on the contraceptive method used should also be enhanced for all lactating women.*

Keywords: *Skilled Birth Attendants, Postnatal health check mothers, Hlaing-Tharyar, Myanmar*

ICASH-A132

PERCEPTION OF PICTORIAL HEALTH WARNING ON CIGARETTE PACKS, SMOKING BEHAVIOUR AND WANT TO QUIT SMOKING AMONG STUDENTS UNDERGRADUATE OF STATE ISLAMIC UNIVERSITY OF NORTH SUMATERA, INDONESIA

Fauziah Nasution, Azhari Akmal Tarigan, Putra Apriadi Siregar*, Watni Marpaung

Sate islamic university of north sumatra

*Corresponding author's E-mail: siregar.putra56@gmail.com

ABSTRACT

Background: Pictorial health warning on cigarette packs has been implemented since 2014, but smokers in Indonesia increase every years. Pictorial health warning on cigarette packs must be continuously evaluated regarding its effectiveness in reducing smoking behavior in Indonesia. Regulated about Regulations of pictorial health warning on cigarettes packs are expected to make smokers to quit smoking and regulations that have been in effect since 2014 should have been evaluated to see pictorial health warning on cigarettes packs that can change the behavior of smokers or prospective smokers in adolescents. This study aims to describe perceptions of pictorial health warning on cigarette packs and smoking behavior and intention to quits smoking of undergraduate student of state Islamic University of North Sumatra.

Methodology: This research was conducted to students of the Islamic University of North Sumatra as many as 215 students. The study was conducted in March 2019 using a structured questionnaire that had been prepared. The data in this study will be presented in the form of frequency distributions and then the results are presented in the table.

Results: The results of this study indicate that the respondents felt not fear with pictorial health warning on cigarette packs as many as 165 people (76.7%). For the smoking behavior of students it was found that as many as 147 people (68.4%) stated that they had not smoking and respondents who stated smokers as many as 68 people (31.6%), wanted to stop smoking after seeing picture health warning on cigarette packaging as many as 28 people (41.2%). Respondents who said they would continue smoking even though they had seen pictorial health warning on cigarette packs as many as 40 people (58.8%).

Conclusion: The majority of students undergraduates of the North Sumatra State Islamic University (UIN SU) were not afraid when they saw pictorial health warning on cigarette packs and students undergraduates have smoking behaviour. Those who smoke said they wanted to stop smoking after seeing pictorial health warning on cigarette packs especially when looking at ppictorial health warning on cigarette packs related to smoking resulting in lung cancer.

Keywords: Perception, Picture Health Warning, Smoking Behavior, Students

ICASH-B003

MYDIETDAY: A WEB-BASED ALTERNATIVE SOLUTION FOR EFFECTIVE DIET

Indri Hafida^{1,*}, Linda Arum Sari¹, Mohammad Afan Setyadi², Muhammad Zaini Rahman², Alfredo Juan Pratama²

¹ Nutrition Science Department, Medical Faculty, Brawijaya University, Jl. Veteran, Malang - 65145

² Faculty of Computer Science, Brawijaya University, Jl. Veteran, Malang - 65145

*Corresponding authors' email: indrindryyy@gmail.com

ABSTRACT

Background: Obesity is a body that has excess body weight with body mass index 25-29.9 and >30. According to WHO, in 2016 over 78% people around the world over the age of 17 were obesity. This is because obesity are not only about body weight, but also indicates a high risk of degenerative disease such as heart disease, dyslipdemia, and stroke. Both of these nutritional problems can occur in all ages, including pregnant and lactating women. The mother's diet and infant malnutrition take the biggest responsibility for poor nutrition in infants. Setting the right diet program for pregnant women can support physical health, fetal mental development, and reduce pregnancy complications such as gestational diabetes and preeclampsia. Mydietday is a diet application that can be easily accessed via smartphone.

Methods: Mydietday designed generally to calculate energy requirements, nutritional status, ideal body weight, advise on proper physical activity and arrange menus to reduce, increase, maintain, or control body weight and nutrition of pregnant and lactating women, storing and re-accessing a history of diet programs that have been made before and consult with registered dietitians and midwives via live chat. In addition, this application also develops as a business plan where customers can order food according to their own menu prepared at the catering provided.

Results: Mydietday's goal is to make 3rd sustainable development goals "Good health & wellbeing" successful by helping to develop a diet program to reduce prevalence of diseases worldwide. The method used is the method of observation, literature study, and interviews. This program was developed using the PHP programming language and MySQL database. The design is built using HTML and CSS.

Conclusion: Expected results are the prevalence of problem of weight loss decreases and the culture of healthy lifestyle increases so that it can reduce the mortality rate due to degenerative diseases.

Keywords: Application, Pregnancy, Lactating, Obesity, Nutrition, Diet, Business plan

ICASH-B005

PRENATAL YOGA TO REDUCE PREGNANT WOMEN STRESS: A LITERATUR REVIEW

Annisa Septy Nurcahyani*, Diyah Fatmasari

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: nannisasepty_mid@yahoo.co.id

ABSTRACT

Background: *The changes related to bio-psycho-social can result stress in pregnant women. The stress has proven as one of the causes of complications during labour. It also affects the baby, depression during the pregnancy, and high blood pressure after parturition period. Yoga is one of the alternative therapy needed by pregnant women during pregnancy. Prenatal yoga consists of three parts, including relaxation, adjusting posture, and breathing. The aim of this paper is to analyze the effect of prenatal yoga on a pregnant woman.*

Methods: *This article was collected through Google Scholar and PubMed searches from January 2014 to February 2019. The keywords used were based on the PICO-S (Population Intervention Compare Outcome-Study design), by using keywords (1) "prenatal yoga" (2) "the effect of prenatal yoga "(3) "pregnancy stress ". Articles that are not relevant and not appropriate with the criteria are not used. The inclusion criteria in writing scientific articles are research articles reported in English, published from 2014-2019, research is conducted on pregnant women, and using experimental research types.*

Result: *From all search results found 91 articles. Articles that appropriate with the inclusion criteria contain prenatal yoga interventions for the stress of pregnant women. The evidence has shown yoga can reduce depression or stress in pregnant women. The cortisol levels in pregnant women who do yoga are lower ($p < 0.01$) than pregnant women who not practising yoga and only do daily physical activity. Pregnant women who practice yoga have lower depression scores than those who do not practise.*

Conclusion: *In yoga, pregnant women practice various breathing techniques which help women to focus on breath and enjoy the labour process. Women also found to be more comfortable and less stress. Prenatal yoga can help pregnant women to control thoughts, desires, and react to stress.*

Keywords: *prenatal yoga, effect yoga, pregnancy stress*

ICASH-B006

COMPLEMENTARY AND NON-PHARMACOLOGY THERAPY FOR LABOR PAIN

Candra Tyas Nur Fitria*, Triana Sri Hardjanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding Author's E-mail: tyascandra.03@gmail.com

ABSTRACT

Background: A study of 2,700 mothers giving birth in 121 centres obstetrics of 36 countries found that only 15% of labor could happen without pain or mild pain. Pain in labor is a physiological response but can lead to increased catecholamine other detrimental uterine contractions causing uterine inertia, prolonged labor, inadequate oxygenation of the fetus to fetal distress, as well as maternal and or fetal death if not dealt with labor pain. The aim of this paper was to determine the effective method in reducing labor pain as an alternative method of pain management at the maternity.

Methods: A systematic review was done by searching the electronic databases, namely articles using google scholar, Science Direct, Pubmed and Sinta. Keywords used in Indonesian and English is the "Non-Pharmacological", "Pain", "Delivery", and "Therapy", "Pain Labor", "Pain Relief in Labor", "Non-Pharmacology", "Complementary Therapies" "Therapy". The inclusion criteria were retrieved articles among other researchers with the latest educational research S1 and articles with the last 4 years 2015 -2019, quantitative research, there are the instrument and fulltext.

Results: Search results through Google Scholar article was 841 articles, 909 articles from Science Direct, 101 articles and Sprott Pubmed much as 3 articles. As a summary, 15 articles comprising the Google Scholar database 6 articles, Science Direct by 5, 3 articles and 1 Sprott Pubmed were fulfilled the inclusion criteria. This literature review provides evidence that there are various methods available to reduce labour pain through complementary therapy. There are massage therapy, music, aromatherapy, warm compresses, breathing exercises (breath exercise) and exercise birth ball.

Conclusion: This study provides evidence that a valid method of complementary and non-pharmacological therapy effective in reducing pain during childbirth. Further studies related actions complementary and non-pharmacological therapy can be performed more deeply about which actions are most effective in reducing labor pain.

Keywords: Complementary Therapies, Non Pharmacology, Pain, Labor, Therapy

ICASH-B007

EXCLUSIVE BREASTFEEDING FOR STUNTING PREVENTION : A LITERATURE REVIEW

Diksi Laksmi Dewi*, Sri Rahayu

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: diksilaksmi@gmail.com

ABSTRACT

Background: World Health Organization (WHO) states that Indonesia's prevalence of stunting in 2005-2017 was 36,4% ; it is among the three countries with the highest prevalence of stunting infants in Southeast Asia / South-East Asia Regional (SEAR). Environment influential groups in the incidence of stunting are exclusive breastfeeding, and low quality of parenting practices. The objective of this article is to analyze the effectiveness of Exclusive Breastfeeding as prevention to stunting.

Methods: This article uses the method of literature review. The author uses keywords stunting, Exclusive Breastfeeding, the relationship between breastfeeding and stunting, the risk factor of stunting incidence, and the determinant of the occurrence of stunting. Utilize online resources like PNRI, Science Direct, PubMed, Elsevier and other related websites.

Results: Articles found as many as 20 out of 15,300 publications ranging from 2009 to 2019, which discusses stunting, and Exclusive Breastfeeding. Study of exclusive breastfeeding and its impact on the nutritional status of children in the countries of Empowered Action Group (EAG) showed that children who were given the Exclusive Breastfeeding significantly more likely to suffer mild or no stunting. Mother's milk is compounds that fulfil the nutritional needs of macro and micronutrients baby for 6 months. Unsaturated fatty acids namely DHA unsaturated (Docosahexanoic Acid) and arachidonic acid (AA), a long chain in breast milk, is very beneficial for the development of brain cells that supporting baby's intelligence. Gram in 100 ml of breast milk contains 62 kcal of energy, protein 1.5 g, fat 3.2 g, carbohydrates 7.0 g Calcium 34 mg and 0.2 mg Fe.

Conclusion: The evidence showed that Exclusive Breastfeeding since birth could prevent stunting. This prevention addressed to breastfeeding mothers and children aged 0-6 months, by encouraging early initiation of breastfeeding (breastfeeding after birth/colostrum), and encourage Exclusive Breastfeeding.

Keywords: Stunting, Exclusive Breastfeeding, Prevention Stunting

ICASH-B008

HERBAL LACTAGOGUE FOR BREASTFEEDING MOTHERS IN INDONESIA: A LITERATURE REVIEW

Dina Hanifa*, Sri Rahayu

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: hanifadina01@gmail.com

ABSTRACT

Background: Breastfeeding and exclusive breastfeeding program have a major contribution to the growth and development of the children. However, in Indonesia, the evidence has shown that the presentation of exclusive breastfeeding practice is only 35, 7% due to low production of breastmilk by the mother. Evidence showed that milk production could be improved by consuming drugs or herbs known as lactagogue. The objective of this study was to analyze the effect of lactagogue plants for mother's milk production of women in Indonesia.

Methods: The literature investigation was conducted in February 2009 until February 2019 through Google Scholar, Science Direct, and Pub Med with the keywords used were "Lactagogue" and "Herbs for milk production". In addition, the textbook and the relevant guidelines used to add further information or additional reports that are not identified in the electronic search.

Results: Lactagogue are substances suspected of helping the initiation, continuation, or augment milk production. There were 5 lactagogue plants reviewed in this study: *Coleus amboinicus* L., *Carica papaya*, *Moringa oleifera*, *Sauropus androgynus* and *Musa balbisiana* colla. The evidence showed that those plants contains chemical compounds that can stimulate the synthetic prolactin and oxytocin to increase the production and secretion of milk.

Conclusion: Lactagogue plants in Indonesia give positive effects that can be used as an alternative herbal breastfeeding mother in enhancing breast milk production.

Keywords: herbs, lactagogue, milk production

ICASH-B009

HEALING TOUCH AS COMPLEMENTERY TREATMENT IN MIDWIFERY ASPECT : A REVIEW

Endah Purwanti Handayani*, Ririn Indriani, Friska Oktaviana, Ida Ariyanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: wantibintangku@gmail.com

ABSTRACT

Background: Complementary therapy (CT) is therapy with increasing frequency in the field of medical treatment. CT is well-known as an alternative therapy, a therapy used in addition to general medical therapy. During this decade, midwifery care was carried out by combining conventional and complementary midwifery namely Healing Touch therapy. The aim of this paper was to analyze the possibility of Complementary Healing Touch therapy in midwifery scope.

Methods: The literature review was taken from Google Scholar journal and Science Direct starting from 2009 until 2019 with two keywords "Healing Touch in Midwifery" and "Complementary Therapy".

Results: Based on several studies, complementary therapy is currently used as an alternative therapy in addition to providing pharmacological therapy. Touch Healing Therapy also has benefits in reducing anxiety biopsy in breast examination. The results showed a statistically significant reduction in anxiety maintained the following day after giving touch healing therapy

Conclusion: Complementary treatment has been widely used by nurses and midwives health workers both in Indonesia and other countries as well. Healing touch therapy is also an option in providing this complementary therapy not only in the field of nursing but also in the field of midwifery.

Keywords: Complementary, Healing Touch, Midwifery

ICASH-B010

MESSAGE FOR REDUCING POST-CESAREAN PAIN: A SYSTEMATIC REVIEW

Enny Trisanti*, Runjati, Tecky Afifah Santy Amarta

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: arni.deliyanti@gmail.com

ABSTRACT

Background: Pain is a common complication of Cesarean Section (CS). Pain can affect the bond between mother and infant, influence the breastfeeding process, inhibiting the mobilization and increase the risk of postpartum complications. Ongoing pain can affect the health of the mother, therefore we need effective pain management. Effective pain management can be combined and complementary pharmacological therapy through massage therapy. The purpose of this paper was to analyse the effectiveness of massage to relieve pain in post-cesarean.

Methods: Systematic review was based on the search of Google Scholar, Science Direct and Pubmed published from 2014 to 2019. The keywords used are complementary therapies, massage, pain, post-cesarean, and post-cesarean pain. Articles used using inclusion and exclusion criteria. Assessment of quality of articles using Jadad score.

Results: The literature review in accordance with the search strategy in getting as many as 241 articles published last five years related to the effect of massage on pain, 75 were deleted because it has the same title. A total of 158 articles are not relevant to the article. From the 8 article's, 1artikel is non-RCT research, after using the inclusion and exclusion criteria obtained 7 articles that are eligible for this literature review. As results, massage is one of the complementary therapies that can be used to reduce pain. Massage on the foot and hand have proven effective in reducing post-cesarean pain as it stimulates receptors which send impulses to the central nervous system.

Conclusion: Massage therapy has proven to have fewer side effects and is relatively inexpensive. This systematic review confirms that there is empirical evidence that massage is effective for reducing post-cesarean pain. Implementation of the message can be with or without oil.

Keywords: complementary therapies, post-cesarean, post-cesarean pain

ICASH-B011

COMBINATION OF ACUPRESSURE WITH YOGA (ACUYOGA) TO REDUCE BACK PAIN IN PREGNANT WOMEN

Entan Afriannisyah*, Agustin Setianingsih

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: frauentanafriannisyah@gmail.com

ABSTRACT

Background: Nearly 50% of lower back pain is experienced by pregnant women. As many as 43.9% of low back pain experienced by second-trimester pregnant women. Some method to reduce the back pain has been known through acupressure, yoga, and acuyoga. The purpose of this paper was to analyze the most effective method to overcome discomfort during pregnancy of pregnant women in Indonesia.

Methods: The research method used is a systematic literature review. Research articles were reviewed with strategies for searching national and international electronic journals, namely google scholar and science direct by using keywords. An electronic journal obtained 15 out of 395 journals on acupressure to reduce back pain in pregnant women, publications ranging from 2009-2019, using Indonesian and English are presented in this review.

Results: Yoga has physical and psychological benefits such as reducing back pain, insomnia, depression, weakness, stress, and relieving muscle tension or pain. In the other hand, acupressure would benefit in increasing endurance, reducing back pain (Low Back Pain) and overcome the labour pain. The combination of yoga and acupressure, called acuyoga could stimulate the body to release and increase the production of endorphins and enkephalin substances which function to inhibit pain. Acuyoga is a movement or breathing exercise, meditation, relaxation and using fine massage meridian points on non-meridian points that function to normalize the body's mechanism and homeostatic response so that it can overcome stress and back pain in pregnant women

Conclusion: Acuyoga as a combination of acupressure and yoga is the right holistic treatment to reduce back pain in third-trimester pregnant women. This therapy may reduce the use of analgesia in pregnant women who have back pain.

Keyword: Acupressure, Pregnancy, Back Pain, Yoga

ICASH-B012

EFFECTIVENESS OF FENUGREEK SEEDS (*Trigonella foenum-graecum*) ON BREAST MILK PRODUCTION: A LITERATURE REVIEW

Erlin Chusnia Putri*, Dyah Fatmasari

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's e-mail: erlinchusnia@gmail.com

ABSTRACT

Backgrounds: A survey in Indonesia in 2015 to 2017 has noted the decreasing number of infants who get exclusive breastfeeding from 54.2% to 28.5% due to the lack of breast milk production by the mothers. However, the herbal products has been used as galactagogue to increased milk production as it contain of phytoestrogens, diosgenin and steroid. One of the herb that been used was the fenugreek seeds (*Trigonella foenumgraecum*). The aim of this paper was to analyze whether fenugreek is effective in maximizing breast milk production.

Methods: The literature review is carried out using the electronic database Science Direct, PubMed, and Google Scholar. Fenugreek as breast milk booster is used as a keyword in the search strategy.

Results: There were 17.200 articles ranging from 2010 to May 2017 found with the keywords. As many as 23 articles were included in this review. The data has showed that fenugreek herbs can help maximize breast milk production at the lacto genesis stage. The evidence showed that fenugreek can produce prolactin hormone which can increase milk production yet it have no harmful side effects that occur in the mother or baby.

Conclusions: Fenugreek intervention is effectively could maximized the breast milk production at the beginning of labor.

Keywords: fenugreek seed, breast milk production, galactatogue

ICASH-B013

MASSAGE FOR WEIGHT GAIN AND REDUCING TIME OF HOSPITALIZATION ON PRETERM BABY IN NICU ROOM: A LITERATURE REVIEW

Ester Dolla*, Dyah Fatmasari

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's e-mail: esterdolla123@gmail.com

ABSTRACT

Background: Birth of premature infants (born at <37 weeks' gestation) is a major cause of neonatal morbidity and mortality in Indonesia and affects 35% of babies born in Indonesia. Premature birth obtaining high-tech care in the NICU room. The babies are still a problem and require long treatment time at the NICU until they could gain minimum weight. The aim of this study was to analyze the effectiveness of massage therapy treatments related to weight gain given to premature babies while being hospitalized (NICU).

Methods: The method used in finding articles were literature reviews were done electronically through searched in the Science Direct database, PubMed, Google Scholar, and Cochrane with a period of 2013 to 2019. The selected articles are articles in English, China, contains full text.

Results: There were 26 articles that met the inclusion requirements and were included in the analysis of this study. A review concluded that therapy with a variety of massage methods proved effective in physical growth and nerve development, brain, reducing stress and neonatal sepsis, reducing the number of days to care in hospital. A meta-analysis concludes that massage therapy is a pleasant step for babies at NICU for weight gain and increasing mental development. It also reduces bilirubin levels in infants who experience hyperbilirunemia, both premature and atherem neonates.

