



2<sup>nd</sup> ICHMS & 2<sup>nd</sup> LSC

PROCEEDING

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## The 2nd International Conference of Medical and Health Sciences (ICMHS) and The 2nd Life Sciences Conference (LSC) 2016

*"Towards a Better Quality of Life  
through Interdisciplinary Research"*

Yogyakarta, 9<sup>th</sup>-10<sup>th</sup> December 2016  
The Alana Hotel and Convention Center

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**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
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**TABLE OF CONTENT**

COMMITTEE .....	viii
WELCOMING SPEECH	
Welcome Message from Committee .....	ix
Welcome Message from Dean .....	x
Welcome Message from Rector .....	xi
Welcome Message from the Head of Provincial Health Office Special Region of Yogyakarta .....	xiii
KEYNOTE SPEAKER OF INTERNATIONAL CONFERENCE .....	xv
REVIEWER .....	xvi
FULL ARTICLE	
Diabetic Neuropathy - A Chance Towards A Better Treatment <i>Tri Wahyuliati</i> .....	2
Herbal Medicine a Holistic Approach; in Case of Food Supplement Formulation of <i>Sauropus androgynus</i> and <i>Elephantopus scaber</i> to Modulate Immune and Hormonal System in Pregnant <i>Salmonella typhi</i> Infected Mice <i>Muhammad Sasmito Djati</i> .....	10
Continuing Competence of Practicing Nurses in Indonesia <i>Fitri Arofiati, SKep.,Ns, MAN Ph.D</i> .....	19
The Influence of Neuromuscular Taping (NMT) in Walking Speed for the Patients After Ischemic Stroke <i>Umi Budi Rahayu</i> .....	29
Correlation between Larvae Free Number with DHF Incidence in Sleman, Yogyakarta, Indonesia <i>Tri Wulandari Kesetyaningsih, Sri Andarini, Sudarto, Henny Pramoedyo</i> .....	34
Correlation Interdialytic Weight Gain-Idwg towards Physical and Psychological Health to Quality of Life in Patients with Hemodialisa <i>Cecilya Kustanti, Maria Putri Sari Utami</i> .....	42

**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

---

Quality of Life in Hemodialysis Patiens with Hypertension <i>Maria Putri Sari Utami, Elsy Maria Rosa, Azizah Khoiriyati</i> .....	48
Environmental Housing Characteristic of Pulmonary Tuberculosis Sufferers in Slum Area <i>Iwan Stia Budi, Yustini Ardillah, Indah Purnama Sari, Dwi Septiawati</i> .....	55
Exploration Study in Psychological Changed on First Trimester Pregnant Women at Kembaran II Health Center, Banyumas <i>Wilis Dwi Pangesti, Dewi Ambarwati, Inggat Ratna Kusuma</i> .....	63
The Anxiety of Pregnant Mother with History of Abortion in Health Service 2 Banyumas Qualitative Study <i>Evicenna Naftuchah Riani, Wilis Dwi Pangesti, Diah Atmarina Yuliani</i> .....	72
Analysis of Infection Control Risk Assessment and Strategies to Reduce Health-Care Associated Infections in RS PKU Muhammadiyah Gamping Yogyakarta <i>Nurmalita Sari, Elsy Maria Rosa</i> .....	76
Health Promotion Program for Disaster Eruption of Mount Merapi Refugee in Youth Centre Sleman Distric, Yogyakarta Special Province, Indonesia <i>Novitasari Ratna Astuti</i> .....	91
Pap Smear is Important Screening of Cervical Cancer for Women <i>Ivanna Beru Brahmana</i> .....	100
Analysis of Compliance on Implementing Standard Precautions on Dental Health Service at PKU Muhammadiyah Gamping Hospital of Yogyakarta <i>Maria Margaretha S Nogo Masa, Elsy Maria Rosa</i> .....	108
Qualitative Study of Stakeholders' Knowledge Regarding Alert Village Program in Ogan Ilir Regency <i>Asmaripa Ainy, Iwan Stia Budi</i> .....	123
The Influence of Parents Knowledge and Health Care Access to the Identification of Children with Hearing Impairment <i>Asti Widuri, Alazi, Muhammad Pringgo Arifianto</i> .....	131

