



ISBN 978-602-99020-8-2

THE 3rd JOINT INTERNATIONAL CONFERENCE 2021

After Covid-19 Pandemic:
Health and Education
System Resilience

Proceeding Book of Abstract
The 3rd Joint International Conference

Venue Universitas Pesantren Tinggi Darul Ulum Jombang - East Java

November 17th – 18th , 2021

PROCEEDING BOOK OF
THE 3rd JOINT INTERNATIONAL CONFERENCE
JOMBANG, 17 -18 NOVEMBER 2021

AFTER COVID-19 PANDEMIC: HEALTH AND EDUCATION SYSTEM
RESILIENCE

UNIPDU PRESS

Komplek Pesantren Darul Ulum, Peterongan Jombang 61481 Telp.0321-855681 Fax:
0321-876771 Email: Press@Unipdu.Ac.Id



COMMITTEE

I. Steering Committee (SC)

1. Pujiani, S. Kep. Ns, M.Kes. (Dean of FIK Unipdu Jombang)
2. Dr. dr. Sentot Imam Suprpto., MM. (Rector of IIK Strada Kediri)
3. Ita Eko Suparni, SSiT., M. Keb. (Chairman of Stikes Karya Husada Kediri)
4. Dr. H. Yitno, SK.p., M. Pd. (Chairman of Stikes Hutama Abdi Husada Tulungagung)
5. Selvia David Richard, S.Kep., Ns., M.Kep (Chairman of Stikes RS Baptis Kediri)
6. Ahmad Wasis Setyadi, S.Kep.Ns., M.Si., MPH. (Chairman of Stikes Bakti Mulia Pare Kediri)
7. Heny Kristanto, S.Kp, M.Kes. (Director of Akademi Keperawatan Dharma Husada Kediri)
8. Siti Komariah, S.SiT. M. Kes. (Director of Akademi Kebidanan Dharma Husada Kediri)

II. Organizing Committee (OC)

Chairman I	: Andi Yudianto, S. Kep. Ns, M.Kes.	FIK Unipdu Jombang
Chairman II	: Dr. Indasah Ir. M. Kes	IIK Strada Indonesia Kediri
Secretary I	: Luluk Mahfiah, S.P.	FIK Unipdu Jombang
Secretary II	: Srinalesti Mahanani, S.Kep., Ns., M.Kep	Stikes RS Baptis Kediri
Treasurer I	: Hj. Mas'adah Endang Susilowati, S.AB.	FIK Unipdu Jombang
Treasurer II	: Efa Nur Aini, M. Kep.	Stikes Karya Husada Kediri
1. Program Chairs	: Siti Urifah, S. Kep. Ns., M.N.S.	FIK Unipdu Jombang
	Zulfa Khusniyah, S. Kep. Ns., M.Kep.	FIK Unipdu Jombang
	Ana Farida Ulfa, S. Kep. Ns., M. Kep.	FIK Unipdu Jombang
	Febrina Dwi Nurcahyanti, S.ST.,MPH	Stikes Bakti Mulia Pare Kediri
	Riza Yuliawati, S.KM., MPH (Extn)	IIK Strada Indonesia Kediri
	Anis Murniati, S.Kep.Ners., M.Biomed	Stikes HAH Tulungagung
2. Publicity and Sponsorship Chairs :		
	Abdul Ghofar, S. Kep. Ns., M. Pd.I	FIK Unipdu Jombang
	Hengky Irawan S.Kep.Ns, M.Kes	Akper Dharma Husada Kediri
	Ahmat Ariyanto, ST.	Stikes Karya Husada Kediri
	Evi Tunjung F., S. Kep, Ners., M.Kep., Sp.Kep.J	Stikes HAH Tulungagung
	Yoyok Febrijanto, M.Pd.	Stikes RS Baptis Kediri
	Junianto Fitriyadi, S.Kep.Ns., M.Kep.	Stikes Bakti Mulia Pare Kediri