Conclusions: From a randomized control trial (RCT), a systematic review and meta-analysis concluded that the effects of massage therapy interventions on premature infants at NICU were effective in increasing body weight and other physical growth, neurodevelopment and shortening the length of treatment at the NICU, but still needed do further research on RCT with more samples.

Key words: Therapy massage, premature baby, weight gain, NICU care.

ICASH-B014

THE EFFECT OF OXYTOCIN AND PAPAYA EXTRACT ON PROLACTIN HORMONE LEVELS AND BREAST MILK VOLUME IN NORMAL POST PARTUM MOTHERS

Ewith Widya Mareta, Triana Sri Hardjanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

Corresponding Author's e-mail : ewithwidya28@gmail.com

ABSTRACT

Background: Prolactin hormone and oxytocin has been known as two main hormones that play a role in increasing mother's milk production. However, the psychological conditions of the mother affect these hormones. The aim of this paper was to analyse the increasing prolactin and volume of breast milk in postpartum mothers through the treatment of oxytocin massage and papaya extract.

Method: The literature review was carried out using a science direct electronic database. Google Scholar. The two keywords used in this study were "The effect of oxytocin and papaya extract on hormone prolactin levels" and "The volume of breast milk" publications ranging from 2009 to 2019.

Results: Several studies have shown that oxytocin massage and papaya extract in breastfeeding mothers can be stimulated and increase the prolactin and resulted in increasing the secretion and amount of milk production. In addition, the massage also gives comfort to the mother, reduces swelling (engorgement), reduces blockage of milk, affect the peripheral nervous system, and stopping the pain and increasing blood flow to tissues and organs. The content of lactagogum (lactagogue) in papaya can be one way to increase the rate of secretion and the production of breast milk.

Conclusion: The data has shown that the oxytocin message and papaya extract effectively increase the hormone prolactin levels and breast milk volume in normal postpartum mothers. Papaya extracts also safe for consumption by postpartum mothers (breastfeeding).

Keyword: Oxytocin Massage, Prolactin Hormone, Breast Milk

ICASH-B015

PARENTS' ROLE IN TODDLERS FEEDING FOR OBESITY PREVENTION

Friska Oktaviana*, Ririn Indriani, Endah P Handayani, Ida Ariyanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: friskaoktaviana15@gmail.com

ABSTRACT

Background: *The rate of obesity among toddlers in Indonesia increases in the past decade. Parenting style is seen as one of the factors influencing the risk of toddler obesity. This study aims to identify parenting styles in feeding the toddlers as preventive action of the occurrence of obesity among toddlers.*

Method: *This study was a literature review which the data was obtained through online databases including PubMed, Science Direct, Google Scholar and others. Foster patterns and obesity were used as the keywords in the search. This article reviewed in this study was limited only those who were published between 2016 and 2019.*

Results: *Nine articles were included in this study. Study found that a good parenting style from exclusive breastfeeding to weaning food period formed a good diet and monitored toddlers' growth in order to reduce the risk of obesity. However, other articles revealed that children and parents had different eating patterns so that parenting style did not affect feeding practices. The difference of mothers' perspectives on the ideal body weight of the toddlers affected the feeding practices on the toddlers.*

Conclusion: *Parenting patterns influenced the practice of feeding children under five by giving attention, monitoring their food, growth, and development so that it reduced the risk of obesity.*

Keywords: *parenting styles, feeding practices, toddler obesity*

ICASH-B016

SOYBEAN, PALM DATE, AND KATUK LEAVES CONSUMPTION TO INCREASE BREASTMILK PRODUCTION

Handayani*, Susanti Pratamaningtyas

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: handayaniketut123@gmail.com

ABSTRACT

Background: *The difficulty in producing breast milk during breastfeeding period is still a common problem faced by the mothers. Nutritional intake is one of the factors that influences on the increasing production of the breast milk. This study aims to analyze the benefits of soybeans, dates and katuk leaves to increase milk production in nursing mothers.*

Methods: *This study was a systematic review using PRISMA guidelines. Electronic databases including PubMed, Google Scholar, and Elsevier were used in this study. Articles published from 2014 to February 2019 and written both in English and Indonesian language were reviewed. The keywords used in this study were 'soybean, 'dates', katuk leaves' and 'ASI production'.*

Results: *There were 95 articles recorded in the search, of which seven studies were included in the systematic review. Soybean that contains isoflavones as well as a lot of nutritious components in the date palm helped mothers in increasing the production of breast milk. Furthermore, the distribution of alkaloids and sterols in katuk leaves was proved as a factor that increased the production of breast milk during lactation.*

Conclusion: *Consumption of soybeans, dates and leaf katuk proved as the important factors in increasing breast milk production among mothers, therefore health practitioners need to suggest the nursing mothers in consuming those kinds of foods.*

Keywords: *soybean, dates, katuk leaves, breast milk production*

ICASH-B017

HERBS FOR EPISIOTOMY WOUND HEALING

Hasriyanti Romadhoni F*, Soeharyo Hadisaputro, Dhias Widiastuti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: hasriyantiroadhoni02@gmail.com

ABSTRACT

Background: *Delaying process of the perineal pain in the episiotomy wounds causes health problems among mothers. Accelerating the episiotomy wounds healing, especially through the traditional medicine, is needed. This study aims to review the effectiveness of using various herbal medicines in the management of episiotomy wound healing.*

Method: *The literature review was conducted using several electronic databases, namely Google Scholar, Science Direct, and PubMed. The keywords used in this study were "herbal for episiotomy wound healing". Articles published between 2010 and February 2019 as well as in English and Indonesian language were included in the study.*

Results: *There were 12 articles of 567 publications recorded in the search. Traditional medicine, especially, herbal treatments consumption, that showed effectively in accelerating the episiotomy wounds healing were turmeric and tamarind, Aloe vera, calendula, Achillea millefolium and hypercium leaves, binahong leaves, cinnamon, green tea, Equisetum arvense, and betel leaves. Most components contained in these herbal treatments were phenolic, flavonoids, tannins, antioxidant, antiseptic, and antibacterial.*

Conclusion: *Some herbal treatments proved effectively accelerating the healing of episiotomy wounds. The development of this traditional medicine is needed as a complementary therapy for healing the episiotomy wounds.*

Keywords: *episiotomy wound healing, traditional medicine, herbal treatments*

ICASH-B018

ACUPRESSURE FOR REDUCING BACK PAIN IN TRIMESTER III PREGNANT WOMEN

Herlina, Sri Sumarni, Rr Sri Endang Pujiastuti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: silitongasanto@yahoo.com

ABSTRAK

Background: Back pain is a common problem occurred in the pregnant women and now becomes a serious concern that needs to be overcome. Receiving an acupressure correctly is one of complementary treatments that is seen as an alternative to reduce pain without having side effects. This study aims to analyze the role of acupressure in reducing back pain among the third trimester pregnant women.

Method: This was a literature review using electronic databases Google Scholar and DOAJ. Articles published from 2014 to 2018 using Indonesian and English language were reviewed in this study. Other inclusion criteria used in the study were using keywords 'acupressure', 'back pain', trimester III pregnancy' and an experimental study.

Results: There were 295 articles identified in the search, of which six articles were included in the study. Acupressure found significantly associated with the lowering back pain among third trimester pregnant women. However, the combination between acupressure and other methods such as yoga, massage, aromatherapy and pregnancy exercises was also correlated to the reduction of back pain of the respondents.

Conclusion: Receiving acupressure as a non-pharmacological therapy in the third semester was an effective way to reduce back pain among pregnant women. A further development of practical guidelines for the application of acupressure is needed.

Keywords: Acupressure, back pain, trimester III pregnancy

ICASH-B019

BIOMARKERS ARE THE BEST SCREENING TO PREDICT PREECLAMPSIA: A REVIEW

Ica Maulina Rifkiyatul Islami*, Meisha Julian Anggraini, Rizky Amelia

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: ica.maulina@gmail.com

ABSTRACT

Introduction: Hypertension which is an indication of the occurrence of preeclampsia among pregnant women is still high in Indonesia. Early screening is needed to prevent the worsening of the condition of preeclampsia in pregnant women. The purpose of this study is to analyze the screening for early detection of preeclampsia in pregnant women.

Method: A literature review was used in this study which the data were obtained from electronic databases Science Direct, Google Scholar and other related websites. The keywords used in this study were predictive and preeclampsia. English articles included chapters of relevant textbooks and guidelines published from 2009 to April 2019 were chosen in this study.

Results: A total of 36 of the 7,685 publications recorded were included in the study. Uterine doppler and biomarkers measurements such as sFlt-1/PlGF, NTproCNP, free fat serum, VEGF, Sundoglin, PlGF and sEGFR were among screening measurements to predict the preeclampsia. However, screening 4 proteins, namely VEGF, Scandal, PlGF and SEGFR simultaneously had high effectiveness in predicting preeclampsia

Conclusion: Biomarker screening was considered as more effective screening to predict preeclampsia compared to uterine doppler screening. However, the four proteins screening had the highest effectiveness for predicting preeclampsia.

Keywords: Prediction, preeclampsia, uterine doppler, biomarkers, four proteins

ICASH-B020

PREGNANCY MASSAGE THERAPY TO REDUCE DEPRESSION: A SYSTEMATIC REVIEW

Isnu Kurnia Nugrahaeni*, Mardiyono Mardiyono

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: kurniaisnu@gmail.com

ABSTRACT

Background: Depression in pregnancy that is not immediately treated adversely affects the health outcomes of mothers and neonatal. Massage therapy during pregnancy is seen as one of the depression treatments for mothers during pregnancy. This study aims to analyze the effect of massage therapy to reduce pregnancy depression.

Methods: The systematic review was conducted based on Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA Protocols). Articles published from 2009 to 2019 in some electronic databases including PubMed, Google Scholar, and Science Direct were included in this study. Published articles written in English and Indonesia language with some keywords 'depression in pregnancy' 'pregnancy massage', and 'complementary and alternative medicine in pregnancy' were used in the search strategy.

Results: In total, there were 341 articles identified through databases searching, of which 5 articles were included in the systematic review. Pregnancy massage was begun at 12 weeks until 36 weeks with the duration 20-minute. Most studies showed that massage therapy had an effect on reducing maternal and infant cortisol levels, minimizing preterm birth and low birth weight, increasing maternal immunity, reducing back pain, and improving the quality of sleep for pregnant women.

Conclusion: Massage therapy performed by trained and certified health practitioners during pregnancy proved in reducing depression among mothers.

Keywords: pregnancy massage, complementary medicine, depression in pregnancy

ICASH-B021

CHILDBIRTH ATTENDED BY LABOR DOULA: A LITERATURE REVIEW

Kintan Anissa*, Kun Aristanti Susiloretni

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: sekarangraini202@gmail.com

ABSTRACT

Background: *The use of professional support person during pregnancy and childbirth or well-known as doula becomes more popular among women in the world. Its role is believed in helping women preparing their delivery as well as preventing the occurrence of complications. This study aims to analyze the effect of a doula's role for pregnant women.*

Method: *This study was a literature review using electronic databases Science Direct, Pubmed and Google Scholar. The keywords used in this study were Support Doula, Labor Pain, Child Birth Labor, and Reduce Birth Cesarea. The articles reviewed in this study included those who were published between 2009 and 2019 both Indonesian and English language.*

Results: *Nine articles were included in this study consisted of 7 international journals and 2 national journals. The study found that the role of doulas in the delivery process improved the health status of newborns assessed by Apgar scores. Other findings showed that their rules influenced both psychosocial and physical in the delivery process, reduced the intensity of labor pain and improved the acceleration of the delivery process. The support from doulas were effective in reducing the caesarean section among pregnant women.*

Conclusion: *The comprehensive role of the doula was effective since the early days of pregnancy in order to achieve good results in the delivery process for mothers and newborns as well as their family.*

Keywords: *birth doula, effectiveness, pregnancy and delivery*

ICASH-B022

MOBILE APPLICATION FOR EARLY DETECTION OF BREAST CANCER: A REVIEW

Marátus Sholichah Fitriah Hajar Kusnianto*, Listiyaning Eko Martanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: maratussholichafitria@gmail.com

ABSTRACT

Introduction: Cancer is one of the leading causes of death for women in the world. Early detection of cancer can improve the prognosis of morbidity and reduce mortality. The use of applications mobile can help increase awareness in early detection of breast cancer. The purpose of this study to find out applications mobile that can increase awareness of early detection of breast cancer.

Method: The research article used is based on searches from Science Direct, Google Scholar, PubMed, Springer Link, and AJPB from 2010 until 2019. The keyword used is "early detection of breast cancer using application mobile" which is presented in English.

Results: 7 studies outcomes regarding the early detection of breast cancer using application mobile were analyzed in this study. The application of smartphones as information media has a good role and potential in managing the risk of health behavior and accelerating behavior change to improve the results of health care.

Conclusion: Several studies proved that the use of applications mobile could increase awareness in early detection of breast cancer. Mobile applications could be used to help women overcome barriers to screening of breast cancer easier.

Keywords: breast cancer, application mobile, early detection, own breast examination, mammography

ICASH-B023

IS UTERINE MASSAGE EFFECTIVE TO PREVENT POSTPARTUM HEMORRHAGE? A REVIEW

Meisha Julian Angraini*, Ica Maulina, Rizky Amelia

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: meishaangraini@gmail.com

ABSTRACT

Introduction: Hemorrhage is a major cause of high maternal mortality in Indonesia. Active management of the third stage of labor (AMTSL) is one of the preventative measures taken to prevent postpartum hemorrhage. In Indonesia, childbirth assistance still uses uterine massage as the main component in AMTSL that refers to the WHO provisions in 2007. The purpose of this study was to analyze the effectiveness of uterine massage in preventing postpartum hemorrhage.

Methods: Research journals were obtained from electronic data such as Science Direct, Pubmed, Google Scholar and other related websites. The number of keywords used is "uterine massage", "active management when III" and "postpartum hemorrhage". A total of 5 journals were analyzed ranging from 2010 to 2018, which discussed active management in the third stage, especially uterine massage.

Results: Five literatures were analyzed. Two journals were proved the effectiveness of uterine massage to prevent postpartum hemorrhage. Uterine massage and AMTSL make the mother's condition better, reduce loss blood and reduce the duration of care in the hospital. This was contradicted by 3 other journals stating that routine uterine massage did not provide additional benefits when combined with oxytocin administration or carried out independently without oxytocin. So that uterine massage is not needed for prevention of postpartum hemorrhage. Taking a uterine massage for each woman is something that takes up the health workers' time and does not provide benefits to prevent hemorrhage.

Conclusion: The most important component in active management in the third stage is administration of uterotonica (oxytocin). More studies were proved that uterine massage does not effective to prevent hemorrhage in case of coupled with the administration of uterotonica.

Keywords: Massage uterus, Active management of the third stage of labor, Postpartum hemorrhage

ICASH-B024

THERAPY FOR PREECLAMPSIA SHOULD BE COMBINED FOR MAXIMUM TREATMENT: A SYSTEMATIC REVIEW

Miftah Nurlaily El Akhlaq^{*}, Mardiyono Mardiyono

Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: miftahelakhlaq@gmail.com

ABSTRACT

Background: *Pre-eclampsia is the leading cause of maternal death in the world. Therapy and treatment of becoming essential to prevent pre-eclampsia cases. However, these therapies have not been proven to significantly reduce the risk of pre-eclampsia. The purpose of this study to analyze existing studies regarding the benefit of therapies for the prevention and treatment of pre-eclampsia.*

Method: *Systematic review method was used to analyze this study. The literature search method is used PRISMA method from three sources included of PubMed, Google Scholar, and Pro Quest databases. The keywords were used "treatment" and "pre-eclampsia" or "eclampsia" from 2009 until 2019. The inclusion criteria are English language articles, available in full-text articles, and using experimental study designs with randomized controlled trials.*

Results: *From 560 articles found, 8 articles are eligible with the inclusion criteria. Half of the total studies proven that Magnesium Sulfate had the highest level of effectiveness and recommendations compared to other therapies, but several considerations related to side effects, convenience, and availability of drugs still had to be considered.*

Conclusion: *Several studies proved that the treatment of pre-eclampsia using magnesium sulfate has been shown to significantly reduce the risk of eclampsia. The combination of therapies by considering the target organs as a whole is strongly recommended to continue further research in order to achieve maximum preeclampsia treatment.*

Keywords: *Treatment, Therapies, Pre-eclampsia, Eclampsia*

ICASH-B025

OVERSEAS EARLY BREASTFEEDING INITIATION PROGRAM: A SYSTEMATIC REVIEW

Oknalita Simbolon* , Yovialist Radjatadoe, Mardiono Mardiono, Cristinawati B\R Sihaloho

Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: kikiwisucipto@yahoo.com

ABSTRACT

Backgrounds: *Infectious diseases and malnutrition due to inappropriate breastfeeding practices are the main causes of infant mortality in developing countries. Early Breastfeeding Initiation (IMD) estimated could reduce morbidity, mortality and obesity in infants. The purpose of this study to analyze the benefit of IMD and to determine the factors that influence the problem of initiation of early breastfeeding.*

Methods: *This study is used a systematic review method by using PRISMA approach through search sources namely Biomed Central, Nature, IJMSPH and ICMJE from 2012 to 2017. The keywords are used "Breastfeeding Early Initiation" and "Breastfeeding". The inclusion criteria of study included the respondents were postpartum mothers, subject who have breastfeeding problems, and subject who conducted Early Breastfeeding Initiations. 1507 articles in English language were found in this study.*

Results: *From 1507 studies found only 14 studies included in this study. Shows the factors that influence the problem of initiating early breastfeeding. Based on previous studies reported that the absence of neonatal guidance in hospital, place of residence, economic status can influence the problem of initiation of early breastfeeding. Moreover, maternal attitudes of breastfeeding positively correlate to decreasing length of stay her baby's in hospital.*

Conclusions: *Several studies proved early initiation of breastfeeding (IMD) is essential to stimulate the production of Breast Milk and results in the protection of antibodies to newborns and reduces bleeding in postpartum mothers and also a better understanding of factors related to breast care and delayed giving additional food.*

Keywords: *Early Breastfeeding Initiation, Breastfeeding, Postpartum mother*

ICASH-B026

EFFECTIVENESS OF BABY MASSAGE IN REDUCING BILIRUBIN LEVELS AMONG INFANTS WITH HYPERBILIRUBINEMIA: A LITERATURE REVIEW

Paulina Pida*, Listyaning Eko Martanti

Semarang Health Polytechnic, Semarang, Indonesia

*Corresponding author's email: paulinapida332@gmail.com

ABSTRACT

Introduction: *Newborns who experienced by hyperbilirubinemia which not treated properly can result in transient, reversible encephalopathy and kernicterus. It would result in central nervous system dysfunction to death. Therefore, safety, comfort and fewer side effect of therapy are needed. One of the solutions is baby massage. This study aims to analyze the effectiveness of baby massage to lower bilirubin levels in infants with hyperbilirubinemia.*

Methods: *This study was conducted a literature review method to analyze studies by accessing internet resources from ScienceDirect, Sage Publications, PubMed, and Google Scholar databases. The keywords used in the web searching were "Baby Massage", "Neonatal Jaundice", "Hyperbilirubinemia". The total articles obtained were 13, but only eight articles met the inclusion criteria of written in English and Indonesian, full-text paper within the period of 2015-2018. However, articles in the form of papers and theses were excluded from the article selection. There was no provision regarding the study type in the selection process.*

Results: *Articles found reported that the effectiveness of infant massage was carried out in the morning and evening on average for 15-20 minutes using oil or not. The techniques used also varied such as vimala and field techniques. The effect of massage on infants was that it could lower bilirubin levels in normal and premature infants, shorten the length of care of infants in perinatology ward, and increase the frequency of defecation of newborns with hyperbilirubinemia.*

Conclusion: *Several studies proved that massage therapy could be used to prevent an increase in serum or transcutaneous bilirubin levels and also as an adjuvant therapy to infants undergoing phototherapy.*

Keywords: *Baby Massage, Neonatal Jaundice, Hyperbilirubinemia*

ICASH-B027

AROMATHERAPY FOR NAUSEA AND VOMITING IN PREGNANCY: A LITERATURE REVIEW

Putri Maretyara Sptyani*, Riska Ismawati Hakim, Umaroh Umaroh, Ari Suwondo

Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: putrim96@gmail.com

ABSTRACT

Background: 50 to 90% of the incidence of nausea and vomiting most often occur in early stage of pregnancy. In addition to the use of drugs, nausea and vomiting can also be overcome by non-pharmacological therapies such as the use of aromatherapy. This study aims to determine the effectiveness of aromatherapy on nausea and vomiting in pregnant women.