**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

---

The Comparison of Maternal Leukocytosis Incidence between Preterm Premature Rupture of Membranes and Premature Rupture of Membranes at Term in Panembahan Senopati Hospital Bantul Yogyakarta <i>Choirotun Jum'iyatin Nisak, Supriyatningsih</i> .....	137
Analysis of Patient Safety Culture Instrument by MaPSaF <i>Arum Astika Sari, Arlina Dewi</i> .....	143
The Relationship of Fish Consumption to Cognitive Development in Students of SD Saptosari, Gunungkidul, Yogyakarta <i>Dewi Ngaisyah</i> .....	158
Inter Professional Education and Collaborative Practice: Reflection from Health students <i>Wiwik Kusumawati, Ika Setyawati, Romdzati, Likky Tiara Alphianti</i> .....	164
Steroidal Saponin in Ethanol Extract Tuber of Purple Yam ( <i>Dioscoreaalata L.</i> ) Decrease IL-4 Density of Blood Sera on BALB/c Mice Model Digestive Tract Allergy <i>Sri Nabawiyati Nurul Makiyah, Muhaimin Rifa'i, Widodo, Muhammad Sasmito Djati</i> .....	173
Managerial Leadership Competence in PKU Muhammadiyah Hospital of Gamping <i>Ranggit Oktanita, Qurratul Aini, Ekorini Listiowati</i> .....	184
Malaria Occurrence Factor Analysis Based on Elevation of Sea Surface in the District of OganKomeriungUlu, South Sumatra <i>Pademi Alamasyah, Chairil Anwar, Dwi Setyawan, Laila Hanum</i> .....	200
Increasing Family Involvement to Reduce of Cigarette Consumption with Participatory Learning Action (PLA) Approach <i>Tri Hastuti Nur Rochimah, Salmah Orbayinah</i> .....	212
Air Pollution Effect to Human Health in Palembang City <i>Marsidi, M.T. Kamaluddin, Fauziah N. Kurdi, Novrikasari</i> .....	230
Identification of Patient Satisfactory Profile for Outpatient Pharmaceutical Service at Private and Government Hospital within Semarang District <i>Pramitha Esha Nirmala Dewi, Novita Dwi Dahliiyanti</i> .....	241

**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

---

---

Intervention of Family Nutritional Awareness to Increase Family's Food Security <i>Fatmalina Febri, Anita Rahmiwati, Fenny Etrawati</i> .....	249
The Effects of Exercises in Molecular Neuron Cells of Cerebellum in Congenital Hypothyroidism Rats <i>Idiani Darmawati, Marten Bhara Suryo Aji, Zulkhah Noor</i> .....	258
The Effect of Air Freshener Exposure on Corneal Thickness of White Rat ( <i>Rattus norvegicus</i> ) <i>Yuningtyaswari, Pajar Sigit Nugroho</i> .....	265
The Correlation between Education about Personal Hygiene and Knowledge and Attitude of Personal Hygiene of the Adolescent <i>Kusbaryanto, Wahana</i> .....	272
The Relationship between Sports Activities and Premenstrual Syndrome In SMA N 1 Sentolo, Kulon Progo <i>Fenthy Vabiella, Alfaina Wahyuni</i> .....	277
Relationship Thyroid Status to the Physical Growth and Psychomotor Development on Children Under 2 Years in Endemic Areas of Iodine Deficiency Disorders in District Samigaluh of Kulonprogo Regency <i>Adang Muhammad Gugun, Zulkhah Noor, Jifani Rasyad, Mardylla Nur Fitriany..</i>	282
Baby Blood Vessel Detection-Based Touch Sensors <i>Ade Pajar Pirdianto, Anna Nur Nazila Chamim</i> .....	299
Analysis of Factors that Influence Smokers Using Alcohol among Students in a Private University in Yogyakarta <i>Iman Permana, Gibran Ilham Setiawan</i> .....	306
The Effectiveness of Combined Warm Water Foot Submerging and Breath Relaxation Therapy on Lowering the Blood T Pressure in Hypertensive Patients in the Work Area of Puskesmas Penumping Surakarta <i>Prima Trisna Aji, Novita Kurnia Sari, Sri Nabawiyati Nurul Makiyah</i> .....	315
Assessment of Interprofessional Communication and Collaboration: Using Multi Methods <i>Sri Sundari Purbohadi</i> .....	335

**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

---

---

Bed Side Teaching as Effort for Decreasing Needle Stick and Sharp Injury in Clinical Practice Students of PSIK FKIK UMY <i>Azizah Khoiriyati, Novita Kurnia Sari</i> .....	342
The Relationship between Working Period and Cholinesterase Blood Levels among Pesticides-Spraying Workers in the Oil Palm Plantation <i>Restu Dewi Lestari, Merry Tiyas Anggraini</i> .....	350
The Effect of Interpersonal Relationship toward Birth Satisfaction <i>Hema Dewi Anggraheny</i> .....	356
Effect of Early Mobilization Education of The Level Anxiety and Independence of Patients After Total Knee Replacement in Hospital <i>Amik Muladi, Sagiran, Azizah Khoiriyati</i> .....	363
The Effect of Normal Dose Extract Gempur Batu Kejibeling ( <i>Strobilanthus crispus</i> .BL) to the Histological of Rat's Digestive Tract <i>Yoni Astuti, Ali Usodo Mulyo, Harminani</i> .....	371
Effectiveness of Alcohol 70%, Clorhexidine Gluconate 4% Soap and Irgasan DP 300 as Hand Sanitizers in Reducing Bacterial Growth <i>Inayati, Pinter Hartono</i> .....	377

**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

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**Committee of ICMHS & LSC 2016**