3. Scientific Chairs :

Dr. Herin Mawarti, S. Kep. Ns., M. Biomed.	FIK Unipdu Jombang
Khotimah, S. Kep. Ns., M. Kes.	FIK Unipdu Jombang
Dr. Farida, SKM., M.Kep.	Stikes HAH Tulungagung
Dwi Rahayu, S.Kep.Ns, M.Kep	Akper Dharma Husada Kediri
Mika Vernicia Humairo, S.KM.,M.P.H.	IIK Strada Kediri
Siti Asiyah, SST. M. Kes.	Stikes Karya Husada Kediri
Desi Natalia T.I, S.Kep., Ns., M.Kep	Stikes RS Baptis Kediri
Endah Susanti, S.ST.,MPH.,M.Keb	Stikes Bakti Mulia Pare Kediri
Nining Istighosah, SST., M.Keb	Akbid Dharma Husada Kediri

4. Accommodation, Decorations & Documentation Chairs :

Suyati, S.ST., M. Kes.	FIK Unipdu Jombang
Helmi Annuchasary, SKM.	FIK Unipdu Jombang
Khamim Mansyur, S.AB.	FIK Unipdu Jombang

5. Conference Chairs :

Mokhammad David Andianto, S. Kep., Ns.	FIK Unipdu Jombang
Dwi Setyorini, S. Kep. Ns. M. Biomed.	Stikes Karya Husada Kediri
Amita Audilla, S.Kep., Ners., M.Kep	Stikes HAH Tulungagung
Bhayu Febrijanto, ST.	Stikes RS Baptis Kediri
Rofik Darmayanti, SSiT., M.Kes.	Akbid Dharma Husada Kediri
Rischar Beny Riswanto, S.Kep.Ns.,M.Kep.	Stikes Bakti Mulia Pare Kediri

PROCEEDING BOOK OF
THE 3rd JOINT INTERNATIONAL CONFERENCE

AFTER COVID-19 PANDEMIC: HEALTH AND EDUCATION SYSTEM
RESILIENCE

Reviewer:

Assistant Professor Dr. Supapak Phetrasuwan Mahidol University Of Thailand
Prof. Chiou-Feng Lin, Ph.D Taipei Medical University, Taiwan
Dr. Kaeleen Dingle, Phd, MPH (Trophlth) Beduc RN Queensland University Of
Technology (QUT), Brisbane, Australia
Dr Jerico F Pardosi, Phd Queensland University Of Technology (QUT), Brisbane,
Australia
Dr. Barbara Richardson, DNP, RN, ARNP, FNP-C Lee University America
Dr. Michelle White, DNP, RN, APRN, FNP-BC Lee University America
Dr. Masruroh. S.Kep., Ns., M.Kes Nursing Lecturer Of University Of Pesantren Tinggi
Darul Ulum, Indonesia
Dr. Yuli Peristiowati., Ns., M.Kes Nursing Lecturer Of IIK STRADA Indonesia

Editor In Chief

Dr. Herin Mawarti, S.Kep., Ners., M.Biomed

Editorial Board

Dwi Rahayu, S.Kep., Ns.,M.Kep
Mika Vernicia Humairo, S.KM.,M.P.H
Nining Istighosah SST, M.Keb
Desi Natalia T.I, S.Kep., Ns., M.Kep
Mukhoirotin, S.Kep., Ns.,M.Kep
Dian Puspitayani, SST., M.Kes
Diah Ayu, S. Kep., Ns., M.Kep
M. Rajin, S. Kep., Ns.,M.Kes

Setting/Layout

M. David Andianto, S.Kep.Ners

Publisher

UNIPDU PRESS

Komplek Pesantren Darul Ulum, Peterongan Jombang 61481

Telp.0321-855681 Fax: 0321-876771 Email: press@Unipdu.Ac.Id



PREFACE

Coronavirus disease, known as Covid-19, is a deadly virus that affects the world population, and cause a Pandemic since early of 2019. In Indonesia, about 3.8 million people are diagnosed with COVID-19, with more than 30,000 and 115,000 deaths due to this virus. Many Countries have been implementing numerous strategies to fight the pandemic; however, the virus remains uncontrol for almost two years.