Method: This study was used literature review method. The electronic database included Science Direct, Plumed, and Google Scholar database are used to search for articles. Aromatherapy nausea vomiting, aromatherapy in pregnancy are used as a keyword in the search strategy. The inclusion criteria on study analyses are using pregnant women who experienced nausea and vomiting at the beginning of pregnancy as a subject, the intervention which using aromatherapy, research conducted randomized controlled trial articles which conducted from 2009 to 2019 and presented in English.

Results: Several studies reported a similar result that aromatherapy is a complementary therapy that is safe for pregnant women who can reduce nausea and vomiting in pregnant women. This study also found that aromatherapy the most effective aromatherapy are lemon and ginger compared to others.

Conclusion: This study proved that regarding several studies, aromatherapy, especially lemon and ginger aromatherapy proved could reduce nausea and vomiting in pregnant women

Keywords: aromatherapy, nausea and vomiting, pregnancy

ICASH-B028

EFFECTIVENESS OF MASSAGE FOR BABY'S GROWTH AND STUNTING DETECTION : A LITERATURE RIVIEW

Ririn Indriani*, Endah P Handayani, Friska Oktaviana, Ida Ariyanti

Master of Applied Science in midwifery, Poltekkes Kemenkes Semarang

*Corresponding author's email: ririnindriani79@yahoo.com

ABSTRACT

Introduction: Stunting has short-term and long-term health consequences. Today, it is still the world's attention. Refers to the World Health Organization, the global target to reduce the consequences of the burden of malnutrition includes stunting among children under the age of 5 in 2025. This study aims to determine the effectiveness of infant massage as monitoring growth method and stunting detection among babies 0-6 month.

Methods: The literature review method was carried out in this study. These resources come from electronic databases included Google Scholar, Pubmed, Science Direct, EBSCOhost and textbooks using keywords such as baby massage, baby growth, stunting detection. A total of 29 of 73 publications from June to December 2016 and presented in Indonesian and English were included in this review.

Results: This study found that several studies show of baby massage is positively correlation to detect stunting among babies. The procedure starts from a stretching motion, followed by an integrated core movement. It can increase the potential for nerve action that stimulates the vagus nerve, accelerates blood circulation, activates nerve cells and its gross motor will work optimally.

Conclusions: This study proved of infant massage as monitoring growth method and stunting detection among babies. This study is essential to encourage mothers to carry baby massage.

Keywords: Baby massage, Babies growth, Stunting detection

ICASH-B029

CORRELATION BETWEEN LEVEL OF KNOWLEDGE AND PRACTICING BREAKFAST AMONG UNDERGRADUATE STUDENTS IN FACULTY OF PUBLIC HEALTH UNIVERSITY OF INDONESIA

Martha Jessica, Adang Bachtiar

Faculty of Public Health, Universitas Indonesia, Indonesia

*Corresponding author's email: martha.jessica@ui.ac.id

ABSTRACT

Background: There are many crucial benefits of breakfast—the most important meal of the day^{1,2}—, such as more adequate intakes of nutrients; lower BMI; higher cognitive performance; improved energy levels³. However, in 2012, the prevalence of not eating breakfast daily in Indonesian children and adolescents is 16.9%-59% and in adults is 31.2%⁴. This study aims at investigating the correlation between level of knowledge and behavior of breakfast among UI Public Health undergraduate students who will later become the breakfast promoters to the community.

Methods: This study used cross-sectional method on 80 Public Health undergraduate students in UI aged 17 to 22 on April 23rd 2019 and was chosen by quota sampling. The level of knowledge and behavior was obtained by questionnaire and the result was analyzed by using IBM SPSS Statistics 22.

Results: The analysis shows that 38 (47,5%) students have good level of knowledge and behavior, 20 (25%) students have good level of knowledge but bad behavior, 18 (22.5%) students have poor level of knowledge but good behavior and 4 (5%) students have poor level of knowledge and behavior. Based on Pearson Chi Square test result, the p value is 0,251 which means there is no significant correlation between level of knowledge and behavior of breakfast.

Conclusions: There are still many other factors besides knowledge that motivate someone to have breakfast. This is seen from 25% of the number of students have good breakfast knowledge but poor behavior and 22.5% vice versa. Intensifying the socialization of the breakfast importance and uniforming the implementation of breakfast program in kindergartens and elementary schools throughout Indonesia by involving teachers, parents and local farmers⁵ need to be done. Children are strategic targets because early childhood years form the basis of intelligence, personality, habit as adults.

Keywords: Breakfast, Level of Knowledge, Behavior

ICASH-B030

THE LEVEL OF KNOWLEDGE ON 1000 THOUSAND FIRST DAYS OF LIFE AMONG HEALTH SCIENCE STUDENTS IN UNIVERSITY OF INDONESIA

Melissa Paulina Pasaribu, Adang Bachtiar

Faculty of Public Health, University of Indonesia

*Corresponding author's e-mail: melissa.paulina@ui.ac.id

ABSTRACT

Background : *One thousand first days of life is the time when life began in time pregnancy until the child is aged two years so, this moment decide human quality. Knowledge about 1000 first days of life is important to know by teenagers who will later have a family. This is one of the efforts to improve the health of the people and create a better generation of the nation.*

Methods: *This study used a descriptive design with cross-sectional method on health science cluster students in University of Indonesia from 17th April until 24th April 2019. There was 85 samples and was chosen by quota sampling. Data is analyzed descriptively to see the frequency distribution generated.*

Result :*The mean score of respondent in knowledge question is 87,24 of 100 points. The level of knowledge is categorized into four, there are: very poor, poor, fair, and good. The results showed that there were no students with very poor knowledge. There are 1.2% student have poor knowledge and 10.6% have fair knowledge. Majority of students have good knowledge of 1000 first days of life.*

Conclusions : *Most of student have good knowledge about 1000 first day of life. There is still need more improvement to increase knowledge to overall students.*

Keyword : *1000 First Days of Life, Level of Knowledge.*

ICASH-B031

THE EFFECT OF HYPNOTHERAPY FOR DECREASING ANXIETY IN PREGNANCY AND CHILDBIRTH

Shandy Wigya Mahanani*, Isnu, Umaroh

Poltekkes Kemenkes Semarang, Jalan Tirto Agung, Pedalangan, Banyumanik, Semarang, Indonesia

*Corresponding author's email: shandywigya.4514046@gmail.com

ABSTRACT

Background: Psychological problems, such as fear and anxiety are experienced in the mother's subconscious mind, which promote the negative thoughts. The psychological burden can induce some problems in labor complications, which interfere with the normal process of pregnancy and childbirth. The psychological condition of the mothers who are less supportive cause stress. Therefore, it can cause tense muscles, stiffness, labor pain and hard, as well as inelastic birth canal. The negative thoughts accompanied by pain, will improve the work of the sympathetic nervous system. The hypothalamus sends a signal to the pituitary gland, to reduce the hormone cortisol, which is a stress hormone. Therefore the autonomic nervous system activates the adrenal glands which induce physical tension and pain in pregnant women. The purpose of this study was to determine the effect of hypnotherapy on reducing anxiety of pregnant and maternal mothers.

Methods: This research article reviewed from electronic databases including Science Direct, Google Scholar and other related websites. The number of keywords used included 21 "Hypnotherapy" and "anxiety" From 14843 Publications ranging from 2008 to 2018. The use of the hypnotherapy method to reduce anxiety in pregnant women was presented in English, included in this review.

Results: Pregnant women who take hypnotherapy showed that the anxiety was decreased, gain peace of mind and instill positive thoughts on the subconscious mind. It was due to during the hypnotherapy process, the mother experienced deep physical relaxation, focused attention, increased sensory ability, and relaxed.

Conclusion: The hypnotherapy is effective reduce anxiety, gain peace of mind and instill positive thoughts in the subconscious mind.

Keyword: Hypnotherapy, anxiety, pregnancy, childbirth

ICASH-B032

DETERMINANTS OF STUNTING AMONG UNDER-FIVE IN INDONESIA: A LITERATURE REVIEW

Sherly Dwi Gustiya*, Ngadiyono

Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: sherlydwig@gmail.com

ABSTRACT

Background: According to the World Health Organization (WHO) the maximum limit of infant stunting is 20%. In Indonesia, the incidence of stunting showed a prevalence of 30.8% in 2018 but it is still above the maximum rate set by WHO. The aim of this study is to find out the determination of stunting phenomenon from several causes in order to determine the precautions to reduce this stunting phenomenon in Indonesia.

Methods: The literature review used various research articles published in several accredited journals and searched through the electronic database engine of Garuda Ristekdikti, Proquest, DOAJ and Google Scholar. Five research articles were selected by the author in accordance with the inclusion criteria for literature studies published in 2012-2018 using Indonesian and English.

Results: From the five articles which were taken by the authors, the causal factors of stunting are mother's education, Nutrition Awareness in the Family, complementary feeding, family income, exclusive breastfeeding, and Low birth weight (LBW).

Conclusion: The most influential factors in stunting is low birth weight (LBW), therefore a prevention of LBW births should be solved starting from nutritional intake in women before marriage until their pregnancy.

Keywords: Stunting, stunting determinant, stunting phenomenon factor

ICASH-B033

THE EFFECTIVENESS OF MINDFULNESS THERAPY FOR ANXIETY AND DEPRESSION IN PREGNANT WOMEN: A REVIEW

Siti Nurharisah*, Sri W Mamat, Diyas Windarena, Beniqna M Besmaya

Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: sitinurharisah1@gmail.com

ABSTRACT

Background: *The depression was commonly occurs during pregnancy and postpartum. Unfortunately, it promotes the adverse outcomes for the mothers and babies. The mindfulness therapy has been shown to reduce the risk of anxiety and depression in pregnant women. This study presents a systematic review that aims to examine the findings of existing research studies in 2016 to 2019, about the effectiveness of mindfulness-based therapy for anxiety and depression in pregnant women.*

Methods: *This study used a systematic assessment to identify all published literature using relevant keywords. The papers were selected with criteria published at least 10 years ago with English. The systematic assessment were selected using inclusion and exclusion criteria. The inclusions were articles from research, reported in English, published from 2009 up to 2019, with Randomized Controlled Trial (RCT) research designs. The inclusion criteria for respondents were all pregnant women who experienced anxiety and depression based on the results of the Edinburgh Depression Scale for depression and the Beck Anxiety Inventory for anxiety. Otherwise, the exclusion criteria were pregnant women who need special therapy.*

Results: *Results showed that in five countries the mindfulness therapy was effectively reduced anxiety and depression in pregnant women.*

Conclusion: *The mindfulness therapy is effective to improve mood in pregnant women, positively influences labor, reduces childbirth fear, and improves adjustment in the perinatal and postpartum periods. Therefore, mindfulness intervention can be a solution in the psychological care to pregnant women.*

Keywords: *Mindfulness, Anxiety, Depression, Pregnant Mother, Pregnancy*

ICASH-B034

INCREASING ADOLESCENTS' KNOWLEDGE AND ATTITUDES TOWARDS MENSTRUAL HYGIENE MANAGEMENT: A LITERATURE REVIEW

Widyaning Dara Utami *, Suharyo Hadisaputro, Tecky Afifah Santy Amartha

*Postgraduate Applied Science Program in Midwifery, Poltekkes Kemenkes Semarang,
Semarang, Indonesia*

*Corresponding author's email: widya.dara22@gmail.com

ABSTRACT

Background: Adolescence is critical period, because there are many changes in their body, especially reproductive organs such as menstruation in young women. Many regions in some countries consider information about menstruation to be taboo, even though good menstrual hygiene management can prevent adolescents from reproductive health problems. Actually, the reproductive problems have been a scourge among teenagers. The purpose of this study is to analyze the strengths and weaknesses between several current methods in the increasing knowledge and improving adolescent attitudes related to menstrual hygiene management. Therefore, the most significant methods can be used to provide information for young women.

Methods: The research articles were reviewed from electronic databases namely Science Direct, Google Scholar and other related websites with search results of 8460 publications presented in English and Indonesian with the keywords were "Adolescent Menstrual Hygiene Management" ranged from 2014 to February 2019. Furthermore, publications presented in English with the keywords "The Impact of Menstrual Hygiene to Decrease Vaginal Discharge" ranges from 2015 to February 2019.

Results: The efforts to provide information with the analyzed method showed a significant increase in the knowledge and the improvement among adolescent attitudes. However, based on the cone of concepts experience, the game method had a higher percentage of effectiveness than the others because this method could spur interactive discussion among players in the game. The better method would be more effective in increasing the knowledge and improvement of the attitude of adolescents.

Conclusion: A simple and no-cost technique for providing health education are needed. Therefore, modify the game as a method to improve knowledge and attitude of adolescents regarding menstrual hygiene management. Thus, the reproductive disorders among teenagers can be controlled and reduced.

Keywords: menstrual hygiene management, method of giving information, reproductive disorders

ICASH-B035

YOGA AS AN EFFECTIVE WAY TO REDUCE LOW BACK PAIN IN THIRD TRIMESTER PREGNANT WOMEN

Yeni Nurlita Seftia Dewi*, Diyah Fatmasari

Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: yeninsd@gmail.com

ABSTRACT

Background: *Pregnancy is the development and growth of the intra uterine fetus. Generally in the third trimester there are discomforts such as lower back pain. One method to minimize the problem is yoga. The purpose of this study was to analyze the effectiveness of yoga to decrease lower back pain.*

Methods: *The literature review was carried out by an electronic database of Science Direct, Google Scholar, NCBI (National Center for Biotechnology Information) to BNJ (Belitung Nursing Journal). Yoga for low back pain in third trimester pregnant women was used as a keyword in search strategies, publications range from 2004 to 2019.*

Results: *Several studies state that yoga could significantly reduce pain in pregnancy. Yoga could increase muscle strength, make women feel agile, changing the center of gravity, maintaining the elasticity and strength of the ligament as well as strengthening the shoulder muscles.*

Conclusion: *Yoga is effective to reduce back pain in third trimester pregnant women. Thus, it should be promoted among the pregnant women.*

Keywords: *Lower Back Pain, Pregnant Women, Third Trimester*

ICASH-B036

E E-PARTOGRAPH ADDIE MODEL AS LABOR LEARNING MODULE FOR MIDWIVES

Yulia Febrina* , Runjati

Midwifery Applied Master Study Program Applied Master Program Health, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: yuliafebrina25@gmail.com

ABSTRACT

Background: *In the health field, especially in the midwives, the use of partograph is required as new breakthrough in designing modifications of partograph. Based on technologies, it is possible to be reached by developed the digital form or e-modules. The E-module structural partograph is followed by the guide lines from Department of Education's National Indonesia: Self-Instruction, Self-Contained, Stand Alone, Adaptive and User Friendly. Whereas, the mobile learning is combining the digital partograph and workflows which will support the management in the workspace. Therefore, the aim of this study is to analyze the e-partograph method and mobile learning in the purpose to improve the monitoring and progress of labor.*

Methods: *The research method used a systematic literature review. This research articles were reviewed by searching national and international electronic journals, namely Google scholar and Science direct using the specific keywords. The electronic journals were collected, such as 4 journals on e-partograf and mobile learning which were published in the range between 2009-2019 by using Indonesian and English.*

Results: *Based on the journal collected, the evaluation results showed that e-partograph was feasible to be applied in the teaching and learning systems. In another study showed that digital applications could reduce some barriers that complicate partograph, moreover, paper tool has been shown to improve the outcome of labor, as well as they were not fully utilized. The study design of applications, M-Labor had very effective promise as a tool that could be used to improve the patient care.*

Conclusion *The use of e-partograph and M-Labor is very effective, easy to apply, and reduce the barriers to fill partographs.*

Keywords : *partograf, e- module, ADDIE, mobile learning partograph , midwife*

ICASH-B037

THE EFFECTIVENESS OF PERINEAL MASSAGE TO PERINEAL RUPTURE IN PRIMIGRAVIDA WITH NORMAL BIRTH

Yuliani Tangko*, Asrawaty, Ida Ariyanti

Masters in Applied Health, Ministry of Health Polytechnic Semarang, Semarang, Indonesia

*Corresponding author's email: yulianitangko1974@gmail.com

ABSTRACT

Background: World Health Organization (WHO) has estimated the increasing incidence of perineal rupture in maternal birth to 6,3 million by 2050. The perineal rupture can result in female organ dysfunction, bleeding or infection. One way to prevent perineal rupture is to do perineal massage to increase blood flow and elasticity of the perineal. The aim of this study was to analyze the effectiveness of perineal massage to the moment of spontaneous perineal rupture in primigravida normal birth.

Methods: Literature searching was done through database PubMed, Science Direct, and Google Scholar. The literature used was written in English and Indonesian. Articles in this study were published in 2014-2018. The keywords used were Massage, Rupture of the Perineal and Normal Primigravida birth.

Results: The Articles which appropriate with the criteria were 12 articles. From the 12 articles which had been obtained, eight articles discussing the benefits of perineal massage to prevent perineal rupture. One article discussed the comparison of perineal massage with kegel exercise, one article discussed the risk factors that affect the occurrence of perineal rupture, and one article discussed knowledge and the midwife's work period related to perineal massage and one article discussed perineal massage which did not have benefit for perineal rupture, but perineal massage was safe during birth processes.

Conclusion: Perineal massage effectively increase the elasticity of the perineal muscle, help the perineal tissue to relax, prevent perineal tears and facilitate the birth process. The evidence has show that the perineal message also resulted in no complications of the pregnancy and reduce the occurrence of fibrous surgeries.

Keywords: Perineal massage, Perineal rupture, Primigravida, Literature review

ICASH-B038

EFFECTIVENESS OF MASSAGE FOR WEIGHT GAIN OF PREMATURE INFANTS: A REVIEW

Zahrotun Nisa' Setyoputri*, Mardiyono Mardiyono

Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: nisaputri@gmail.com

ABSTRACT

Background: *Premature birth is the most common cause of neonatal mortality worldwide, and is the second leading cause of death of children under five. Premature birth also related to the less weight of the infant. The effort to gain weight of the infant could be done by infant massage. The aim of this paper was to analyze the effectiveness of infant massage to weight gaining premature infants.*

Methods: *Articles used in this study was taken from an electronic database through PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyzes) protocol to identify all relevant published literature using keywords. Initial screening was done through the inclusion of sample population, year of publication (10 years) and the accessibility of the paper.*

Result: *There were 5 articles studies have demonstrated no effect of infant massage on premature babies. The articles have shown that infant massage as non-medical therapies is very effective and safe as an intervention for weight gaining in a premature infant. It was also proven that the massage could improve the absorption of the food of the infant. In the other hand, it was also noted that the massage could give positive effect on the immune system.*

Conclusion: *Infant massage has shown a positive impact in weight gaining of premature infants as it increased the activity of the stomach. It is also proven that massage is more effective compared to other therapies such as mobilization and acupuncture.*

Keywords: *Infant massage, weight gain in LBW, preterm infant massage, the effect of infant massage, infant massage to weight gain*

ICASH-B039

EFFECT OF OXYTOCIN MASSAGE WITH LAVENDER AROMATHERAPY INCREASING BREAST MILK PRODUCTION

Irmastuti Lukitaning Alam

Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: irmalukita@gmail.com

ABSTRACT

Background: *Anxious feelings in postpartum mothers can reduce the hormone prolactin and oxytocin, thus the breast milk cannot be produced immediately after giving birth. Unfortunately, it is not common for the mothers to give formula milk to their baby. The massage oxytocin can increase the hormone oxytocin which calm the mothers, thus the milk can be produced. The anxiety of mothers can be reduced by the lavender aromatherapy. Therefore, this study was designed to analyze the effect of oxytocin massage with lavender aromatherapy on breast milk production in normal postpartum mothers.*

Methods: *This type of research is a quasi-experiment using a static group comparison.*

Results: *The results showed that there were differences in the amount of ASI excretion in the control group in the experimental group with p value 0.039.*

Conclusion: *It can be concluded that the aromatherapy massage can help the mother to be relax. Furthermore, the suggestions can be given during the implementation of oxytocin massage and administration of aromatherapy.*

Keywords: *Oxytocin Massage, Lavender Aromatherapy, Production Mother's Milk, Postpartum*

ICASH-B040

PROGRESSIVE MUSCLE RELAXATION IN PREGNANCY: A LITERATURE REVIEW

Rizqi D Pratiwi*, Raffiky P Sustamy, Sri Wahyuni

Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: rizqidianmst@gmail.com

ABSTRACT

Background : Based on statistical data globally, 10-15% of pregnant women experience anxiety and depression disorders with different levels. Progressive Muscle Relaxation (PMR) therapy is an alternative relaxation technique that can be used to reduce the stress level in pregnant women. The purpose of this study was to conduct a review of the benefits posed by PMR training for pregnant women.