Supervisor	dr. Ardi Pramono, Sp.An, M.Kes
Chair	dr Iman Permana, M.Kes, Ph.D
Partner	Dr Zahid Iqbal, Ph.D
Secretary	Winnie Setyonugroho, S.Ked, MT, Ph.D
Secretariat	dr Bramantyas Kusuma H, M.Sc Futuh Hidayat, SEI Elida Tri Grahani, SE
Treasury	dr Hidayatul Kurniawati, M.Sc
Scientific section	Dr dr Ikhlas M Jenie, M.Med, Sc Dr Sri Nabawiyati Nurul Makiyah, S.Si, M.Kes Lia Fitriana, SP
Programme section	dr Ika Setyawati, M.Sc dr Imaniar Ranti, M.Sc dr Ahmad Ikhludin, SpM
Publication and Documentation section	dr April Imam Prabowo Arif Hadianto, ST
Logistic and Transportation	dr Muhammad Kurniawan, M.Sc Aris Nuryanta, SH Muhammad Ma'rifatullah Katiga Putra Dwi Hatmo Budi, S.IP
Fund Raiser	dr Maria Ulfa, MMR dr Akhmad Syaiful Fatah Husein, SpAn



**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

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**Chair person of The 2<sup>nd</sup> International Conference of Medical and  
Health Sciences and The 2<sup>nd</sup> Life Sciences Conference 2016**



Welcome to Jogja, sugeng rawuh!

For the second time, the Faculty of Medicine and Health Sciences Universitas Muhammadiyah Yogyakarta is going to conduct the 2nd International Conference of Medical and Health Sciences (ICMHS) this December in vibrant Yogyakarta, Indonesia. This year we are going to collaborate with the Life Sciences Society of Pakistan for their 2<sup>nd</sup> Life Sciences Conference (LSC) with Dr. Zahid Iqbal as the general secretary.

This year's conference theme "Towards a better quality of life through interdisciplinary research" will be celebrating an era of seamless interdisciplinary integration and collaboration in scientific innovations with the involvement of more extensive topics and disciplines in the conference. We aim to exhibit the products of that kind of approach in solving challenges, improving the quality of life, and creating sustainable developments. We are happy to announce that our conference is filled with Invited speakers from Pakistan, United States of America, Uni Emirates Arab, Malaysia and Indonesia. Presentations will be conducted in oral as well as poster that covers topics from medicine, public health, dentistry, pharmacy, biomedical to agriculture. To put more credibility to the conference we are collaborating with Isra Medical Journal and the Asian Journal of Agriculture and Biology to publish selected papers from the event. Other paper will be published in the ISBN Proceeding book.

The last but not least, enjoy the conference, start networking and sharing ideas, and let immerse yourself to the heritage cultural ambient of Jogja, sumonggo!

Yogyakarta, 1<sup>st</sup> December 2016

dr. Iman Permana, M.Kes, Ph.D.

**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

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**Dean of Faculty of Medicine and Health Sciences,  
Universitas Muhammadiyah Yogyakarta**



Assalamu'alaikum Wr. Wb.

Science, especially in the areas of health and life growing more rapidly. We need to work together in the research of various disciplines to the advancement of science and to provide benefits to human life.

After successfully organized international scientific meeting last year, the Faculty of Medical and Health Sciences Universitas Muhammadiyah Yogyakarta, held the second scientific meeting ICMHS along with "2nd Life Sciences Conference". In this second scientific meeting, FKIK UMY collaborates with various researchers, among others from Pakistan, Malaysia, and the United States. Taking the theme "Towards a better quality of life through interdisciplinary research" we hope to establish cooperation with various parties to be able to contribute ideas to the civilization of human life.

Finally, we congratulate the scientific meeting in the city of Yogyakarta Indonesia. Enjoy the beautiful city of Yogyakarta with priceless historical relics. We hope that this meeting can run smoothly and provide benefits to the advancement of knowledge.

Wassalamu'alaikum Wr. Wb.

Yogyakarta, 1<sup>st</sup> December 2016

dr. Ardi Pramono, M.Kes, Sp.An.

**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

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**Rector of Universitas Muhammadiyah Yogyakarta**



Assalaamu'alaikum Wr. Wb.

Ladies and Gentlemen,

Welcome to the 2<sup>nd</sup> International Conference on Medical and Health Science in conjunction with the 2<sup>nd</sup> Life Sciences Conference 2016

Welcome to Yogyakarta City of Tolerance

Our Faculty of Medicine and Health Sciences has been doing such international conference almost every year for the last ten years. This and other previous conferences are the things that supporting our vision as an excellence and Islamic university, a young and global university. We will always try to keep monitoring the development of science through sending more lecturers to do the sabbatical leave overseas, doing international research collaborations and also the international conference. Each department should do this strategy of internationalization so that each department has its own network. Faculty of medicine and health science is one of the most progressive units in implementing this strategy by inviting international experts on a regular basis. This program will certainly strengthen our vision.

International conference on medicine and health sciences is a smart choice to offer our lecturers access to the most recent development of the subjects. The participants will also gain the same knowledge and latest information on medicine and health sciences. As everyone knows that the development of science and technology are faster today compared to the previous period. Information technology, computer, and other development havefastened the transformation of medicine and health science into the different and more complex stage.