Methods : The method used is a literature review by searching electronic database Science Direct, Pubmed and Google Scholar. Progressive Muscle Relaxation and pregnancy were used as keywords in searching strategy.

Result : A total of 9 from 29.714 of publication range from 2010 - 2019 and presented in English language and use Randomized Controlled Trials (RCTs) that are relevant to the PMR technique were include in this review. Studies show that many of the effects of PMR during pregnancy effectively reduce complaints of physical symptoms, reduce anxiety, improve sleep quality, improve quality of life, reduce low back pain, reduce hyperemesis gravidarum, prolonged pregnancy in preterm labor, control blood sugar and blood pressure and have a positive influence on the fetus and after birth.

Conclusion : Overall, studies that have been reviewed indicate that PMR is effectively giving more benefits and no adverse effects are reported.

Keywords: Relaxation technique, Progressive Muscle Relaxation, Pregnancy

ICASH-B041

STRATEGY INNOVATION IN PREVENTING TEENAGE PREGNANCY THROUGH BIDAN LEWU AND FAMILY ROLE

Natalia*, Riyanti

Poltekkes Kemenkes Palangka Raya, Palangka Raya, Indonesia

*Corresponding author's email: itutnatalia@gmail.com

ABSTRACT

Background: *Teenage pregnancy has the possibility to cause death in adolescents. Pregnancy at a young age includes the risk of premature birth, low birth weight (LBW), labor bleeding, which can increase maternal and infant mortality. Innovations to prevent teenage pregnancy at rural areas through Bidan Lewu and family roles is important. The purpose of this article is to examine the effectiveness of the role of Bidan Lewu and family roles to reduce teenage pregnancy rates.*

Methods: *The method used in this study is analytical metadata by using literature reviews with search for articles that are relevant to the topic of reducing teen pregnancy through Bidan Lewu and family roles.*

Results: *Of the 4 articles, it is noted that the teenage pregnancy rates increase due to wrong parenting, poor parental control, and more information about sex education from friends than family.*

Conclusion: *Bidan Lewu as community leaders in rural areas contributes to reduce the teenage pregnancy through Posyandu (health center) activities while the families deliver a significant role in reducing teen pregnancy rates by playing important roles and function of the family as the smallest unit in social life.*

Keywords: *Teenage pregnancy, Bidan Lewu, Family role*

ICASH-B042

FACTORS AFFECTING EARLY BREASTFEEDING INITIATION: A LITERATURE REVIEW

Rofian Widyanita*, Sri Rahayu

Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: rofianw30@gmail.com

ABSTRACT

Background: *The initiation of early breastfeeding process is important to prevent the disease and reduce infant mortality. The constraints in conducting early breastfeeding initiation have been noted as low maternal education, no motivation, lack of support from the closest person, support from health workers, and less promotion to do early initiation of breastfeeding. The purpose of this study is to evaluate the causes of the most influential in terms of the environment and health workers who are competent in the implementation of early breastfeeding initiation.*

Methods : *Journals were obtained using Google Scholar, Pubmed and other websites*

Results: *As many as 12 out of 17,800 publications from 2013 to 2018 related to early initiation of breastfeeding were analyzed for later to be concluded. From the sources that have been collected, there have been many factors that have led to the lack of early initiation of breastfeeding. From these factors that have been collected, the absence of the counselling regarding the importance of breastfeeding was the most important factors in the practice of early initiation of breast feeding. The limitation of the knowledge about early initiation and the health worker roles become two things needed from the counseling process.*

Conclusions: *The role of health workers and the initiation of the early breastfeeding process education is the most prominent factor in ensuring the initiation of early breastfeeding process.*

Keywords: *Breastfeeding, early initiation of breastfeeding, implementation initiation of breastfeeding*

ICASH-B043

HEALTH PROMOTION PRACTITIONER'S ROLES IN BEHAVIOR CHANGE COMMUNICATION STRATEGY: A SYSTEMATIC REVIEW

Anyta Ekaningsih*, Adang Bachtiar

Faculty of Public Health, Universitas Indonesia

ABSTRACT

Background: The highest cause of death globally is dominated by non-communicable diseases (73.4%) due to unhealthy behavior. Behavior Change Communication (BCC) in public health especially health promotion includes interventions that focus on communicating health messages to primary audiences (target groups) and secondary audiences (stakeholders and donors) through various media to influence behavior and advocate for policies. This study aims to get the concept and application of health promotion practitioner's roles in BCC.

Methods: Computer articles filter search by 2016-2019 period in database online ProQuest with the keywords "Health Promotion Practitioner" and "Behavior Change Communication", obtained 191 articles. Then based on the inclusion criteria the article was BCC research for non-communicable diseases, full text articles, then 24 articles potential to be reviewed.

Results: Based on the results of the review, it shows that BCC very effective in dealing with health problems caused unhealthy behavior such as non-communicable diseases. The role of health promotion practitioners becomes the central planner of behavior change communication strategies that perform comprehensive steps of identification, preliminary studies, determine the outcome of the objectives, analyze the situation and audiences, determine communication objectives, develop communication strategies, plan actions (tactic plan), and plan evaluation.

Conclusion: Communication behavior change is part of health promotion based on behavioral theory and research evidence for health behavior change.

Keywords: Health promotion practioner, Behavior change communication, Health behavior

ICASH-B044

ANALYSIS OF DURATION IN USING GADGETS ON EYE REFRACTION ERRORS AMONG UNDERGRADUATE STUDENTS IN FACULTY OF PUBLIC HEALTH UNIVERSITY OF INDONESIA (UI)

Athaya Aurelia^{*}, Adang Bachtiar

Faculty of Public Health, University of Indonesia, Depok, Indonesia

*Corresponding author's email: athaya.aurelia@ui.ac.id

ABSTRACT

Background: Eye refraction is a condition that happens when the eye form prevents the lights to focus directly on the retina so that the eyes can't see perfectly. Eye refraction errors are eye disorders that most commonly happen. In Indonesia, eye refraction errors have a very high prevalence which is 24.7%. This research aims to analyze the duration of using gadgets on eye refraction errors among UI Public Health undergraduate students.

Methods: This research used a cross-sectional study design on 70 Public Health undergraduate students in UI that use gadget. The sample of the research was selected with a quota sampling technique. The result from the questionnaire was analyzed by the IBM SPSS Statistics Version 23.

Results: The result shows that 47 (67.1%) students have eye refraction errors and 23 (32.9%) students did not have eye refraction errors. Eye refraction errors that happen to the students are varied, 44 (62.9%) students have myopia, 1 (1.4%) student has hyperopia, and 2 (2.9%) students have astigmatism. Gadget that is commonly used daily by the students is handphone with 68 (97.1%) students. The duration of using gadget by student is ≥ 6 hours with 49 (70%) students and < 6 hours with 21 (30%) students. The result was analyzed with chi square test within the duration of using gadget with the eye refraction disorder ($p=0.028$).

Conclusions: There is a relation between the duration of using gadget with the eye refraction errors among UI Public Health undergraduate students. Based on the research, it is recommended to educate about how important it is to estimate the duration of using gadget to prevent the eye refraction errors.

Keywords: Eye refraction errors, Duration, Gadget uses.

ICASH-B053

HIGH HUMIDITY AND LOW TEMPERATURE AS THE RISK FACTORS OF SCABIES IN ISLAMIC BOARDING SCHOOLS (PESANTREN) IN BANDUNG

Fatimah Azzakiyah*, Tjut Sutjighassani, Yani Triyani

Faculty of Medicine, Universitas Islam Bandung, Bandung, Indonesia

*Corresponding author's email: fazzakiyah@gmail.com (FA); cut.ghassani@gmail.com (TS); ytriyani87@gmail.com (YT)

ABSTRACT

Background: Scabies has been perceived as an infectious disease for a considerable length of time and happens around the world, with evaluations of up to 300 million cases yearly. As a third common skin disease in Indonesia highly found in West Java, environmental factors such high humidity and low temperature are the vital risk factors to the incidence of scabies. The highest incidence of scabies in Indonesia is centered on religious boarding schools' students ranged from 24.6% to 54.7% in 2013-2016. This paper explores the relationship between environmental factors of scabies to students in religious boarding school in Bandung as the capital city of West Java.

Methods: Cross-sectional study was done with sample calculation of estimation of proportion with absolute error (d) 5% and previous prevalence 22%. The division of the research area in the city of Bandung is based on the sampling cluster method by setting the location of the survey proportionally into four regions.

Results: There are 265 students from 8 religious boarding schools from 4 regions were examined and diagnosed with scabies from physical examination by referring to cardinal sign of scabies such as diffuse itching presents alongside either sore in two ordinary spots or irritation is available in another student. The data deduced that 41.9% students are diagnosed with scabies. Chi square analysis manifested that North Bandung has the highest incidence whereas West Bandung has the least (57.6% and 16.7% respectively) with p value <0.01 .

Conclusion: This value indicates that there is significant relationship between regions of Bandung to the reported case of scabies. North Bandung is surmised to have lower temperature and higher humidity compared to the other regions.

Keywords: Scabies, Humidity, Temperature, Religious Boarding Schools (Pesantren), Bandung.

ICASH-B055

PROVIDING SUPPLEMENTARY FOOD TO IMPROVE NUTRITION STATUS IN UNDERNOURISHED TODDLER: CASE STUDY IN KALAMPANGAN

Nora Adila*, Nila Susanti

Poltekkes Kemenkes Palangka Raya, Palangka Raya, Indonesia

*Corresponding author's email: noraadila10@gmail.com

ABSTRACT

Background: Good nutrition is a health foundation that affect children' immunity, susceptibility to disease, and physical and mental growth and development. Good nutrition will reduce pain, disability and death thus it is important to improve the quality of human resources. The purpose of this study was to improve the nutritional status of children with PMT (Providing of Supplementary Food).

Methods: Of 75 toddlers in Kalampangan Village, Sabangau District, Indonesia, there were 6 toddlers with low birth weight were selected using a systematic random sampling. The parents were given a set of questionnaires and counseling. The data then was analyzed using a descriptive method.

Results: The results of this study show that the average level of mothers' knowledge to their children's nutrition was at 68.22%, with the maximum at 82.92%. Before giving PMT the minimum weight in children under five is 7.6 Kg and the maximum is 10.7 Kg. However, after receiving the PMT 4 times, the minimum body weight in children under five increased to 8.0 kg, the maximum of 11.2 Kg which means there is an increase in body weight with an average of 0.28 Kg.

Conclusion: The study conclude that the Providing of Supplementary Food (PMT) is one of the components to improve the nutritional status in toddlers at the Kalampangan Village, Sabangau District, Indonesia.

Keywords: Toddler, Providing of Supplementary Food (PMT), Nutritional Status

ICASH-B056

CHARACTERISTICS OF HYPERTENSION PATIENTS IN COASTAL DISTRICT PERCUT SEI TUAN

Zuhrina Aidha*, Reni Agustina Harahap*, Delfriana Ayu*

Faculty of Public Health, State University of North Sumatera, Medan, Indonesia

*Corresponding author's email: zuhrinaaidha@uinsu.ac.id (ZA), reniagustina@uinsu.ac.id (RA), delfrianaayu@uinsu.ac.id (DA)

ABSTRACT

Background: Hypertension, the Silent Killer, is a non-communicable disease attacked people in developing countries, and known as one of the death causes in Indonesia. The prevalence of hypertension in North Sumatra Province reaches 6.7% of the population, or approximately more than 12 million people experienced this disease. This study aimed to describe the characteristics of the hypertensive respondents in coastal district of Percut Sei Tuan, Karo Regency, Indonesia.

Methods: This research is a descriptive study with a cross sectional approach. Thirty respondents were selected by a simple random sampling technique at the coastal area of Percut Sei Tuan, who happened to have the hypertension, from January to April 2019. A set of questionnaires was employed to record the respondents' characteristic data, recorded the information of age, sex, occupation, education and family history with hypertension.

Results: The results of this study found that, 50% of respondents received only their high school education, and 85% of respondents are housewives. This study noted the respondents aged between 40-60 years, and 60% of respondents had a family history of hypertension.

Conclusion: The descriptive data from this present study shows vary background and characteristics of the respondents with hypertension. The results may be useful for further study and intervention program at the coastal area of Indonesia.

Keywords: Hypertension, Characteristics, Percut Sei Tuan, Coastal area, Indonesia.

ICASH-B057

IDENTIFYING AUTISM SPECTRUM DISORDER (ASD) AND THE TREATMENTS TO REDUCE ITS SEVERITY: A SYSTEMATIC REVIEW

Cristinawati BR Haloho*, Melyana Nurul Widyawati, Oknalita Simbolon, Yovialist Putri R

Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: cristinasihaloho68@gmail.com

ABSTRACT

Background : *Mental illness of children begins to be focus as state of affair situation emerges. One of mental illness is Autism Spectrum Disorder (ASD) which becomes the world focus. ASD is one of mental illness with its specific characteristics. The characteristics are difficult to be identified because children who have autism seems normal. Unfortunately, there is no medicine to completely cure the ASD. However, there are some treatments which have been investigated to reduce ASD. The aim of this study was to identify and assess comorbidity of autism as well as therapies for autism.*

Methods: *This research used the literature review about autism. The data sources of this research were obtained from electronic database, such as Google Scholar, Elsevier and Research Gate. This research had some inclusive and exclusive criteria for screening the information.*

Results: *There were some programs to reduce ASD however this research has 3 investigated topics. They were music, medicine and massage therapy with different dependent variable for each therapy. This study gives information that children with ASD are children with problem language and limit of social interaction. Children with ASD have special characteristics; they are delayed in communication, focus on one object, sensitive in touch, voice and have repetitive behavior.*

Conclusion : *The right therapy should be used to take care the ASD. However the environment is very important for ASD, especially family's environment to support the ASD.*

Keywords : *Autism, Catatonia, Therapies for Autism*

ICASH-B058

WHAT HAPPENED IF WOMAN IN REPRODUCTION AGE ARE GIVEN BETA VULGARIS? A REVIEW

Hilma Triana*, Sunarto, Sri Sumarni, Maya Erisna

Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: trianahilma@gmail.com

ABSTRACT

Background: The anemia is more common in reproductive age women. According to the National Survey in Indonesia (Riset Kesehatan Dasar) in 2013, the prevalence of anemia in Indonesia was as high as 21.7%, where anemia in women was higher than of men. The haemoglobin levels in the body could be increased by improving the intake of food that containing iron sources namely beetroot (*Beta Vulgaris Rubra*), where beets contain iron as much as 0.79 mg and folate at 80 µg / 100 grams. This study aims to analyze the evidence-based that *Beta Vulgaris L* can increase hemoglobin levels for reproductive age women.

Methods: This study uses systematic reviews using PRISMA (Selected Reporting Items for Systematic Reviews & Meta-Analysis) to identify all literacy published using the keyword "Beetroot" for "Anemia", with literacy from those used from 2015-present, with publication literacy complete, and literacy selected based on inclusion and exclusion criteria.

Results: Total literacy found using the keyword "Beetroot" for "Anemia" as many as 396 found in English and Indonesian. As many as 24 articles has fulfilled the inclusion criteria. Beetroot or known as beets can increase Hb levels, where the result of the increase in difference between before and after beets is 0.8 to 2.4% gr / dL. Beetroot has a high iron content in it which can regenerate and reactivate red blood cells and supply fresh oxygen throughout the body. The content in beets helps make iron more available to the body, as a great builder of red blood cells. Beets can increase hemoglobin levels for reproductive age women and prevent anemia.

Conclusion: *Beta Vulgaris L* is recommended as a superfood and supplement for increasing iron deficiency and anemia, helps in promoting digestion and constipation, preventing osteoporosis, decreasing blood pressure, metabolic regulation, and enhancing the immune system, so that beets are highly recommended for consumption increase hemoglobin levels and prevent anemia for reproductive age women.

Keywords: Beetroot, Anemia, and Reproductive Age Women

ICASH-B060

ADOLESCENT PREGNANCY WITH INCIDENCE OF ABORTION

Nur Djanah*, Suherni, Ida Dwi Utari, Dela Ratna Sari

Department of midwifery Poltekkes Kemenkes Yogyakarta

*Corresponding author's e-mail: nurdjanah.fendi@gmail.com

ABSTRACT

Background: Abortion is one of the direct causes of maternal death. The highest incidence of abortion in Special Region of Yogyakarta (DIY) Province occurs in Gunungkidul Regency (22.90%). The incidence of abortion in Wonosari Gunungkidul General Hospital in 2016-2017 had increased while the number of adolescent pregnancies had decreased. The objective of the study was to identify the correlation between adolescent pregnancy and the incidence of abortion in General Hospital of Wonosari Regency in 2017.

Methods: The research design used was Case control. The population in this study was all pregnant women in General Hospital of Wonosari Regency in 2017. The total sample was 104 pregnant women which were assigned into two groups consisting of 52 cases and 52 controls that met the inclusion and exclusion criteria. Data obtained were taken from medical records of pregnant women from January to December in 2017. The sampling technique was simple random sampling. Data analysis used was Chi-Square.

Results: The result of the bivariate analysis showed that there was a correlation between adolescent pregnancy and abortion ($p=0.031$), there was a correlation between parity with the incidence of abortion ($p=0.010$), there was a correlation between job and abortion ($p=0.006$), there was no correlation between education level with the incidence of abortion ($p=0.324$).

Conclusion: According to the result of study, it could be concluded that there was a correlation between adolescent pregnancy, parity, and job with the incidence of abortion. However, there was no correlation between education level with the incidence of abortion

Keywords: Abortion, Adolescent Pregnancy, Parity, Education

ICASH-B062

THE DESCRIPTION OF TODDLERS FEEDING IN CLINICS NGEMPLAK I REGENCY OF SLEMAN YOGYAKARTA

Corry Ocvita Sari¹⁾, Ratih Kumorojati²⁾

Sekolah Tinggi Ilmu Kesehatan Jenderal Achmad Yani Yogyakarta

*Corresponding author's e-mail: corryocvita@gmail.com

ABSTRACT

Background: Parenting children forms attitudes and behavior of mothers or other caregivers in terms of proximity to the child, providing meals, take care, hygiene, and affection. This research aimed to identify the parenting styles among mothers in feeding their children aged 2-5 years in Ngemplak I Clinics, Sleman Regency, Yogyakarta

Methods: There were 91 mothers selected using an accidental sampling techniques from Ngemplak I Clinics, Sleman Regency, Yogyakarta. This research employed a set of questionnaires as a measurement tool in measuring the feeding scale in parenting. The data was then analyzed descriptively.

Result: This study showed that, of 91 mothers, the majority was identified with a type of permissive parenting style (42.9%). This research also found two other parenting styles; 24 respondents with authoritarian (26.4%) and 28 mothers with parenting democratic style (30.8%).

Conclusion: The examined parenting styles defined in this present study present a reference for further examination especially the feeding aspects, and the understanding of the feeding and toddlers' future, including the dining skills, foster cereal eating habits against this type of food, build the capabilities of selecting food for health, and educate good eating behavior.

Keyword: Parenting style, Feeding, Toddlers, Yogyakarta

ICASH-B064

**EFFECTIVENESS OF MASSAGE FOR INFANTS AND TODDLERS
WITH ACUTE RESPIRATORY INFECTION: A LITERATURE
REVIEW**

Asrawaty*, Endri Astuti, Dhita Aulia

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: asrawaty.agussalim@gmail.com

ABSTRACT

Background : *Acute Respiratory Infection (ARI) is a health problem that causes morbidity and mortality, especially in developing countries such as Indonesia. The World Health Organization (WHO) 2014 stated that every year, nearly 4 million people die because of ARI. Based on the data from the routine report of the ISPA 2017 in Indonesia, the incidence of ARI per 1,000 children was 20.54%. This infectious disease may affects to the all age groups, however the most vulnerable are infants, toddlers and elderly. The regular massage could change the brain waves, increase serotonin production as well as reduce adrenaline levels. The decreasing of adrenaline levels can increase the body endurance. The purpose of this study was to examine the effectiveness of massage for infants and children who have ARI.*

Methods : *Literature search was conducted through PubMed, Science Direct, and Google Scholar databases. Massage, Acute Respiratory Infection, Infants and Toddlers was used as keywords. The English and Indonesian literature were used as sources which were published from 2008-2019. Publication with Randomized Controlled Trial (RCT) were collected as source.*

Results: *In the 10 research articles which were published between 2008-2019, showed the significant results of massage on infant, toddler, and children against the ARI. The massage in infants and toddlers may lead to many positive changes in the baby. The benefits of massage for infants such as improve breathing, increased appetite, create a sense of comfort, increase concentration, improve digestion, improve sleep disorders, reduce stress, increase endurance, stimulate the brain nerves as well as smooth the circulatory system.*

conclusion: *Health workers can organize either seminar or training about infant massage to the general public especially parents.*

Key Words: *Massage, Acute Respiratory Infection, Infants And Toddlers*

ICASH-B067

**FACTORS AFFECTING THE NUTRITIONAL DEFICIENCY AND
POOR NUTRITION OCCURENCES IN TODDLERS AT THE
KUTABUMI COMMUNITY HEALTH CENTER, TANGERANG,
INDONESIA**

Febi Ratnasari^{1,*}, Isna Wanufika¹, Epa Yohanti^{2,*}

¹STIKes Yatsi Tangerang, ²Kutabumi Community Health Center

*Corresponding author's email: febiratnasari14@gmail.com (FR), epayohanti@gmail.com (EY)

ABSTRACT

Background: In 2016, Tangerang was known as the second-worst province with poor nutrition cases in Banten Province, noted to have 243 cases. Based on the 2-year nutritional status monitoring at the Kutabumi Community Health Center, there were found poor nutrition cases in 16 toddlers and nutritional deficiency cases in 133 toddlers, while in 2017, the nutritional deficiency cases happened to 144 toddlers and poor nutrition cases in 17 toddlers. This study aimed to identify the indirect factors affecting to the nutritional deficiency and poor nutrition occurrences in toddlers at the Kutabumi Community Health Center Work Area, Tangerang Regency, Indonesia.

Methods: The research used a quantitative research with correlational descriptive design and analytical method with a cross sectional approach. This research was carried out in March 2018. The samples are mothers of toddlers at the Kutabumi Community Health Center work area, Tangerang Regency. There were 198 mothers and their toddlers. The samples were processed by using Solvin formula and a purposive sampling technique. The data was obtained by using a questionnaire and a nutritional status measurement. The measurement was conducted by KIA using an anthropometric measurement standard to assess toddler nutritional status as stipulated by the decree of the Health Minister of the Republic of Indonesia no. 1995/MENKES/SK/XII/2010. The categorical data was analyzed using univariate and bivariate analyses and chi square test, while the numeric data was analyzed using a pearson correlation.

Results: There were relations of education, number of children, maternal's knowledge, family income and parenting to nutritional status with the following values: pvalue 0.042, pvalue 0.002, pvalue 0.000, pvalue 0.000, and pvalue 0.000. However, there were no relations between a mother's age and nutritional deficiency and poor nutrition occurrences with the result p value 0.056. The correlational value shows positive mark which means the older the mother, the better the children's nutrition.

Conclusion: Nurses' proactive roles, especially the community nurses are mainly needed in the society programs to provide a comprehensive guidance to the mothers of toddlers by maximizing education on nutritional food, additional food practices, and visiting toddlers who get poor nutrition or nutritional deficiency.

Keywords: Nutritional deficiency, Poor nutrition occurrences, Toddlers, Kutabumi Community Health Center, Tangerang

ICASH-B068

BENEFITS OF UMBILICAL CORD MILKING VERSUS DELAYED CORD CLAMPING OUTCOMES IN PRETERM INFANTS: A LITERATURE REVIEW

Varisa Nowangi Irianti*, Nur Khafidhoh

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: varisatrianti090595@gmail.com

ABSTRACT

Background: Delay Cord Clamping (DCC) in preterm infants can increase placenta blood transfusion, prevent Intraventricular Haemorrhage (IVH), Necrotizing Enterocolitis (NE), and good in hematological result. Several studies assessed that the practice of DCC inhibit resuscitation, thus researchers developed the practice of Umbilical Cord Milking (UCM) which was known to prevent IVH, NEC, but did not delay resuscitation. The aim of the study was to compare effect two strategies UCM versus DCC in enhancing placenta blood transfusion, haematological and growth parameters at 12 months of age in preterm infants.

Methods: A literature review was taken of PubMed, Science Direct and other sites. There were twenty-eight review from 2000 to 2019 over various countries. They were performed as systematic review of randomized controlled trials (RCT) in English.

Result: Result showed that the UCM reduce the risk of IVH especially in preterm premature infant, urine output over the first 24 hours was increased in the UCM group, mean blood pressure in the milking group achieved normotension within a brief period of time. The studies reported that there was no significant difference indicating necrotizing enterocolitis, hemoglobin and peak bilirubin increase although there was no occurrence of hyperbilirubinemia. In the development of 12 months of age there was no difference in hemoglobin, ferritin, and growth parameters of 12 months of age.

Conclusions: UCM and DCC is a very beneficial practice for premature infant. However, it need to be considered in the action for infant need immediate resuscitation. UCM is more effective and does not delay resuscitation in infant. Therefore, a study of UCM action in very premature infant regarding the risk IVH should be conducted.

Keywords: umbilical cord milking, delay cord clamping, placenta blood transfusion

ICASH-B069

USE OF HERBAL PLANTS FOR ACUTE RESPIRATORY INFECTION (ARI) IN TODDLERS: LITERATURE REVIEW

Yulvira Febriani*, Mardiyono

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author's email: virayulpira@gmail.com

ABSTRACT

Background: Acute Respiratory Infection (ARI) is the most common disease reported to health services and diseases that most often cause death in children under five years old. Traditional herbal medicine is an effective and relatively safe as an alternative medicine. The use of plants or plant extracts, used to treat various diseases and prevent diseases or increase the body's resistance to disease. The research aims to identify and analyze herbal plants that have efficacy to overcome acute respiratory infections in infants.

Method: Searching articles for this study was carried out by searching in the ScienceDirect, PubMed, and Google Scholar databases ranging from 2014 to 2019. The articles were Indonesian and English articles.

Results: There were 13 research articles selected and included in this study. Based on the articles, 14 plants species including *Allium aescalonicum* L., *Allium cepa* L., *Capsicum frutescens* L., *Costus speciosus* rhizome, *Echinacea purpurea*, *Eucalyptus globulus* Labill, *Eucalyptus* sp., *Hyptis suaveolens* (L.) Poit, *Melaleuca leucadendra* Linn, *Ocimum basilicum* L., *Piper crocatum*, *Plectranthus amboinicus* (L.) Spreng, *Tussilago farfara* L., and *Zingiber officinale* were effectively used to treat the symptoms of acute respiratory tract infections (ARI).

Conclusion: It is important to know the function of natural resources as an alternative medicine in the treatment of diseases. Therefore, the health workers can organize either seminar or training about the benefit of traditional medicine for children's health care.

Keyword: Herbal, Acute respiratory infection, Children under five years, Alternative medicine.

ICASH-B070

COMPARING THE EFFECTIVENESS GYM DISMENORE AND WARM WATER COMPRESS IN REDUCING MENSTRUAL PAIN

Siti Nadirah^{*}, Nur Imtihana Makmur, Runjati, Tecky Afifah Santy Amartha

Master of applied Science in Midwifery, Poltekkes Kemenkes Semarang, Indonesia

*Corresponding author's email: sitinadirah536@gmail.com

ABSTRACT

Background: *Dysmenorrhea can cause physical and psychological disorders. Non-pharmacological therapies such as gymnastics dysmenorrhea and warm compresses are effective in reducing the intensity of dysmenorrhea. The purpose of this study is to see the difference in the effectiveness of gymnastics dysmenorrhea and applying warm compresses to decrease in intensity dysmenorrhea in adolescent.*

Methods: *The study employed a quasy experiment. A total of 32 students who are experiencing pain from dysmenorrhea were selected using a random sampling techniques from the Senior High School (SMA) 1, Kediri city, in 2017. A Numeric Rating Scale (NRS) was used to assess the pain, scaled from 0 to 10, with following categories; No pain (1-3), Mild pain (4-6), Moderate pain (7-9), and Severe pain (10).*

Results: *From a Wilcoxon test, it is found that there is no significant difference between the effectiveness of gymnastics dysmenorrhea and warm compresses application to decrease the intensity of dysmenorrhea (p-value = 0.480).*

Conclusion: *This study concluded there was no significant difference between the effectiveness of dysmenorrhea gymnastics and warm water compresses in decreasing the intensity of dysmenorrhea*

Keywords: *Dysmenorrhea, Gymnastics dysmenorrhea, Warm compresse*

ICASH-B072

**THE CORRELATION BETWEEN MENSTRUAL CHARACTERISTICS
AND ANEMIA PREVALENCE IN MIDWIFERY STUDENTS OF
YOGYAKARTA**

Sepsiana Puspitasari*, Yuni Kusmiyati, Yuliasti Eka Purnamaningrum

Midwifery Department, Poltekkes Kemenkes Yogyakarta

*Corresponding author's email: *sepsianapuspita@gmail.com*

ABSTRACT

Background: *The SDG's set the nutritional improvements as the focus number two for all countries in the world. In Indonesia, anemia is still a problem for teenagers, especially women. Anemia in young women can increase the risk of bleeding during labor. Some factors that have the possibility of anemia incident are menstruation and nutritional status. This study aims to obtain relationship between menstrual characteristics and nutritional status with the prevalence of anemia in midwifery students at Midwifery Department Health Polytechnic Yogyakarta. **Methods:** This study used a cross sectional research design with interview method. There were 51 midwifery students selected from Midwifery Dormitory of Health Polytechnic of Yogyakarta. A set of questionnaires was employed to note the menstrual cycle, menstrual duration, blood loss during menstruation, and the mid-upper arm circumference. A digital hemoglobin measurement was used to define the anemia status. A Chi-Square test was used to define the correlation between the two observed parameters.*

Results: *The study shows there is no correlation between menstrual duration and anemia (p value = 0.487), menstrual cycle and anemia (p value = 0.651), blood loss during menstruation and anemia (p value = 0.273), and between the mid-upper arm circumference and anemia (p value = 0.611).*

Conclusion: *In this study, no correlation was found between the anemia prevalence and menstruation characteristics and the size of the mid-upper arm circumference.*

Keywords: *Anemia, Menstruation, Mid-upper arm circumference.*

ICASH-B073

COASTAL NUTRITION STATUS OF THE COUNTRY REVIEWED FROM SOCIAL CULTURE AND ISLAMIC PERSPECTIVE

Eliska, Nurhayati, Petti Siti Fatimah

Faculty of Public Health, State Islamic University of North Sumatra

*Corresponding author's e-mail: petti.siti.fatimah@gmail.com

ABSTRACT

Background: *Coastal communities are people who live and carry out socio-economic activities that depend on coastal resources, one of which is fishermen. The cultural identity of coastal communities as a whole is formed from the culture of fishermen who are directly related to the management of coastal and marine resources. Nutritional problems arise not only from health problems but also influenced by social culture and religion.*

Methods: *The design of this study uses quantitative research with a Cross Sectional. The sample is the total population selected by the purposive sampling method, which is 71 students from five schools. The instrument in this study used a questionnaire. Techniques and data processing are carried out by using a computer program to present data in the form of frequency and then the results are presented in the table.*

Results: *It is known that there is a relationship between nutritional status and socio-culture in coastal communities because the nutritional status of school-age children is below the threshold of 25.4%, and 12.7% is very thin. This happens because most parents of students have daily work as fishermen so that the lack of income from parents causes children's nutritional intake to decrease, while seen from the cultural tribes of the coastal community there are more Javanese tribes which result in low nutritional status due to lack of variety in food intake*

Keywords: *Nutritional status, Coastal area, Social culture, Islamic perspective.*

ICASH-C001

STORAGE STABILITY OF HIGH FIBER SNACK BAR

Ivana Aprilia Pratiwi, Varongsiri Kemsawasd, Thunnalin Winuprasith*

Institute of Nutrition, Mahidol University, Thailand

*Corresponding authors' e-mail: thunnalin.win@mahidol.ac.th

ABSTRACT

Background: Recently, there has been considerable interest in increasing dietary fiber content in food products because of inadequate dietary fiber consumption regarding to the daily recommended intake. To increase dietary fiber intake, dietary fiber fortified foods are recommended. This study was aimed to develop a high fiber snack bar (HFSB) using combination of Jerusalem artichoke powder (JAP) and low-fat desiccated coconut (LFDC) as sources of dietary fiber.

Method: The changes in physicochemical microbiological properties, and sensory acceptability were measured during storage at 35 °C and 45 °C for 12 weeks. Therefore, the shelf-life of the products was calculated by Q10 test.

Results: The HFSB had higher L* value (lightness) than control (C) due to addition of LFDC. Total dietary fiber of the HFSB was higher than those of the C formula approximately 3.7 times. The L*, a*, and b* values of both C and HFSB were statistically significant difference ($p < 0.05$) after storage. The total color different (ΔE) values of the HFSB were higher than those of the C formula due to inulin from JAP, which had participated in the Maillard reaction. During storage, the moisture content (MC) and water activity (a_w) of the HFSB was stable than those of the C due to the water holding capacity of the fiber used. The range a_w of the C and HFSB during storage were in range of 0.57 to 0.60 and 0.53 to 0.57, respectively, those ranges should stable against microbial growth. The higher of storage temperature would increase the TBARS values and decrease the pH ($p < 0.05$) of the C and HFSB due to the deterioration. For shelf-life calculation, the C and HFSB snack bar could be kept in metalized polyester at 30 °C for 11 weeks.

Conclusion: The JAP and LFDC exhibited great potential of using as fiber ingredients. Although, the JAP and LFDC influenced the physicochemical properties and sensory acceptability, the shelf-life of both C and HFSB was in the same period. Therefore, the further studies should be conducted to extend the shelf-life of the formulated snack bar.

Keywords: Snack bar, high fiber, Jerusalem artichoke, low-fat desiccated coconut, shelf-life

ICASH-C002

SYNTHESIS AND CHARACTERIZATION OF PROTEIN CONJUGATED CADMIUM TELLURIDE QUANTUM DOTS FOR BREAST CANCER TARGETING

Thi Bich Hien Tran^{1,2}, Obnithi Noppha³, Anunyaporn Phungsom⁴, Kanlaya Prapainop^{3,4*}

¹Faculty of Health, University of Angers, Angers 49045, France

²Faculty of Pharmacy, University of Medicine and Pharmacy at Ho Chi Minh city, Vietnam

³School of Materials Science and Innovation, Faculty of Science, Mahidol University, Bangkok 10400, Thailand

⁴Department of Biochemistry, Faculty of Science, Mahidol University, Bangkok 10400, Thailand

*Corresponding authors' e-mail: kanlaya.pra@mahidol.edu

ABSTRACT

Cadmium telluride (CdTe) quantum dots (QDs), are light-emitting nanoparticles with unique optical properties such as long-term photostability, high fluorescence intensity, size tunable fluorescence, broad absorption and narrow emission spectra. Moreover, the QDs synthesized by aqueous approach show a good biocompatibility and provide various surface functionalities in a simple single-step synthesis which attractive for medical applications. This research is aimed to develop a high fluorescence probe based on water-soluble CdTe-QDs for breast cancer targeting. To achieve the purpose, CdTe-QDs were synthesized in aqueous phase using mercaptosuccinic acid (MSA) as a capping agent (CdTe-MSA). The surface of nanoparticles were further modified with bovine serum albumin (BSA) (CdTe-BSA) via carbodiimide crosslink reaction. The synthesis conditions and purifications were varied to achieve high fluorescence and protein conjugation. The results showed that the CdTe-MSA QDs has excitation wavelength at 350 nm and emission wavelength at 548 nm with quantum yield 14.65 ± 0.35 percent compared to rhodamine 6G in water. The obtained CdTe-BSA was demonstrated by red-shift fluorescence spectra. In addition, biocompatibility and targeting efficiency were evaluated with human breast cancer cell line (MCF-7 cells). The results showed non-cytotoxicity upon 2 hour incubations in the concentration range between 0-200 nM. The targeting efficiency was evaluated by fluorescence microscopy and flow cytometry techniques. Even though, the results revealed the potential use of the QDs as a fluorescence probe for breast cancer cell targeting, the specificity of the QDs should also be evaluated and could be easily improved using this protocol with other specific biomolecules such as aptamers or antibodies.

Keywords: quantum dots, CdTe, breast cancer

ICASH-C003

RELATIONSHIP OF KNOWLEDGE AND ATTITUDE OF ANEMIA WITH ORAL IRON CONSUMPTION AMONG ADOLESCENT

Silfia Nuzulus Sa'idah*, Yunaenah Setiawati, Ahmad Wibisono

*Corresponding author's email: silfianuzulussaidah@gmail.com

ABSTRACT

Anaemia is one of the common nutritional problems in adolescents. Anaemia is a condition in which the hemoglobin (Hb) content is lower than its standard ranges, and the most general symptoms are body weakness, fatigue, lack of energy, dizziness, and pallor. This research used a cross-sectional design to 90 female adolescents at a junior high school in Semarang and the samples were taken by using a consecutive sampling technique. The hemoglobin level was measured by cyanmethemoglobin method, body weight was scaled by a digital weightscale, and body height was measured by a microtome. Protein, iron, vitamin C, vitamin B12, and folic were obtained by using a semi food frequency questionnaire method and calculated by using a Nutrisoft application. A chi-square test was carried out for the bivariate analysis and a multivariate logistic regression test used for the analysis. The result showed that 1% of the samples was highly wasted, 3.3% was wasting, and 73.3% was normal, 15.6% was overweight, 6.7 was obese and 26.7% was having anaemia. The average of hemoglobin content was $12,6 \pm 1,29$ SD and the z-score average score based on BMI/A was 0.97 ± 1.18 SD. The iron intake, 63%, was low, while the protein, vitamin C, vitamin B12 and folic intakes were in sufficient categories. The bivariate analysis showed that there was no significant relationship between nutritional status and anemia on female adolescents ($p=0.289$). There was a relation between iron intakes ($p=0.000$) and folic intakes ($p=0.006$) with anaemia. The logistic regression testing variable showed that the iron intakes relating to anaemia ($p<0.05$) 29 SD and the z-score average score based on BMI/A was $0.97 \pm 1,18$ SD. The iron intake was low, 63.3%, while the protein, vitamin C, vitamin B12 and folic intakes were enough.