**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

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Cellular technology, for instance, can be used for several functions including those that directly impacts our daily life. There is no long distance call anymore today because cellular phone can do everything we need to contact other people far from where we stand anytime anywhere. People will finally innovate cellular phone for the sake of personal health services. We will in the future using our simple cellular phone to detect our body temperature, blood pressure, even how much fat we have in our body and how much it is supposed to be. We may also be able to check the health of our body without leaving our house and order medicine without going into the drug store. Everything is almost possible as long as we think hard for the better of people in the future. Enjoy the conference and don't forget to visit our rich tourist destinations, mountains, beaches or caves (underground waterways).

Thank you

Wassalaamu'alaikum Wr. Wb.

Prof. Dr. Bambang Cipto, MA

**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

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***Keynote Speech***

**by Head of Provincial Health Office Special Region of Yogyakarta  
in International Conference  
of Medical and Health Sciences and Life Sciences Conference**

**The Alana Hotel and Convention Center, Yogyakarta, December 9-10, 2016**

The honorable:

- Rector of Muhammadiyah University of Yogyakarta,
- The Dean of Medical and Health Sciences Muhammadiyah University of Yogyakarta,
- The chairman of organizing committee of the international conference of medical and health,
- Distinguished guests and colleagues.

*Assalamu'alaikum Warahmatullahi Wabarakatuh,*

First of all, we thank God for His blessings that today we may attend the International Conference of Medical Health Towards a Better Quality of Life Through Interdisciplinary Research in Yogyakarta.

My distinguished colleagues,

In Indonesia National Long Term Development Plan (2005-2024), the Indonesian Ministry of Health have determined a paradigm shift that have governed health services in health development plan. There has been a shift from Curative Health Services to Preventive and Promotive Health Services.

Recently, Indonesia suffers from a triple burden of diseases as health development challenges. The triple burden of diseases are: 1) the backlog of common infections, undernutrition, and maternal mortality; 2) the emerging challenges of non-communicable diseases (NCDs), such as cancer, diabetes, heart disease; and 3) mental illness, and the problems directly related to globalization, like pandemics and the health consequences of climate change.

Dear colleagues,

Here are some data that show several health problems in Indonesia:

1. Maternal mortality rate in 2015 is 4,809 cases, infant mortality rate in 2015 is 22,267 cases;
2. Regarding to children under the age of five, the national stunting rate is 37.2% which consists of 18% for very short dan 19.2% for short (Riskesdas 2013);

## The 2<sup>nd</sup> International Conference of Medical & Health Sciences and The 2<sup>nd</sup> Life Sciences Conference 2016

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3. HIV testing coverage is 14% dan antiretroviral (ARV) therapy coverage is 65.58% (Directorate General of Disease Control and Prevention Ministry of Health, 2015);
4. Tuberculosis (TB) notification rate in 2015 is 73.5% and tuberculosis treatment success rate is 72% (Directorate General of Disease Control and Prevention Ministry of Health, 2015).

Distinguished guests,

Indonesia Health Development Program in 2015-2019 strengths in improving human quality life through Health Indonesia Program with family approach. The Indonesian Ministry of Health issued The Minister of Health Regulation (Permenkes) No. 39 Year 2016 as a Guideline of Implementation of Health Indonesia Program with Family Approach. This program has 12 main indicators as markers of a family health status. Currently, many health programs have been implemented by Indonesian Ministry of Health, Provincial Health Offices, and District Health Offices. However, many health problems, some as mentioned above, still become health burdens. We may ask a question whether the programs that we conducted have answered the health problems we have in Indonesia.

It would be better if all health programs that we implement based on scientific health research, especially interdisciplinary research. The research should be related to detection, prevention, and treatment of diseases or problem solving for better health.

My dear colleagues,

Being a province with speciality, Special Region of Yogyakarta placed Traditional Medicine as one of the priority programs in Provincial Medium Term Development Plan (2017-2022). We still encounter many challenges in developing Traditional Medicine, especially in providing services which are based on scientific evidence.

Distinguished colleagues,

We look forward to results of interdisciplinary research which would support health problem solving, especially by developing traditional medicine in Yogyakarta. We believe that collaboration in interdisciplinary research would improve quality of human life.

Finally,

Thank you for your attention. We wish you a successful conference.