Conclusion : There was no significant relationship between nutritional status and anemia occurrences on female adolescents.

Keywords: anaemia, adolescents, nutritional status, food intakes

ICASH-C004

QUALITATIVE STUDY : THE EXPERIENCE OF SWITCHING FROM SMOKING TOBACCO CIGARETTE TO SMOKING ELECTRONIC CIGARETTE IN KARAWACI DISTRICT IN 2018

Ayu Pratiwi*, Desi Sintia

STIKes YATSI Tangerang 15113, Indonesia

*Corresponding authors' e-mail: ayu06pratiwi@gmail.com

ABSTRACT

The smoking prevalence is considerably high in all Indonesian society, especially in the male population, starting from kids, teenagers and adults. The smoking tendency keeps increasing yearly not only around men but also around women, and this has worried all of us. Generally, a man starts to smoke at an early age and does not realize the risk of cigarette hazardous addictive substance. We all know that the trend of smoking age increases on teenagers, especially at the ages ranging from 10-14 years old and 15-19 years old. The aim of this research is to figure out the experience of switching from smoking tobacco cigarette to smoking electronic cigarette. This research applied a qualitative research method with the descriptive phenomenological approach. The participants of this research consisted of five people. The data samplings were carried out through a thorough interview based on the research goal. The data analysis of the interview results were analyzed by using Colaizzi method. The findings of the research showed 3 topics with several categories, among others: 1) Factors that influence the smokers' switch are social factor, community factor, psychology factor, and genetical factor. 2) The variance of the content of the electronic cigarette which has many flavors, and 3) The disadvantage of the electronic cigarette is its using problem. The recommendation of the research result is proposed to the community nurses or families that are possibly related directly to the participants.

Keywords: *The experience of switching from tobacco cigarette to electronic cigarette*

ICASH-C005

CORRELATION OF AGE, SEX, HEREDITY SMOKING HABBIT, OBESITY, AND SALT CONSUMPTION TOWARDS HYPERTENSION LEVEL IN CIREBON, INDONESIA

Alif Hamzah*, Uswatun Khasanah, Dini Norviatin

Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding authors' e-mail: hamzah.alif33@gmail.com

ABSTRACT

Background: Hypertension is one of the most global killer diseases that causes death. The World Health Organization estimated around 1.5 billion people in the world will be diagnosed with hypertension every year. The increasing incidences of hypertension in the world may be affected by several predictors including age, sex-linked, heredity, smoking habit, obesity, and salt consumption. This study has objective to examine those predictors to hypertension grade.

Methods: This research was used observational analytic method with cross-sectional study. This study involved 136 respondents who came to Kalijaga Permai Public Health Center, Cirebon City. The variables were measured by microtoise, sphygmomanometer, stethoscope, scales, and questionnaires. Spearman correlation test and logistic regression test was analyzed for this study.

Results: 59.9% of respondents were in hypertension grade 1 and 54% of respondents were in high risk age. The bivariate results revealed that age, sex-linked, heredity, and salt consumption were statistically correlated with hypertension grade ($p=0.001$). However, smoking habit and obesity were not statistically correlated. Multivariate analysis found that those who add extra salt were 3.3 times more likely to have hypertension grade 2 and those in high risk age were 3.1 more likely to have hypertension grade 2 as well. Compared with female and those who have negative heredity, male and positive heredity were 2.7 times more likely to have hypertension grade 2.

Conclusions: Salt consumption, age, sex-linked, heredity was significantly correlated with hypertension grade. Salt consumption was a risk factors which has the highest impact. Public health center should educate people about the recommendation of daily salt intake to prevent the excessive intake that may affect hypertension.

Keywords: hypertension, smoking habit, obesity, salt consumption, age, sex-linked, heredity

ICASH-C007

IN VITRO INHIBITORY ACTIVITY OF DAYAK ONION (*Eleutherine bulbosa* Mill.) ESSENTIAL OIL AGAINST *Klebsiella pneumoniae*

Marwan Hermawan* Amanah Amanah Nurbaiti Nurbaiti****

Faculty of medicine, Universitas Swadaya Gunung Jati, Cirebon, Indonesia

*Corresponding author email: Hermawanmarwan94@gmail.com

ABSTRACT

Background: *The cases of Klebsiella pneumoniae infection in West Java province is still high. Klebsiella pneumoniae bacterium can produce the extended spectrum beta lactamase enzyme leading to antibiotics resistant, so it is important to look for natural and inexpensive antibiotic alternatives; one of which is Dayak onion plant (Eleutherine bulbosa Mill). The content found in Dayak onion is believed to inhibit the growth of Klebsiella pneumoniae bacteria. This study aims to determine the effectiveness of Dayak onion essential oil on the growth of Klebsiella pneumoniae bacteria.*

Methods: *This was an experimental study with a post-test control group design using the culture of Klebsiella pneumoniae on Muller-Hinton agar in 7 groups. Groups 1 to 5 (K1 to K5) were given Dayak Onion essential oil solution in 10% DMSO solvent with concentrations of 3.125%, 6.25%, 12.5%, 25%, and 50%. Group 6 (K6) was positive control (+) with 5 µg Levofloxacin, and Group 7 (K7) was Negative (-) with 10% DMSO. The treatment results were measured by the diameter of the host zone and the collected data were analyzed using One-way ANOVA with appropriate post hoc analysis.*

Results: *The results showed that there are differences in each group to inhibit the growth of bacteria ($p < 0.005$). K1 are higher than K2, K3, K4, K5, and K7 with increasing concentrations showed greater inhibition. Levofloxacin (K6) showed the highest inhibitory power.*

Conclusion: *In this study, all treatment groups show different inhibitory power. Administering 50% Dayak onion essential oil and 5 µg levofloxacin shows a strong inhibition of bacterial growth. This showed the potential of Dayak onion essential oil to be used as an adjuvant therapy for antibacterial Klebsiella pneumoniae.*

Keywords: *Klebsiella pneumoniae, Dayak onion essential oil, bacterial inhibition*

ICASH-C008

CRITICS ON POLICY OF SOY-BASED INFANT FORMULA IN INDONESIA: COMPARING TO AUSTRALIA AND NEW ZEALAND FOOD STANDARDS

Agnescia Clarissa Sera*

Nutrition Department, Health Polytechnic of Palangka Raya (Poltekkes Kemenkes Palangka Raya),
George Obos 32, Palangka Raya 73112, Central Borneo, Indonesia

*Corresponding author's email: agnesciasera@gmail.com

ABSTRACT

Background: World Health Organization (WHO) suggests breastmilk as a perfect food for newborn and recommends up to 6 months of age. However, some women have problem to produce breastmilk during breastfeeding. In order to keep baby gets sufficient nutritious as same as breastmilk, they give the baby formula milk that made from soy. The safety of using formula milk based on soy in infant is still debating. It is important to evaluating the policy that allow the using of formula milk based on soy. This study aims to compare the policy of using the soy-based infant formula in Indonesia with food policy of using the soy-based infant formula in Australia and New Zealand.

Methods: This study was analytical study based on researcher perspective. By comparing the Indonesia food policy of regulation infant milk formula with Australia and New Zealand food standards code. The results described in narrative.

Results: The soy-based infant formula in Australia and New Zealand contained higher protein than soy-based infant formula in Indonesia. The higher protein in soy-based infant formula can caused negative impact to the baby such as diarrhea. The soy-based infant formula also contained aluminium that can caused problem to the newborn and infant if the amount was not appropriate. However, the regulation of maximum amount of aluminium in soy-based infant formula was not mentioned in Indonesia food policy.

Conclusion: The soy-based infant formula in Indonesia contained lower protein than in Australia and New Zealand. The lower protein can give lower impact to the newborn and infant. However, the Indonesia government should consider to arrange the maximum amount of aluminium level in soy-based infant formula. It is important to create food policy that not only beneficial to people but also safety.

Keywords: soy-based infant formula, food policy, food standards, Indonesia

ICASH-C009

**EFFECTS OF EXPERIENCE SHARING ON ANXIETY AMONG
WOMEN WITH LOW BIRTH WEIGHT BABIES**

Ida Ariyanti*, Nur Khafidoh, Sri Rahayu

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author email: idaariyanti70@yahoo.co.id

ABSTRACT

Background: *Low Birth Weight (LBW) is one of the issues that cause morbidity and mortality during the neonatal period in Indonesia. One common problem found among babies with LBW is unstable body temperature. Data from Basic Health Research by the Ministry of Health in 2013 showed that LBW prevalence was at 10.2 %. It was lower than the 11.1% figure of 2007, but is still of grave concern as most of those babies with LBW <2000 gram did not survive neonatal period. Data from Demographic and Health Survey by the National Family Planning Coordinating Agency in 2012 showed Neonatal Mortality Rate (NMR) in Indonesia was still high, at 32 per 1000 live births. This figure is still a long way from the Millennium Development Goals (MDGs) target of 23 per 1000 live births. Data from RSUD Tugurejo in Semarang in 2016 revealed that 122 LBW babies were treated with 11 of them deceased, or (52%) of 21 infants who died there. This figure points to the fact that LWB poses high risk to infants' survival.*

Method: *This research aims to describe anxiety among women with LBW babies before and after experience sharing. It analyzes different levels of anxiety among those women before and after experience sharing. It is a quasi-experimental research using the one group pretest-posttest design without control.*

Respondents were women having LWB babies at RSUD Tugurejo in Semarang. There were 34 respondents whose anxiety before and after experience sharing was measured using a questionnaire module. Normality test was performed using the Saphiro-Wilk test, which was followed by sample difference test using the Wilcoxon test, as data were not normally distributed with a 95% ($\alpha=0.05$) confidence level.

Results: *Results from this research show significant differences in anxiety before and after experience sharing, with Wilcoxon test result of $0.001 > p$ value 0.005 .*

Conclusion: *This research has proven the significant effect of experience sharing on anxiety among women with LBW babies. It is advised that family members and those close to women with LBW babies provide support as to ease anxiety experienced by them. Health care professionals should also pay more attention to any symptom of anxiety. There is also the need for a module on how to take care of LBW babies.*

Keywords: *Experience sharing, Anxiety, Women with LBW babies*



ICASH-C010

EFFECTS OF SOY MILK ADMINISTRATION ON BLOOD PRESSURE, LDL LEVEL AND PROTEIN IN URINE OF WOMEN WITH GESTATIONAL HYPERTENSION

Nur Khafidhoh*, Ida Ariyanti, Triana Sri Hardjanti

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

*Corresponding author email: nurafidh@yahoo.com

ABSTRACT

Background: Maternal Mortality Rate (MMR) in was 22 cases, 29 cases, and 33 cases in 2012, 2013, and 2014, respectively. The major cause of maternal mortality in Semarang in 2015 was eclampsia (48.48 %). Women with preeclampsia experience increased Very Low Density Lipoprotein (VLDL) that results in endothelial damage and protein in urine. Soy milk helps to lower blood pressure and LDL because it contains isoflavone. This research aims to find out if soy milk and avocado do lower blood pressure, LDL level, and protein in urine of women with gestational hypertension.

Methods: It employed the pretest-posttest experimental design without control. Respondents were pregnant women who were diagnosed with hypertension. They had to undergo 14 days of treatment. Data collected were then analyzed using the bivariate method with paired t-test.

Results: Results showed no differences in systole and diastole blood pressures and LDL before and after treatment. However, significant differences were found for protein in urine before and after treatment.

Conclusion: Pregnant women are expected to pay regular visits to health care centers and consume soy products to help maintain proper levels of protein in urine.

Keywords: Systole, Diastole, LDL, Protein in urine, Gestational hypertension

ICASH-C011

EFFECTS OF ROLLING MASSAGE AND ST-18 ACUPRESSURE ON BREAST MILK PRODUCTION AND REDUCED FUNDAL HEIGHT

Sri Rahayu^{*}, Umaroh

Master of Applied Science in Midwifery, Poltekkes Kemenkes Semarang, Semarang, Indonesia

^{*}Corresponding author email: yayoek.1974@gmail.com

ABSTRACT

Background: Breast milk production and secretion are affected by the prolactin reflex and let-down reflex. Some of the methods to increase breast milk production are rolling massage and ST-18 acupressure. This study aims to determine the effect of rolling massage and ST-18 acupressure on breast milk production and reduced fundal height of postpartum women.

Methods: This is an experimental study. The study design is Pretest-Posttest Randomized Control Group. The population was all postpartum women in the Community Health Center of Semarang municipality, of whom 16 were assigned as respondents in the treatment group and the other 16 were assigned as respondents in the control group. These respondents were collected using cluster random sampling. After obtaining consent from the respondents, the researchers began to make the first measurements (pretest) on the fundal height and breast milk production in the treatment group and the control group. These measurements were then repeated (for posttest) after 3 days of treatment. Data were then analyzed using Independent t-test and Mann-Whitney test.

Results: Characteristics of respondents in both groups showed that most of respondents were aged 27.9 years, primiparous and had good nutritional status. Average breast milk production increase was assessed from infant weight gain before and after treatment, which showed an increase from 3117.8 grams to 3254 grams. It was found that there was a difference in breast milk production between the treatment group and the control group with p value of 0.0001. It was also found that there was no difference in the decrease in fundal height in the two groups (p value=3.91) However, the decrease in fundal height in the treatment group was faster than that of the control group, which was 3.91 cm.

Conclusion: Midwives need to provide midwifery care to postpartum women in a holistic and comprehensive manner, which may include rolling massage and ST-18 acupressure.

Keywords: Rolling Massage, Acupressure, Breast Milk Production, Fundal Height



ICASH-C012

ASSOCIATION BETWEEN BODY COMPOSITION AND HYPERTENSION AMONG ADULT POPULATION OF BANGLADESH

Rezwana Sultana^{1,2}, Mohammad Hayatun Nabi¹, Shaikh Abdus Salam¹, Mohammad Delwer Hossain Hawlader^{1,*}

¹Department of Public Health, North South University, Dhaka, Bangladesh

²VLCC Healthcare, Dhaka, Bangladesh

*Corresponding author's email: mohammad.hawlader@northsouth.edu

ABSTRACT

Introduction: Hypertension is identified as ranked 3rd in global disease burden and its prevalence is projected to be increased from 26.0 % in 2000 to 29.2 % by 2025 globally. According to the WHO, hypertension has become a significant health concern in the Asian region affecting more than 35 % of the adult population. Many studies have found several risk factors but no one has examined the relationship with body composition. That's why, aim of this study was to identify the association between body composition and hypertension among Bangladeshi adult population.

Methods: A case-control study was conducted including 150 hypertensive cases and similar number of controls in a healthcare center from April 2018 to March 2019 in Dhaka city, Bangladesh. Samples were selected purposively. Pretested questionnaires were implemented by face to face interview and body composition was measured by BCA (Body Composition Analyzer) machine.

Results: Our study found, among socio demographic factors, age ($p < 0.001$) and education ($p = 0.013$) were statistically significant with hypertension. Among body composition parameters, weight ($p < 0.001$), height ($p < 0.001$), muscle mass ($p = 0.004$), body water ($p < 0.001$), fat free mass ($p < 0.001$), Basal Metabolic Rate ($p < 0.001$), waist hip ratio ($p < 0.001$), fat ($p < 0.001$), and body fat percentage ($p < 0.001$) were significantly associated with hypertension. After adjustment by age, sex, education, occupation, religion, residence and monthly family income, all of those variables still remained significant.

Conclusion: Hypertension is highly associated with body composition. Adult population should be cautious to maintain their body composition by doing regular physical exercise, healthy dietary practice and decent life style.

Key words: Body composition, hypertension, adult population, Bangladesh

ICASH-C013

TODDLER ACCEPTANCE ON VEGETABLE SIDE DISH MODIFICATION AT CINTA DAYCARE PALANGKA RAYA

Restiana Kristin, Dhini

Poltekkes Kemenkes Palangka Raya (Palangka Raya Health Polytechnic), Central
Kalimantan, Indonesia

*Corresponding author email: dinpraya@gmail.com

ABSTRACT

Background: Pre-school age children experience a significant biological, cognitive, and spiritual growth and development, which are influenced by their nutritional intake, genetics, physical activities, environmental stress and parenting patterns. Food provided in childcare center should aim to meet adequate nutrition intake, both quality and quantity to maintain children's health. Previous studies show toddler at Cinta Daycare Palangka Raya did not really like vegetable side dish. Therefore, its modification is expected to increase children's acceptability.

Aim: To analyse the effect of vegetable side modification on toddler's acceptance at Cinta Daycare Palangka Raya.

Methods: This study employed quasi experiment with one group pretest and posttest design towards 16 children aged 1-5 years. Comstock method was used to measure vegetable side dish leftovers. Data was analysed using Kruskal-Wallis test.

Result: The highest acceptability rate was steamed schotel tofu (75%), followed by satay tempeh (31.25%), tempe bacem (18.75%) and tempeh balls (12.5%). Toddlers did not like perkedel tempeh.

Conclusion: There was a significant effect on modification of steamed s
chotel tofu on toddlers acceptance at Cinta Daycare Palangka Raya ($p=0.00$)

Keywords: vegetable side dish modification, food acceptance, food leftover, daycare

ICASH-C014

FACTORS AFFECTING EXCLUSIVE BREASTFEEDING IN RURAL AREA OF YOGYAKARTA

Heni Puji Wahyuningsih *, Diana Oktaviastuti Darmasetya

Midwifery Department, Poltekkes Kemenkes Yogyakarta

*Corresponding author's email: henipujw@gmail.com

ABSTRACT

Background: Exclusive breastfeeding coverage in Indonesia had not met the Millenium Development Goals (MDG's). Indonesian exclusive breastfeeding coverage of 54.3% while Gunungkidul regency is one of the rural areas of Yogyakarta which had the lowest rate of exclusive breastfeeding coverage in Yogyakarta, only 58.52%. The objectives of this study were to assess the affecting factors to provide exclusive breastfeeding in the rural area of the Public Health Center, Yogyakarta, Indonesia.

Methods: This study used an observational analytic approach with case-control design, and the data was analyzed statistically using Chi-Square test and logistic regression. There were 116 mothers who had babies aged 6 to 12 months have been involved in this study. The respondents were equally divided to two groups; (1) control group, and (2) case groups who received the exclusive breastfeeding support from their family. A set of questionnaires was employed, focused on family support about exclusive breastfeeding.

Results: The study found the significantly affecting factors to the exclusive breastfeeding practice were (1) family support ($p = 0,002$, $OR = 8,089$ 95% $CI = 1,735-37,714$), (2) employment status ($p = 0,008$, $OR = 2,769$, 95% $CI = 1,288- 5,953$), and (3) the peers' support ($p = 0,023$, $OR = 4,291$, 95% $CI = 1,130-16,299$). The results of multivariate analysis showed that the family support was the most dominant factor in association with exclusive breastfeeding ($p = 0,019$, $OR = 6,833$, 95% $CI = 1,363-34,242$). A non-working mothers and mothers who received better family support may have higher possibility to provide exclusive breastfeeding for their children.

Conclusion: From the result, it is suggested that the success of exclusive breastfeeding practices in rural area of Yogyakarta may be affected by employment status, and the supports from family members and the peers.

Keywords: Exclusive breastfeeding, Family, Peer, Support, Yogyakarta.

ICASH-C015

CHARACTERISTICS OF STUNTING IN TODDLERS AGED 12-59 MONTHS IN KULON PROGO, YOGYAKARTA, INDONESIA

Yuliasti Eka Purnamaningrum^{1,*}, Margono¹, Regita Cita Puspitasari^{1,*}, Riska Rahmawati¹, Risma Fitria Dianasari¹, Izzudien Sobri²

¹⁾ Midwifery Department Health Polytechnic Ministry of Health in Yogyakarta

²⁾ Nutrition Department Health Polytechnic Ministry of Health in Yogyakarta

*Corresponding author's email: yuliasti.eka.purnamaningrum@gmail.com (YEP), regitacita26@gmail.com (RCP)

ABSTRACT

Introduction: Stunting is a health problem that is caused due to not optimal health conditions and nutritional intake of children during the growth process. Kulon Progo is one of the districts in DIY that is registered in the program of 100 priority districts for stunting intervention. This study aims to determine the characteristic of the stunted toddlers aged 12-59 months in Kulon Progo, Yogyakarta, Indonesia

Method: This study used a cross sectional design. This study involved 84 families with stunting children aged 12-59 months. Data was obtained from interviews and questionnaires, and were then analyzed using the descriptive analysis.

Results: The results show that the stunted children mostly live with families who smoke (61.90%), were born with gestational age > 37 weeks (85.71%) and weight less than 2500 gr (86, 90%). The majority of the stunted toddlers were male (52.38%), and weaned at less than 24 months (53.57%).

Conclusion: This study presents the characteristics of stunted toddlers aged 12-59 months in Kulon Progo, Yogyakarta, Indonesia. The results of this study are expected to be an important input to provide further intervention in improving the nutritional intake for the stunted children.

Keywords: Stunting, Toddlers, Characteristics, Yogyakarta.



ICASH-C016

ASSOCIATION OF HEALTH WORKER ROLES AND FAMILY SUPPORT TO ANXIETY AND BREASTMILK SUFFICIENCY IN MOTHERS WITH LOW BIRTH WEIGHT INFANTS

Munica Rita Hernayanti*, Yuliasti Eka Purnamaningrum, Dwiana Estiwidani, Denny Iswara*

Department of Midwifery Poltekkes Kemenkes Yogyakarta

*Corresponding author's e-mail: municaadriana@gmail.com

ABSTRACT

Background: *Low Birth Weight (LBW) is the largest contributor to infant mortality during perinatal period. Yogyakarta is a province in Indonesia with the second highest LBW incidence, reached to 12.1%. One effort of LBW is to maintain exclusive breastfeeding. Stress experienced by the mother affects the smooth breastfeeding process and breast milk sufficiency. This research is aimed to identify the relation of support of health officer and family with the anxiety and sufficiency of breast milk to mothers who have LBW.*

Methods: *This research is a cross-sectional study. The respondents of the study were mothers who had LBW infants treated in the hospital's perinatal chamber. The data was obtained using a set of questionnaires and observation sheets.*

Results: *The results shows that the majority of mothers were in healthy reproductive age (20-35 years), upper secondary education, unemployment, low socioeconomic classes and sufficient breastfeeding. Most mothers received family support from husbands and other family members and do not experience physical or psychological anxiety.*

Conclusion: *From this study, it is noted that there is no relationship between family support with maternal physical and psychological anxiety. However, the study found there is a relationship between support of health workers and families with breastfeeding adequacy. It is suggested that the Standard Operating Procedures (SOP) and leaflet assistance for mothers who have LBW in hospital perinatal room may play important roles in handling mothers' anxiety and breastmilk sufficiency.*

Keywords: *Support, Maternal anxiety, Breastmilk sufficiency.*

ICASH-C017

RISK FACTORS OF LATERAL EPICONDYLITIS AMONG THE PATIENTS ATTENDED IN A SPECIALIZED HOSPITAL IN BANGLADESH: A HOSPITAL BASED CASE-CONTROL STUDY

Zannatul Arafat¹, Gias Uddin Ahsan², Mohammad Delwer Hossain Hawlader¹, Mohammad Hayatun Nabi^{1*}

¹Department of Public Health, North South University, Dhaka, Bangladesh

²School of Health and Life Sciences, North South University, Dhaka, Bangladesh

* Corresponding author's email: mohammad.nabi@northsouth.edu

ABSTRACT

Background: Lateral Epicondylitis, also known as Tennis Elbow is the most common overuse syndrome in the elbow that involves the extensor muscles of the forearm. Hence, we explored the risk factors of lateral epicondylitis.

Methods: A hospital based case- control study was carried out in a specialized hospital. The study included 29 cases over 116 controls (1:4) and conducted over the period from March 2018 to February 2019. Data were collected by a structured questionnaire. Crude odds ratios (OR), adjusted odds ratio (AOR) and 95% confidence intervals (CI) were estimated. Stepwise logistic regression model was used to identify independent predictors.

Results: Out of 29 cases, 13 (44.8%) were male and 16 (55.2%) were female. Among the controls 43 (37.1%) were male and 73 (62.9%) were female. The mean age of the case group was 44.50 (± 12.75) years and control group was 41.25 (± 11.15). Varied degrees of associations between the occupational factors and lateral epicondylitis was found. Force pull was significantly associated with lateral epicondylitis (AOR: 1.39; 95% CI: 1.23-1.57). Swing hammer and cutting wood were also significantly associated with lateral epicondylitis outcome (AOR: 1.38; 95% CI: 1.22-1.57) and (AOR: 1.32; 95% CI: 1.17-1.49).

Conclusion: Force pull, swing hammer and cutting wood were significantly associated with lateral epicondylitis.

Keywords: Lateral, Epicondylitis, Tennis, Elbow, Bangladesh.

ICASH-C018

SMOKERS' EXPERIENCES IN QUITTING SMOKING HABIT

Silvia Intan Suri*, Hema Malini

Health Science Collage Yarsi West Sumatera, Indonesia

*Corresponding author's email: intan.yumnamazaya@gmail.com

ABSTRACT

Background: Even though some smokers proved that smoking habit can be stopped at one point of time, not all smokers are successful in dropping the habit for a long period of time. There was still a small number of research done to investigate how the former smokers can be successful in ceasing the habit. This research aims to explore in depth former smokers' psychological experiences in stopping the smoking habit.

Methods: This research uses qualitative methods with the phenomenological approach, focused on the success story to stop the smoking habits. Data was obtained by means of the in-depth interviews upon five participants, consisted of 5 participants with different background (student, employee, entrepreneur, retiree, and police), smoking duration, and the average number of cigarette smoked per day. The data was then analyzed using Collaizi analysis method.

Results: This study identified 4 themes of success in quitting smoking including (1) the response of the smokers in quitting smoking, (2) the obstacles they faced, (3) the mechanism of motivation and (4) the coping mechanism used in stop smoking habit. To quit smoking is not easy because smoking is a habit that is difficult to eliminate. In this study, to stop smoking successfully, the former smokers did not undergo quick stages of changing. In the first few months of their attempts, the participants experienced affective, cognitive, and behavioral responses. The biggest obstacle was the existence of a perceived desire to return smoking due to the strongly rooted habit of smoking and the perception of it gave them peace.

Conclusion: This present study concluded that the peer and environmental factors become the primary obstacles for the effort. However, the motivation from within themselves and from their environment played an important role in encouraging to stop smoking.

Keywords: Experiences, Psychological, Former smoker



ICASH-PT01

LEAN METHOD IMPLEMENTATION TO REDUCE OVERCROWDING IN THE EMERGENCY DEPARTMENT: A SYSTEMATIC REVIEW

Asti Arieanyi, Dumilah Ayuningtyas

Magister Program of Hospital Administration, Faculty of Public Health, University of Indonesia

*Corresponding authors' e-mail: astiarieyani@yahoo.com

ABSTRACT

Background: Emergency Departement worldwide faces a problem of overcrowding and excessive waiting times, access block, cost containment, and increasing demand from patients. Patients always spend at least half to two hours before discharge or admission. This review aims to provide how lean thinking principle and tool are applied in the Emergency Department to eliminate the non-valued added process, to modify the existing process, and increasing patient flow.

Methods: Eligible studies for this systematic review constitute result summarized that lean method implementation was capable of reducing overcrowding in Emergency Departement. The journal employed in this systematic review sourced from ProQuest, Pubmed, and Google Scholar, whereas the analyzed journals were seven journals.

Result: From the total of seven journals reviewed, the studies analyzed the result after implementing the lean method in the Emergency Department. In addition, all of the studies were reported successful in implementing lean intervention. Several studies explained that lean method implementation was capable of reducing waiting time, staying length, and the proportion of patients leaving without being seen in the emergency department. One study suggested that reducing radiography transportation time can reduce turnaround time and can help improve the Emergency Department flow.

Conclusion: Lean method implementation can contribute to a decrease in waiting time, stay length, and the proportion of patients leaving without being seen.

Keywords: Lean, hospital, emergency department, crowds

ICASH-PT02

STRATEGY FORMULATION FOR HOSPITALS IN REMOTE AREAS: CASE STUDY OF X HOSPITAL, WEST BORNEO PROVINCE, INDONESIA, 2019

Dewi Citra Puspita^{1*}, Adang Bachtiar²

¹Master of Hospital Administration Program, Faculty of Public Health, University of Indonesia

²Department of Health Policy and Administration, Faculty of Public Health, University of Indonesia

*Corresponding authors' e-mail: dewi.citra.p@gmail.com

ABSTRACT

Background: Located in remote area, X Hospital is facing various challenges as a private non-profit class C hospital. Therefore, it needs to develop an appropriate strategic plan for the year 2020-2024 to overcome challenges and achieve its vision. This study is aimed at identifying the strengths, weaknesses, opportunities and threats from internal and external strategic factors, determine strategic positioning, and formulate alternative strategies for X Hospital.

Method: This is a preliminary study with qualitative - exploratory design. Data were collected through in-depth interviews, group discussions and observation. The interviews were conducted with 7 key informants holding strategic management positions. This study was conducted in two in-depth stages using Consensus Decision Making Group (CDMG) method to avoid bias. Data were analyzed using Internal Factor Evaluation (IFE) and External Factor Evaluation (EFE) matrixes at the input stage and Internal External (IE) and Threat Opportunity Weakness Strength (TOWS) matrixes at the matching stage. This study was conducted at X Hospital, West Borneo Province, Indonesia, from March to April 2019.

Results: The IFE final score was 2.38 with strength (1.68) greater than weakness (0.70) and EFE score of 2.16 with threats (1.10) greater than opportunities (1.06). Such input stage results indicate that X Hospital has average response in utilizing its internal and external strategic factors where strengths are more prominent than weaknesses but the threats are still overshadowing its opportunities. Consequently, the results of matching stage place X Hospital on the position of hold or maintain strategies and formulate 11 alternative strategies that focus on market or product development.

Conclusions: X Hospital is currently on a strategic position to develop its services as the basis for the five-year strategic planning. A new policy should be made to encourage the establishment of a network with private hospitals to promote healthcare in remote areas.

Keywords: strategic plan, remote area, hospital, IE matrix, TOWS matrix

ICASH-PT03

THE QUALITY ANALYSIS OF OUTPATIENT SERVICES SATISFACTION AT KH DAUD ARIF HOSPITAL, KUALA TUNGKAL, TANJUNG JABUNG BARAT REGENCY, JAMBI PROVINCE, INDONESIA

Elfry Syahril, Amal Chalik Sjaff

Hospital Administration Study Program, Universitas Indonesia

*Corresponding authors' e-mail: elvisdoctor03@gmail.com

ABSTRACT

As a service provider which offers varied services for consumers, hospitals should fulfill customer satisfaction as the primary goal. Consumer satisfaction is the level of customers' feeling of the comparison between the performance/result that they experience with their expectations. To improve patients satisfaction, especially Healthcare Security (BPJS) patients, the role of doctors and nurses, both medical and non-medical considerably determine the patients' perception of the services provided.

Research Method: *This research employed subjective research method, namely research that aims to determine the relationship between two variables or more. This study aims to analyze the effect of service quality on outpatients' satisfaction at KH Daud Arif Hospital in Kuala Tungkal. There were 100 outpatients of KH Daud Arif Hospital as the research subjects. In addition, the object of this research was the service quality of the Hospital, including the aspects of tangibility, reliability, responsiveness, assurance, and empathy. Descriptive analysis and multiple regression analysis were employed as the data analysis technique.*

Discussion: *Working quality must be embedded as demand and need of the consumer market in the continuous process of management and goods or services production to meet the consumers' quality perception. The validity analysis was carried out by using the SPSS 22.0 program, which aims to determine the validity of each item statement assessed or evaluated by the respondents. The result was tested by comparing the coefficient α (r count) with the critical value (r table). The research purpose was to assess the clinical staffs' opinion toward the results of inpatient satisfaction survey and the benefits to improve the quality, to observe and examine the benefit of patient satisfaction survey in the quality improvement process.*

This study was analyzed by using Multiple Linear Regression to obtain the variables of Tangibility (X1), Reliability (X2), Responsiveness (X3), Assurance (X4), and Empathy (X5) of the outpatients' satisfaction (Y) of KH Daud Arif Hospital. The regression equation formula was $Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$. The result was obtained from the OLS (Ordinary Least Square) multiple regression method.

Conclusion: *In order to increase the outpatients' satisfaction of KH Daud Arif Hospital Kuala Tungkal, the hospital management should improve physical appearance/evidence by always completing hospital facilities and infrastructure. In addition, the hospital management of KH Daud Arif Hospital of Kuala Tungkal should develop the tidiness of waiting rooms and outpatient rooms to improve the customers' satisfaction.*

Keywords: *customer satisfaction, service quality*

ICASH-PT04

HALAL FOOD SUPPLY MOTIVATION FOR MUSLIM PATIENTS

Elsa Primasari, Wahyu Sulistiadi

Hospital Administration Management, Faculty of Public Health, University of Indonesia

*Corresponding authors' e-mail: elsa.primasari@ui.ac.id

ABSTRACT

Background: Muslims are obliged to consume halal food as a form of obedience to worship, but unfortunately it is still not fully a hospital as a health service capable of providing halal food guarantees and performing Halal Guarantee certification in its food kitchen. This can lead to a feeling of distrust and discomfort of patients who are being treated. Motivation and commitment are needed from all stakeholders who are strong for hospitals to provide halal food guarantee

Objective: This study was conducted to analyze the motivation of providers (hospitals) in having awareness to provide halal food for hospital patients who are Muslim as a form of compliance and compliance of these patients to carry out Islamic obligations.

Method: The method used in this study is a Systematic review for tracing articles related to motivation for awareness of halal food and halal food certification in Indonesia and other countries that serve Muslim consumers and have been published online data base in accredited and scopus journals, proquest journals, and google scholar. As inclusion criteria using Halal Food, certification, academic journals, and complete papers, exclusion in the form of articles not related to the theme, search year is limited to the last ten years, carrying out critical assessments using the PRISMA method in the selected article. The process of finding articles based on Halal Food keywords in Proquest, Scopus and Google Scholar with full inclusion tests resulted in 1370 articles after going through inclusion and exclusion into 5 articles.

Result: We found that there was a low awareness of the provision of halal food services to hospitals both in the majority and minority circles of Islam. Only a few hospitals that are characterized by Islamic services carry out their kitchen Halal Assurance certification due to their attachment to Sharia accreditation requirements. And the low interest of producers in the Halal Guarantee certification process was due to problems such as lack of knowledge about Halal, financial problems, and government support

Conclusion: The need for support Motivation of health providers in hospitals to have awareness in providing halal food for patients by participating in the implementation of Halal Guarantee certification to be able to guarantee halal food

Keyword: Halal Food, certification, motivation

ICASH-PT05

PREVENTION AND MANAGEMENT FOR THE COMPLICATION OF THIRD MOLAR SURGERY: A SYSTEMATIC REVIEW

Ida Ayu Wirastuti, IB Nyoman Maharjana, Prastuti Soewondo

Health Policy and Administration Department Faculty of Public Health Universitas Indonesia, G Building 1st Floor Kampus Baru UI Depok 16424, Indonesia

*Corresponding authors' e-mail: wiras.dentist@gmail.com, ida.ayu83@ui.ac.id

ABSTRACT

Background: Impacted third molar surgery is one of the most common procedures performed by maxillofacial surgeons and it is often attended by complications. Although clinical conditions associated with retained third molars are well understood, little is known about the impact of those conditions on the quality of life among affected patients. There is growing recognition that the impact of oral conditions on quality of life is an important outcome that can be quite useful in making treatment decisions. All the information in this review could be useful for the clinicians in order to show the surgical and pharmacologic parameters that may influence the postoperative discomfort in the third molar surgeries.

Methods: This systematic review follows the recommendations by the PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) guidelines. Some of the key words or Medical Subject Heading (MeSH) terms used in in the two data bases (Proquest and Google Scholar), included these following key words: (1) Third Molar Surgery, (2) Complication, (3) Prevention. The articles published in English from 2009 to 2019.

Results: Studies were eligible if they evaluated prevention and management for the complication of third molar surgery, and eight studies for qualitative synthesis. Of the eight articles, all studies were selected with Randomized Control Trial. Eight studies were included because they discussed the prevention and management of third molar surgery complication. Almost all of the practices of prevention and management of third molar surgery complication described that analgetic ibuprofen and paracetamol was used for decreasing the pain, and also amoxicillin tablet was used as an antibiotics for the prevention of high risk complication. According to studies, prophylactic use of chlorhexidine mouth rinse in third molar surgery are equally effective in keeping post operative infection to a minimum level in medically competent patient.

Conclusion: All studies revealed that the most common complications of third molar surgery were pain, trismus, swelling, alveolar osteitis, and dry socket. Those studies discussed the prevention and management third molar surgery complication. Ibuprofen and paracetamol were used to decrease the pain, amoxicillin (1g) and amoxicillin/clavulanate (875/125mg) had similar efficacious in preventing infection after retained third molar extraction but amoxicillin and clavunate (875/125mg) produced more gastrointestinal discomfort. Prophylactic use of chlorhexidine mouth rinse and gel in third molar surgery were equally effective in keeping post operative infection. Corticosteroid had a significant and sustained anti-inflammatory effects.

Conclusions: According to the systematic review, prevention and management of odontectomy complication can significantly impact the prevention and management of odontectomy and provide information about the infectious disease.

Key words: management; third molar surgery; complication; Third Molar Surgery; Complication; Prevention

ICASH-PT06

SPECIAL DENTAL CASE SHEET AS A MEDICAL AND FORENSIC COMMUNICATION TOOL

Irin Kirana¹, Wahyu Sulistiadi², and Tjen Dravinne Winata³

¹Hospital Administration Program, Faculty of Public Health, Universitas Indonesia

² Faculty of Public Health, Universitas Indonesia

³Department Management of Hospital Services, Universitas M.H. Thamrin, Indonesia

*Corresponding authors' e-mail: irin.kirana@ui.ac.id, whayufphui@gmail.com, tjendw@yahoo.com.sg

ABSTRACT

Background: The implementation obligation of tenth revision International Classification of Diseases (ICD-10 codes) in medical records is useful as a communication tool for doctors who receive re-treated patients in hospitals. Therefore, it must be comprehensively considered before establishing further treatment plans. Meanwhile, health service facilities in Indonesia presently has not applied Electronic Medical Record management with its various functions. In addition, it has is not applicable as legal evidence as is is regulated in the written legal systems in Indonesia. However, it has been processed by lawyers and relevant officers. The previous research on Dentistry Professionals' Medical Record Form in 2014 at Dentistry Professional Teaching Hospital considers the necessity of Special Dental Case Sheet as a communication tool between doctors and dentist. It, nonetheless, should meet the specific requirement to be utilized in the class A hospital. The standardizing symbols were conducted together with the Indonesian National Police.

Method: In this systematic review, the researchers searched a Proquest database published from January 2012 to June 2019. 10 relevant studies of the medical records were selected as a communication tool in Disaster Victim Identification (DVI) by the dentists.

Result: From 10 studies and previous studies conducted by the former researchers, it was identified the importance of medical record management as a communication tool between doctors and dentists in hospitals.

Conclusion: Special Dental Case Sheet is required to implement collective information as a general communication tool among health professionals. Moreover, it is required as a comparative data in the identification process if the related patients are the disaster victims.

Keywords: medical record, communication tool, medical professionals, Dentistry Professional Teaching Hospital

ICASH-PT07

ANALYSIS EFFECTIVITAS RELATING TO THE WAITING TIME IN CT SCANNING PROCEDURE BASED ON THE MALCOM BALDRIDGE APPROACH ON OUTPATIENT TREATMENT PATIENTS AT THE RADIOLOGY INSTALLATION OF THE CENTRAL POLICE HOSPITAL R. SAID SUKANTO

Leti Ratna Kusumawati¹, Kombes dr. Munir. Sp.R², Adang Bachtiar³

¹Post Graduate Student at the Faculty of Public Health, University of Indonesia, Depok

²Radiology installation of The Central Police Hospital R. Said Sukanto Jakarta.