Wassalamu'alaikum Warahmatullahi Wabarakatuh,

On behalf of  
the Head of Provincial Health Office  
Special Region of Yogyakarta

**Drg. Pembajun Setyaningastutie, M.Kes**

**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

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**SPEAKER OF  
INTERNATIONAL CONFERENCE**

**Zahid Iqbal**

Al-Nafees Medical College Isra University Islamabad Campus Islamabad, Pakistan  
*"One Health Program for Public Health Benefit"*

**Prof. Dr. Abdul Khaliq**

Professor, Department of Agronomy, University of Agriculture, Faisalabad  
*"Role of Agriculture in Poverty Alleviation of Rural Areas"*

**Fitri Arofati**

Universitas Muhammadiyah Yogyakarta, Indonesia  
*"Continuing Professional Development of Practicing Nurses in Indonesia"*

**Tri Wahyuliati**

Universitas Muhammadiyah Yogyakarta, Indonesia  
*"Diabetic Neuropathy - A Chance Towards A Better Treatment"*

**Mohammad Khalid Ashfaq**

University of Mississippi, USA  
*"Natural Products –Use or Misuse"*

**Muhammad Mukhtar**

American University of Ras Al Khaimah, United Arab Emirates  
*"Emerging Biotechnologies and Genomic Medicines in Human Health and Well-Being"*

**Muhammad Sasmito Djati**

Brawijaya University Malang, Indonesia  
*"Herbal Medicine a Holistic Approach: in case of food supplement formulation of Sauropusandrogynus and Elephantopuscaberto modulate immune and hormonal system in pregnant Salmonella typhi infected mice"*

**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

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**REVIEWER**

1. Dr. Zahid Iqbal, Ph.D (Isra University, Islamabad, Pakistan)
2. Prof. Dr. Abdul Khaliq (University of Agriculture, Faisalabad)
3. Dr. Mohammad Khalid Ashfaq, DVM, DTVM, MS, Ph.D (University of Mississippi, USA)
4. Dr. Muhammad Mukhtar, Ph.D (American University of Ras Al Khaimah, United Arab Emirates)
5. Dr. Ir. Muhammad Sasmito Djati, MS. (Brawijaya University Malang, Indonesia)
6. Fitri Arofiati, S.Kep., Ns., MAN., Ph.D (Universitas Muhammadiyah Yogyakarta, Indonesia)
7. Dr. SN Nurul Makiyah, S.Si., M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
8. dr. Iman Permana, M.Kes, Ph.D (Universitas Muhammadiyah Yogyakarta, Indonesia)
9. Dr. dr. Ikhlas M. Jenie, M.Med, Sc (Universitas Muhammadiyah Yogyakarta, Indonesia)
10. Dr. dr. Arlina Dewi, M.Kes, AAK (Universitas Muhammadiyah Yogyakarta, Indonesia)
11. dr. Oryzati Hilman, M.Sc, CMFM (Universitas Muhammadiyah Yogyakarta, Indonesia)
12. Dr. Dra. Yoni Astuti, M.Kes, Ph.D (Universitas Muhammadiyah Yogyakarta, Indonesia)
13. Dr. drg. Tita Ratya Utari, Sp. Ort (Universitas Muhammadiyah Yogyakarta, Indonesia)
14. Dr. dr. Tri Wahyuliati, Sp.S, M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
15. Dr. Elsy Maria Rosa, M.Kep (Universitas Muhammadiyah Yogyakarta, Indonesia)
16. Dr. dr. Titiek Hidayati, M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
17. Dr. Shanti Wardaningsih, M.Kep., Ns., Sp.Kep.J., Ph.D. (Universitas Muhammadiyah Yogyakarta, Indonesia)
18. Dr. dr. Sri Sundari, M.Ke (Universitas Muhammadiyah Yogyakarta, Indonesia)
19. Dra. Lilis Suryani, M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
20. Drh. Tri Wulandari K, M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
21. Dr. dr. Wiwik Kusumawati, M.Kes (Universitas Muhammadiyah Yogyakarta, Indonesia)
22. Sabtanti Harimurti, S.Si., M.Sc., Ph.D., Apt. (Universitas Muhammadiyah Yogyakarta, Indonesia)



**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

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**SPEAKER OF  
INTERNATIONAL CONFERENCE**

ICMHS-O-1-17

**Exploration Study in Psychological Changed on First Trimester  
Pregnant Women at Kembaran II Health Center, Banyumas**

**Wilis Dwi Pangesti<sup>1</sup>, Dewi Ambarwati<sup>2</sup>, Inggar Ratna Kusuma<sup>3</sup>**

<sup>1-3</sup>University Muhammadiyah of Purwokerto, Indonesia

Email: [wilisdwi@gmail.com](mailto:wilisdwi@gmail.com)

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**Abstract**

Pregnancy is a unique process that occurs in women that involves physical-psychological changes. Well preparation in pregnancy gives a positive impact for mothers in new role to achieve the welfare of the mother and fetus. The purpose of this research is to describing the psychological changes in first trimester pregnant women at Kembaran II Health Center, Banyumas. The research method used qualitative approach with explorative design. The main subject of this research is 8 pregnant women. Supporter subject is her husband and 4 midwives in this area. Determining subject of this research used purposive sampling. Collecting data used direct interview with interview guide. Analysis used technical analysis with interactive model of Milles and Huberman. The research found pregnant women in first trimester of pregnancy showed physiological changes. They felt happiness and sadness at the same time with her pregnancy. Happiness reaction based on information indeed planned pregnant diagnosis. They expressed happiness by gived information to family about their pregnancy, told her best hope for fetus in their womb and normal labour process. In the first trimester they expressed sad reaction because of her pregnancy. This situation caused by physical changes, discomfort due to pregnancy, new role adaptation as parent and their family income. It can be concluded that a mother during early pregnancy emotional changes with respect to hormonal ,physical and role changes.

Keywords: psychological changed, first trimester pregnant women, exploration study

# The 2<sup>nd</sup> International Conference of Medical & Health Sciences and The 2<sup>nd</sup> Life Sciences Conference 2016

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## INTRODUCTION

Pregnancy is a natural event that occurs in a woman. Pregnancy takes place in a certain period of time, it takes about 280 days or 40 weeks which is calculated from the first day of the last menstrual period.<sup>1</sup> The gestation period is a unique event that causes physical and psychological changes in a woman. These changes occur in all systems of the body to support the growth and development of the fetus in the womb. Psychologically, pregnant women also experience emotional changes relating to changes in the role as future parents. The role changing of women, it takes from the receiving affection becomes caregiver due to the presence of a fetus in the womb. In the transition period, pregnant women require acceptance of the attitude and a new identity from her husband, family and people.<sup>2, 3</sup>

Regarding to the psychological changes in pregnancy, Reva Rubin's theory emphasizes the efforts on pregnant women in the achievement of their role. They have had expectations about the welfare of her personal and her baby, to get an acceptance of her pregnancy in the public, the impact on the identity and the understanding attitude of take and give since it was first stated as pregnant. Changes in pregnancy does not solely affect pregnant women themselves, but also a new thing for her husband and family. Pregnancy is considered as the presence of a new family member in the family environment. Pregnancy is a crisis of maturity that can cause stress, but worth it because the woman prepares to give a care have a bigger responsibility. As preparations to face the new role, pregnant women will change the concept itself in order to become a parent. Gradually, he changed from a person who is free and focus on yourself, to be someone who is committed for caring another individual. This pregnancy is the task of the development of a woman in her life.<sup>3, 4</sup>

Reaching the tasks development in women during pregnancy provides significant emotional meaning for her. In this period, a pregnant woman who accompanied strong pressures feeling will be very sensitive (emotional) and may result in disruption of mental balance. Feelings and emotions are state of a person at a certain time period, in this case the gestation period. For example if a person feels sad, happy, scared, angry after hearing, seeing or feeling anything, it can be concluded that the emotions in pregnancy is a psychological state of pregnant women as a result of her pregnancy. According to Walgito, there is a theory of the relationship between emotions with physical symptoms. When a person feels angry, the individual will have physical changes. For example, if someone experiencing anxiety, then it will face pale and palpitations.<sup>5, 6</sup>

Psychological changes during pregnancy as part of reaching their role is not always negative. Ramona T. Mercer emphasized that the achievement of the mother's role starts from a state of stress during pregnancy. *Stress antepartum* against a family function provides a positive or negative impacts. When the function and role of himself

## The 2<sup>nd</sup> International Conference of Medical & Health Sciences and The 2<sup>nd</sup> Life Sciences Conference 2016

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in his family has been positive, such as the support of her husband and his family members, the pregnant women will be possibly able to cope with *stress antepartum*. On the contrary, the possibility of the quantity and quality of stress are increased, it will not reach the expected role.<sup>3</sup> Positive psychological condition of the pregnant women also have a positive impact on the mother and their fetus. However, if the condition is different, it will create bad result. Quoted from a research finding in Jamaica recently stated that there were 23.1% of pregnant women aged 13-15 years had attempted suicide once or more during the last 12 months. In addition to the behavior of suicide attempts, depression in pregnancy will also affect to fetuses well-being with increased the risk of birth with low birth weight (LBW) and disability. This situation can be seen from the changes in lifestyle, nutrition, and activity of pregnant women suffering from stress and are directly related to the fulfillment of the fetus in the womb.<sup>7, 8, 9</sup>

Therefore, they should understand the changes that occur during pregnancy, both physical and psychological and perform routine pregnancy care with health professionals. A care provided by health personnel in normal pregnancy should focus on educating and counseling about changes, growth and development of the pregnancy. The purpose of care during pregnancy is promoting on normal pregnancy, ensuring a safe delivery for mother and baby, health education about healthy life styles, education, self-care in pregnancy, partnership with her husband, family and the environment, facilitating the examination of pregnancy and preparation for parenthood.<sup>2</sup>

### **MATERIALS AND METHODS**

The method applied was a qualitative approach, which was an approach that was oriented on the natural symptoms, naturalistic and principal and conducted in the field. The study design applied a case study. The case study is a comprehensive description of different aspects of an individual, a group or a social situation. Researchers investigated carefully about events, activities, processes on a group of individuals. The research subject was taken purposively. Sampling was done deliberately in accordance with the requirements of sample required.<sup>10</sup> The main subject of this study was 8 pregnant women. The supported subject in the study was the husband of the pregnant mother and midwives in the village consisted of four people. The data was derived from the primary information. Primary data was data about changes in the psychology of pregnant women obtained directly from the main subjects. Methods of data collection was direct interviews using interview guide. This research was conducted in Public Health Center (Puskesmas) Kembaran 2 Banyumas in Ledug village, Kembaran district, Banyumas.