³Department of Health Policy Administration, Faculty of Public Health, University of Indonesia

*Corresponding author's email : leticya_cute@yahoo.com

ABSTRACT

Introduction: Hospitals have the mission to provide excellent, comprehensive and standardized medical services in the context of improving people's health conditional through among others reduced waiting time. Waiting time is the time used by a patient to receive health services beginning from at the registration counter to the doctor's examination room.

Method: This research used the *Qualitative study*. The research was conducted from April 2019 through May 2019 at the Outpatient Treatment Unit of the Radiology Installation of the Central Police Hospital R. Said Sukanto Jakarta. The informants in this research were chosen based on the principle of suitability and sufficiency namely 8 informants; they were head of the Radiology Installation, a radiologist, a senior supervisor or radiographer, a registration counter officer, a nurse and 3 selected patients. The data collected in this study was primary data namely through in-depth interviews and direct observation, while secondary data was obtained through document reviewing.

Analysis using Malcolm Baldrige framework

Results: The result of this study indicates that the waiting time in CT Scanning procedures average 3 hours 1 minute and 25 seconds, which exceeds the standard stipulated by the Ministry of Health of the Republic of Indonesia the standard time ≤ 3 hours. Assessment aspect of malcolm Baldrige the best is aspect organization profile, leadership and customer/ patient focus, an aspect have substantial affect on the waiting time in CT Scanning procedures. Mismatch between the theory and the result of this study may be caused by limitation in the research.

Conclusion: In principle, services are already good except for few matters that need improvement namely on customer/patient care, strategic planning, measurement of analysis and management of knowledge as well as results in the organization.

Keywords: Malcolm Baldrige criteria, CT Scanning procedure, waiting time



ICASH-PT08

THE ROLE OF HOSPITAL MARKETING MIX TO THE SELECTION OF THE HOSPITAL CONSUMER

Mardiah, Sulistiadi Wahyu

Hospital Administration Postgraduate Program, Faculty of Public Health, Universitas Indonesia

*Corresponding authors' e-mail: djabarmardiah@gmail.com

ABSTRACT

Background: *The significant growth of hospital both of private and public hospital, additions requiring productive marketing strategy to sustained and increase consumers. Concept of 7p was developed from concept of 4p to create transparent communication between hospital and its customers. The given information will become the reason for customers to make their health related decision. This review is to see the role of each 7p concept (person, place, promotion, physic, price, product and proses) in marketing and maintaining of hospitals.*

Methods: *Full articles available at PubMed and Google Scholar, published from 2010-2018, and the student thesis were considered to explore the hospital marketing with mix marketing approach.*

Results: *Of 412 full articles available at the searching tools, 10 articles have been selected for further discussion and analysis. From the results, it is noted that the 7p concepts of the costumer satisfactions present significant effects to the customers' trust to the hospital.*

Conclusion: *This systematic review even only answer four out of seven P concept including proses, promotion, person and product, the findings may present the references to the hospital marketing in delivering the significant result for increasing customers' satisfaction.*

Keywords: *Marketing mix, hospital marketing, customers' satisfaction.*



ICASH-PT09

THE ANALYSIS OF HIV COUNSELING AND TESTING IN TUBERCULOSIS PATIENT AT A PRIVATE HOSPITAL IN SOUTH JAKARTA, INDONESIA

Melanie Vandauli, Adang Bachtiar

Hospital Administration, Faculty of Public Health, University of Indonesia, Indonesia

*Corresponding authors' e-mail: melanie_vandauli@yahoo.com

ABSTRACT

Background: Government policy through Minister of Health Regulation No. 74 of 2014 stipulates that patients who have been diagnosed with Tuberculosis (TB) must undergo an HIV test. It shows that these two infectious diseases are still a problem in Indonesia and in the world, where people with HIV can develop comorbidity with TB, and TB is the most common manifestation of people with HIV. This study aims to analyze the reasons for taking or not taking the immediate test: the tests are only needed in some severe cases, difficulty in explaining the test and recommending VCT to the patient, and the reason that the test is regulated by the government.

Methods: This is a cross-sectional study using primary data analysis from the questionnaire distributed at a private hospital, in South Jakarta, Indonesia, from March to April 2019. About 30 respondents were eligible for this study. The dependent variable in this study was the compliance of HIV test in Tuberculosis patients. The independent variables consisted of the following factors: performing the test automatically as requested by the government, difficulty in explaining the test, and the test mostly only needed in severe cases.

Results: From this study, it is noted that 66.7% of doctors do not automatically send Tuberculosis patients for HIV testing. Difficulty to clearly explain the needs to do HIV testing to the TB patients (66.7%) and the severity status of the patients (13.3%) were dominating the reasons why doctors don't offer the following up testing.

Conclusions: This present study concluded that a doctor may not offer the HIV counseling and testing to the patients with tuberculosis. Consider the benefit of the following up testing to early detect the HIV cases in the TB patients, it is required to improve the doctors' knowledge on how HIV may link with tuberculosis.

Keywords: TB HIV counseling, Indonesia

ICASH-PT10

TRAVEL MEDICINE MANAGEMENT FOR THE ANTICIPATION OF INFECTIOUS DISEASES IN SOUTHEAST ASIA: A SYSTEMATIC REVIEW

Ni Putu Ayu Prima Dewi* Adang Bachtiar*

¹ Health Policy and Administration Department Faculty of Public Health Universitas Indonesia, G Building 1st Floor Kampus Baru UI Depok 16424, Indonesia

* Corresponding author's email: niputuayuprimadewi@gmail.com, ni.putu813@ui.ac.id

ABSTRACT

Background: Travelling abroad have various health risks such as sudden and significant changes in altitude, humidity, temperature and exposure to a variety of infectious diseases. Travel medicine concept is needed to provide information to professional health services not only on risk of infectious diseases but also to ensure the personal safety of travellers and to minimize environmental risk during travel. The Objective of this study is to investigate the practices of travel medicine management for the anticipation of infectious disease spread by travellers.

Methods: This study used systematic literature review based on PRISMA (Preferred Reporting Items for Systematic Reviews & Meta-Analyses) protocol to identify all the published articles using relevant keywords. We searched in Scopus (Elsevier), Science direct (Web of Science), Cochrane library and Pubmed. Period of study was between 2005 and 2018. In total, there were eight studies that discussed travel medicine management regarding the anticipation of infectious diseases in Southeast Asia, which includes the spread and narrative synthesis.

Results: From 126 authors finally include 8 papers in this review. Almost all of the management of travel medicine can reduce the risks of travel-related diseases. The travel medicine management explained how to effectively prevent the spread of infectious diseases, for example dengue, malaria, rabies, zika virus, diarrhea and respiratory syndrome. Those diseases can easily spread when the travellers body immunity decreases or when they are exhausted during the trip. Thus, it is necessary for the travellers to anticipate the spread of diseases by knowing the information of particular diseases in a country or a region that will be visited and having prophylaxis or vaccination before travelling.

Conclusions: The travel medicine management can significantly impact on the anticipation of infectious diseases spread by travellers since the practices require the latest facts and information about the epidemiology of infectious health risks worldwide. The recommendation for future research is to review more travel medicine management studies in order to get deeper understanding. For Policy maker, it is suggested to design policy to improve and updating knowledge.

Keywords: infectious disease, travel medicine, Southeast Asia, management

ICASH-PT011

SYSTEMATIC REVIEW: DETERMINANTS OF PATIENT SATISFACTION WITH HOSPITAL SERVICES

Ni Putu Deni Adi, Yaslis Ilyas

Health Policy and Administration Departement, Faculty of Public Health, Universitas Indonesia
Kampus Baru UI Depok Jawa Barat – 16424 Indonesia

*Corresponding author's email: ni.putu814@ui.ac.id

ABSTRACT

Background: Satisfactory and quality service will shape patient or customer loyalty, and satisfaction is closely related to "word of mouth". The next effect will be on the process of forming an image of an increasing hospital. This is due to very tight competition conditions. So each hospital will try to put itself as best as possible in the eyes of patients / customers to be trusted to meet their needs in the health sector. Usually health care satisfaction is the highest level of satisfaction above 85%. Research is needed on the determinants of patient satisfaction with hospital services as a reference for improving the quality of hospital services.

Objectives: To determine the determinant of patient satisfaction with hospital services.

Method: A systematic review through journal review regarding the determinants of patient satisfaction with hospital services. Search articles accessed from internet databases, namely: ProQuest for English language publications, overall from abroad, last 12 months, using a combination of search terms " Patient satisfaction, determinants, hospital ", article selection using screening. Qualitative thematic analysis is used for synthesis.

Result: The similar key findings from the 10 papers are empathy or interpersonal relations becomes a determinant that dominates the increase in patient satisfaction with hospital services. Empathy is a channel of efficient communication with patients and is also considered an important determinant of clinical outcomes.

Conclusions: 10 studies included in this systematic review show the similar key findings. empathy or interpersonal relations becomes a determinant that dominates the increase in patient satisfaction with hospital services. As a recommendation for further research, it is necessary to search for the determinants of patient satisfaction with hospital services through several data bases to obtain more information about the determinants of patient satisfaction with hospitals.

Keywords: Patient satisfaction, determinants, hospital.

ICASH-PT012

FACTORS AFFECTING THE COMPLIANCE AND UTILISATION OF ANTENATAL CARE (ANC) IN BOTH HIGH INCOME COUNTRIES AND LOW-MIDDLE INCOME COUNTRIES: A SYSTEMATIC REVIEW

Petra Ade Paramita Lestari, Adang Bachtiar

Department of Hospital Administration, Public Health Faculty, University of Indonesia

*Corresponding author's email : petra.ade@ui.ac.id or petra.ade.paramita@gmail.com

ABSTRACT

Background: Every pregnancy has its own risk related to unwanted complication. ANC or antenatal care is a program to help the improvement of both pregnancy experience and ensure the health of a baby. ANC itself has been practiced since 100 years ago, a heritage process from the European community, which facilitates pregnant women during the pregnancy to have 12 visitations to nearby health facility. However, reasoning behind such intervention was unknown. As time goes by, many researches, evaluation, and review have been done regarding the content of visitations, amount of attendance each pregnant women need to do during pregnancy period, and further outcome of ANC program. This review is done to clarify ANC program throughout countries with high, middle and low income in the world and gather knowledge from such experience.

Methods: Review was done by using databases such as PubMed, Springerlink, and proquest with keyword factors related to utilization of ANC as intervention and mother's compliance, years of publication and PRISMA method.

Results: Out of all 33 articles obtained, 12 articles were chosen as other article did not comply to the selection criteria such as year of publication and the content. Variations among different countries in such studies occurred in factors such as the program itself, subject compliance towards the study, and the number of attendees. Furthermore, technologies such as instant messages and internet was also utilized in some programs. Among many factors related to the utilized and compliance of pregnant mother, each country policies, lifestyle, education level, and family incomes played a major role in such differentiation. Furthermore, perception of mother towards the program will also affect her motivation.

Conclusion: Although the implementation of ANC in many countries still varies, there were many positive evidences to support the utilization of ANC. Surrounding communities could implement the program if it is suitable to the individuals. Monitoring and evaluation of such program also need to be done.

Keywords: ANC, compliance, utilization, attendance, content.



ICASH-PT013

TURNAROUND TIME OF DIAGNOSTIC LABORATORY RESULTS AS A QUALITY IMPROVEMENT TO PATIENT SATISFACTION: A SYSTEMATIC LITERATURE REVIEW

Purbosari¹, Ede Surya Darmawan²

¹Magister Students of Hospital Administration Studies, Faculty of Public Health, Universitas Indonesia

²Lecturer, Faculty of Public Health, Universitas Indonesia

*Corresponding author's email: purbosari@ui.ac.id

ABSTRACT

Background: Laboratory information is increasingly recognized as a crucial factor to reduce diagnostic uncertainty and enhance quality care. Medical diagnoses and effective treatments depend on the accurate and timely reporting of laboratory test results, and the trend toward disease prevention and personalized care calls for more complex and effective tests and biomarkers. Today's clinical laboratory provides essential information for the diagnosis, monitoring, screening, prevention, early diagnosis, tailored treatment and more effective monitoring of human diseases

Response Time is an action that is carried out quickly and precisely to handle patients. While an ability for fast (responsive) service is the response time taken to the patient when the patient arrives to get a response. Response time is one indicator of service quality that affects patient satisfaction.

The laboratory turnaround time is the starting point for the time of for receiving the sample, the time for registration, or the analytical sampling time and end point for analytical completion, the time for verification of results, the transfer of results to the time for medical record, and the time for report printing.

Methods: In this systematic review, we searched Pubmed, Science Direct, and Scopus database published between January 2010 through March 2019. The included studies were broadly classified as reporting from healthcare/hospital and international survey. There were 21 studies that met keywords searching criteria. Then we analyzed based on the content of studies, matching to our objectives

Results: Out of 21 identified studies, we recognized 6 scholarly journals of turnaround time diagnostic laboratory results as quality improvement of medical care and medical diagnoses and that affects patient satisfaction. These studies concluded that turnaround time becomes a key element to patient safety that contributes to patient satisfaction.

Conclusion: Turnaround time as one of quality indicator in a laboratory setting. Improvement in this parameter could give benefit to the patient and deliver service excellence. Standardized reporting method is mandatory as it will not only allow the accreditation of clinical laboratories according to the International Standard but also to assure guidance for promoting improvement processes and guaranteeing quality care to patients and patient satisfaction.

Keywords; diagnostic laboratory; turnaround time, quality

ICASH-PT014

THE ACCURACY OF DIAGNOSIS, PROCEDURES AND CODING COMPLETENESS AND THEIR CORRELATION WITH INA-CBG CLAIMS

Yuliani, Atik Nurwahyuni

Hospital Administration Study, Faculty of Public Health, University of Indonesia

*Corresponding author's email: bahanas.bs@gmail.com

ABSTRACT

Background: Since 1 January 2014, the INA-CBG system has been applied as a method of payment for outpatient and inpatient services. Indonesian-Case Based Groups (INA-CBG) tariff is the amount of payment claimed by the Health Social Security Administering Agency (BPJS) to the hospitals for a package of services based on the classification of diagnoses and procedures of diseases. The inequality in the number of claims received by the hospital compared to the resources used will be unbeneficial to the hospital. The purpose of this study is to identify the correlation of incompleteness and inaccuracy of diagnosis, procedures, and coding to the number of INA-CBG claims at hospitals in Indonesia.

Method: The research method is the literature review. The authors found five articles cited by Google Scholar published in journals and two theses taken from the Library of Universitas Indonesia that include "factors that influence INA-CBGs claim amounts at hospitals" or related concepts in the title or abstract. Articles and theses published from 2014 to 2018 were search using the following terms in the title or abstract: "accuracy, completeness, diagnosis, coding, INA-CBG claims."

Result: The authors found seven articles that met our criteria: Two studies used qualitative approach, three studies were quantitative studies, two studies used a mix method. From these studies, there were five practical considerations that were considered as the factors that influenced the number of INA-CBGs claims at hospitals in Indonesia: completeness of filling a medical resume, accuracy of coding, accuracy in filling medical resumes, the accuracy of information systems, and completeness of claim administration document.

Conclusion: The study has indicated the factors that influence the amount of INA-CBG claims in hospitals in Indonesia, mainly, the factor of completeness of medical resumes and the factor of accuracy in coding by the coders. The completeness of a medical filling resume which is highly dependent on physician compliance and accuracy coding. All the human resources who have a role in coding and claims, need to improve their capability on it, through a workshop, or any other education funded by the hospital. Coder certification must be done. Hospital has to develop hospital management information system for acceleration in coding and claim.

Keywords: coding, inaccuracy, incompleteness, INA-CBG claim

ICASH-PT015

THE INFLUENCE OF MARKETING MIX TO PATIENT SATISFACTION IN HOSPITALS: NARRATIVE REVIEW

Nurul Qosimah Batubara, Adik Wibowo

Hospital Administration Study, Faculty of Public Health, University of Indonesia

*Corresponding author's email : nurulqosimahbatubara@gmail.com

ABSTRACT

Background: Hospitals, as service providers, have a large role in meeting people's needs regarding their health. The increasing growth of hospitals adds to the menu of choices for people to utilize health services according to their needs. This competition has changed the mechanism by which customers are not only users of health services but as determinants of the future and the continuity of a hospital. Marketing activities can help hospitals improve and win the competition. Marketing managers must be able to combine the marketing mix variables appropriately so that all variables can increase consumer's decision and patient satisfaction.

Aims. The purpose of this study was to determine the effect of mix marketing on patient satisfaction at the hospital.

Method: This study was conducted in a literature review by searching for articles and journals related to hospital mix marketing. Search journal articles are done through Google Scholar database with the search year 2010 until 2018. The keywords used are "marketing mix and "hospital." So that six articles will be reviewed.

Results: In the six studies reviewed there was one study that showed that all the mix marketing variables namely product, price, people, place, promotion, process, and the physical evidence had a significant influence on patient satisfaction and the hospital for medical treatment. The significant results are known from the results of statistical tests showing that p -value < 0.05 . In several other studies, it shows that there are significant variables and some that are not significant for consumer decision and patient satisfaction.

Conclusion: The Marketing mix has an important cost for the decision to choose a hospital. The mix marketing has varied significant influence on consumers' decision and satisfaction to choose the hospital for medical treatment. By knowing the mix marketing variable that affects customer satisfaction, hospital management, namely the marketing department, can optimize and develop marketing types that can increase public interest so that the target profit of the hospital is achieved.

Keywords: Marketing mix, 7P, Patient satisfaction, Hospital.

ICASH-PT016

DETERMINANT OF UNWANTED PREGNANCY IN INDONESIA 2017 (A SECONDARY DATA ANALYSIS OF 2017 IDHS)

Essi Guspaneza¹, Evi Martha²

¹Post Graduate Student of Public Health Faculty, Universitas Indonesia, Depok

²Department of Health Promotion Public Health Faculty, Universitas Indonesia, Depok

*Corresponding author's email: essiguspaneza19@gmail.com

ABSTRACT

Background: The unwanted pregnancy will cause some problems, not only increasing the population but also affecting reproductive health among woman. The unwanted pregnancy can cause miscarriage or abortion, obstructed labour, bleeding and maternal mortality. Based on 2017 Indonesian Demographic and Health Survey (IDHS), the prevalence of unwanted pregnancy is 14% from total pregnancy. This number is increasing compare with Riskesdas in 2013 there was 5.8% unwanted pregnancy. This study aims to examine the determinant of unwanted pregnancy in Indonesia.

Methods: This study was a cross sectional design used secondary data analysis of 2017 IDHS. The sample of this study was woman who had aged 15-49 years old and had been pregnant in (...). Totally, 1,997 respondents were recruited in this study. The data was analyzed in univariate and bivariate analysis used Chi-square. Logistic regression analysis was used to analyzed in multivariate.

Results: The prevalence of woman who had unwanted pregnancy was 12.8% from total pregnancy. Bivariate analysis showed aged less than 20 years old and more than 35 years old, lived in rural area and had more than 3 children associated with having unwanted pregnancy. Multivariate analysis showed that respondents who had age less than 20 and more than 35 years old ($p=0.0001$; $OR= 1.826$) more likely had unwanted pregnancy.

Conclusion: This study showed that woman who had risky reproductive aged, lived in rural area and had children more than 3 were statistically significant with unwanted pregnancy. The risky reproductive aged was the most influenced factor for having unwanted pregnancy. So that, the government must support the National Population and Family Planning Board to promote the use of contraceptive among woman in reproductive aged especially in the risky reproductive aged.

Keywords: Determinant, Unwanted Pregnancy, IDHS