Analysis of data was qualitative with interactive model of Milles and Huberman, which consists of data reduction, data presentation, and conclusion in the process of collecting data in the form cycles. The collected data was then reduced, the researcher

## The 2<sup>nd</sup> International Conference of Medical & Health Sciences and The 2<sup>nd</sup> Life Sciences Conference 2016

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presented the data, and draw temporary conclusions and then came into the field. The activities was carried out until the researcher ensure the data has been saturated and could be drawn for conclusion. The stage in this analysis included the first data reduction were the selection process, focusing, simplifying, reinforcement, simplifying and data abstraction so that the final conclusions could be implemented. Second, the presentation of the data that was to assemble and organize data. Third, concluding by interpreting the information on statement notes, configuration, direction of causation and the proposition from the beginning of data collection.<sup>11, 12., 13</sup>

### RESULTS

The research findings showed that pregnant women in early pregnancy undergo psychological changes that consist of changes in emotion of joy and sadness at the same time. Reaction of excitement was expressed by pregnant women in the first time confirmed as pregnant and after examination by a midwife. Pregnant women expressed his delight by informing the closest person, the husband and her family. Since the woman was confirmed as pregnant, they had a sense of joy because it had achieved his wish, their planned pregnancy. Feeling proud of his ability to conceive and fulfil the task of getting offspring in the family. Pregnant women felt the satisfaction of being a complete woman. Pregnant women had good hopes to their fetus. These expectations included the state prosperous and perfect condition of the fetus in the womb, the normal birth process as well as the hopes of becoming a religious child (shalih/shalikhah). They thought positively about their pregnancy because they had a belief that if you had a positive mind, it would affect the perfect growth and development of the fetus. They also had confidence in obtaining a normal pregnancy if performing a routine inspection by the health workers. Most pregnant women began to feel the presence of the fetus in the womb since it was first diagnosed pregnant, and only partially feel the presence of the fetus when there was a movement of the fetus and was viewed the results of ultrasonography (USG) at the end of the first trimester of pregnancy. Pregnant women stated that they felt ready to run a new role as a mother in the first trimester of pregnancy. Readiness condition was influenced by the planned pregnancy and some have had experiences in a previous pregnancy. In the first trimester of pregnancy, a pregnant woman started to have communication with the fetus in the womb involving her husband and family. Forms of communication were performed on the fetus of touch affection in the stomach area and conveyed positive expectations.

At the same time in the first trimester of pregnancy, pregnant women also felt the pain caused by the complaints that arise due to her pregnancy, economic problems in the family, and the lack of assistance from her husband or his family. Pregnant women felt sad and troubled by complaints that raised as a result of physical changes

## The 2<sup>nd</sup> International Conference of Medical & Health Sciences and The 2<sup>nd</sup> Life Sciences Conference 2016

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in pregnancy. Complaints of nausea, morning sickness, dizziness, feeling weak on the whole body, felt disrupt in daily activities. It increased complaints of physical inability that cause relied on others in its role in the family. Pregnant women were also worried by the perceived physical complaints, anxiety related to the possible influence of physical complaints to the growth and development of the fetus in the womb. Pregnant woman thought that if nausea and dizziness were exist in early pregnancy it might affect the nutritional deficiencies of the fetus in the womb. In pregnant women who have had children before, they had no concern about the ability to perform its role to share the affection between her eldest son with the fetus in the womb. Most pregnant women had economic problems such as lack of income for living additional new family members. They believed that family income will not meet daily needs and education, although the breadwinner was her husband. Husband's lack of assistance during the first trimester of pregnancy was also a factor that causes sadness of the mother. This situation was caused because the husband worked out of the town and they must be separated, thus limiting assistance to pregnant women who require more attention from the husband or family-related changes in pregnancy.

### DISCUSSION

Diagnosis of pregnancy for a woman showed a psychological response through a form of changes in the emotion of happiness and sad at one time called the ambivalent condition. Pregnant women felt *ambivalent* with a certainty of pregnancy, and changes to a new role as a parent. In early pregnancy, a woman felt the happiness and satisfaction to himself because she felt that she has become a true woman, fertile, and ready to welcome the baby. However, in the other hand, she was worried about the fetus, how it affected their role and relationship with her husband, family and environment. For women who have had children before, she would think about increasing energy care, finance, education and the effects on the fetus.<sup>3, 5</sup> Psychological changes in pregnancy was part of the developmental a woman's task. During its development, a woman was going through a period of dynamic and learnt from the experience gained in the development tasks. Each individual would agree that the developmental task was a continuous thing. Kroch psychological theory suggested that the psychological shock experienced by every individual in carrying out the task of development. In the period of pregnancy, a woman also suffered a psychological shock condition to meet the role. Every woman, soon after being diagnosed pregnant, the first thing to do was acceptance to the fetus in the womb as part of him. In the process of acceptance, pregnant women would enter the stage of psychological shock. It could be understood from the changing role she received, from a free woman who got an affection, being a mother who gave an affection.<sup>2, 5</sup>

## The 2<sup>nd</sup> International Conference of Medical & Health Sciences and The 2<sup>nd</sup> Life Sciences Conference 2016

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According to Reva Rubin (1984),<sup>2</sup> in pregnancy, a woman has four tasks to be accomplished, first, find a way that was safe for herself and the fetus. It was done by engaging with health professionals by routine screening in pregnancy and following the procedures of the local culture. Second, ensure the reception herself and the fetus, both in the family and society. Third, learn to give and take between herself and her fetus in pregnancy care. Fourth, committed to the welfare of herself and the fetus to grow and develop in the womb during the months of pregnancy. Changes psychological and developmental tasks in pregnancy was not easily passed by a woman. Pregnant women should receive as part of her fetus to various changes, and gradually to increase her pregnancy, a woman should receive a baby that has been born as a another separate individual.<sup>2</sup>

Reva Rubin (1984),<sup>2</sup> divided the stages of psychology changes, namely, *anticipatory stage* which was a stage of socialization o a new appearance and role as a pregnant woman and her partner associated with the happiness of the fetus. In carrying out her new role, she began to change his social role through informal training or model. Maternal emotional changes associated with feelings of discomfort related to the changes of pregnancy. Emotional fluctuations of pregnant women, an estimated 80% experienced psychological changes such as a sense of disappointment, rejection, anxiety and sadness. Pregnant women would be focusing on herself and not to her fetus although she felt that the fetus was a part of him. Conditions liked these have been demanding pregnant women to reduce the routine activities in order to enjoy free time without the pressure and most of pregnant women spend their time by sleeping.<sup>3</sup>

The changing role in pregnant women associated with changes in behavior. Behavior that was not beneficial for the health of the mother was often the custom, during pregnancy should be changed. They must consider the advantages and disadvantages to the fetus. These behavioral changes in pregnant women required commitment, especially during pregnancy, many changes that caused a lot of stressors. There were many models of behavior changes, including health trust model according to Rosenstok (1974).<sup>14</sup> This theory stated that the change in behavior was influenced by, first, sufficient motivation to take action. Second, their belief that a person was prone to health problems. Third, the belief that doing something would reduce the vulnerability at an affordable cost. This theory was expanded with the theory of self-efficacy which was the belief that one was able to make such changes. During pregnancy, the achievement of a new role in pregnant women, they were going to change the behavior on the basis that they had a task to be accomplished in her pregnancy as it was called in the theory of Reva Rubin (1984).<sup>15</sup>

Emotional changes in pregnant women was a natural situation influenced by many factors. In pregnancy, pregnant women would experience emotional changes with different responses based on the factors that influenced it. These factors are

## The 2<sup>nd</sup> International Conference of Medical & Health Sciences and The 2<sup>nd</sup> Life Sciences Conference 2016

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maternal age, marital status, pregnancy planning, history of previous pregnancies, history of miscarriage, disability, socioeconomic conditions, maternal health status, social relations, and social support. These factors affected the severity of the emotional changes in the mother in pursuing her role.<sup>16, 17</sup> The gestation period was a period of transition with a variety of physiological changes which were complex and challenging. It took a psychological comprehensive effort, social and physical effort. Pregnant women who had received her new role, and has received a fetus as part of themselves, they needed to be given access to reproductive health care and integrated health interventions psychologically, including the acceptance of his behavior, partnership and counseling.<sup>18</sup> Psychological care given early in pregnancy would have a positive impact on the pregnancy. In addition, early psychological care could also detect abnormalities in pregnancy psychological behavior. Integrated cares between physical and psychological could evaluate the risk factors for depressive symptoms in pregnancy. The health worker must do the screening signs and symptoms of psychological changes in early pregnancy care visits to determine which types of psychological care would be given to pregnant women.<sup>19</sup> The health worker should be able to do counseling based on the psychological condition of pregnant women. Health workers who facilitated psychological care from early pregnancy had a positive influence on survival in the final trimester of her pregnancy, even influence the delivery process.<sup>20</sup> The development of pregnancy have *mind-body* connection, the growth and development of the pregnancy would affect the achievement of the mother's role as a parent. These findings provided support for health workers to provide pregnancy care which was not only focused on the physical, but also psychological aspects. Care focused on the psychological aspects of pregnancy could reduce anxiety and worry caused by changes in pregnancy.<sup>21</sup>

### CONCLUSION

Pregnancy is a unique event that involves psychological changes in women. In the first trimester of pregnancy, pregnant women would experience antisipatory stage which was a stage in the achievement of the new role of parenthood. Adaptation to a new role in the first trimester of pregnancy was achieved when a pregnant woman has received a fetus in the womb as part of her.

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# The 2<sup>nd</sup> International Conference of Medical & Health Sciences and The 2<sup>nd</sup> Life Sciences Conference 2016

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**The 2<sup>nd</sup> International Conference of Medical & Health Sciences  
and  
The 2<sup>nd</sup> Life Sciences Conference 2016**

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