This pandemic has shocking effects on all countries globally and weakens all systems in every country, especially the health and education system. The research findings show that 80% of cases are mild, 15% of people experience severe cases, and the other 5% become critically suffering (septic shock, respiratory and organ failure). The number of hospitalization is also challenging. According to UNICEF, at least 98.5% of the world's student population experienced new school policies, such as school closures, distance learning, and no school interaction. Long school closures and distancing learning will affect their graduation careers, skills and future. In addition, graduates will face severe challenges from the global recession due to the COVID-19 pandemic.

Therefore, the committee initiated the international conference by inviting experts and leaders around the world. The 3rd Joint International Conference will be held to organize a Global discussion, ideas and innovations are critically needed to improve the current responding strategies of COVID-19 in the health and education system.

Jombang, September 2021

Pujiani, S.Kep.Ns., M.Kes.
Dean of Faculty of Health Science
University of Pesantren Tinggi Darul Ulum

TABLE OF CONTENT

Cover	i
Preface	ii
Relation Between Stress Level During Study From Home (SFH) And Menstrual Cycle On University Students Of Regular Midwifery Department Program At STIKES Karya Husada Kediri. (<i>Tintin Hariyani, Devi Nurmayanti</i>)	1
Characteristics of Stroke Patients in Outpatient: An Analytical Descriptive . (<i>Joko Susanto, Makhfudli Makhfudli, Ah. Yusuf, Ilkafah Ilkafah, Amellia Mardhika</i>).....	7
Correlation of Nutritional Status with The Degree of Diarrhea in Toddlers in Srikandi Room at RSUD Jombang. (<i>Pujiani, Arys Widya Astutik, Andi Yudianto, Ana Farida Ulfa, Zulfikar As'ad</i>).....	16
The Effectiveness of Zinc Supplementation on Z-Score Index Changes in Stunting Children (<i>Brivian Florentis Yustanta</i>)	25
Stress And Coupling Mechanism In Postpartum Mothers Ethnography Study On Postpartum Mothers In Darungan Village, Pare District, Kediri Regency (<i>Ratna Hidayati</i>)	32
Dyad Model as a Caring Innovation in High Risk Pregnancy (<i>Sri Wahyuni, Moses Glorino Rumambo Pandin, Nursalam Nursalam</i>)	38
Ramatasya Meditation To Reduce Psychological Distress Of Chronic Kidney Failure (CKF) Patients In The Hemodialysis Room (<i>Moch. Maftuchul Huda., Melani Kartika Sari, Novita Rahayuningtyas</i>)	49
Breastfeeding Techniques In Babies Aged 0-6 Months In The New Normal Era (<i>Dwi Ertiana, Dewi Taurisiawati Rahayu, Novia Beauty Puspitasari</i>)	58
The Improvement of Compliance with Catheter Traction Treatment Through Leaflet	

Media Education as an Effort to Prevent Post-BPH Surgery Syndrome (<i>Khotimah, Rubianing, Wiwiek Widiatie, Achmad Zakaria</i>)	67
IPCN (Infection Prevention Control Nurse) Monitoring Function With The PPI Implementation (<i>Widyasih Sunaringtyas, Diana Rachmania; Didit Damayanti</i>)	73
The Correlation Between Menopausal Women's Motivation and Regular Visits to The Elderly Health Care Center (<i>Aprilia Nurtika Sari, Nining Istighosah</i>)	79
Relationship Between Mom Anxiety Towards Covid-19 With Breast Milk Production (<i>Siti Asiyah, Frischa Budi Chrisdamayanti</i>)	85
An Overview of The Organoleptic Assessment of Herbal Teas with the addition of Stevia leaves (<i>Zauhani Kusnul, Moh. Ikhwan Kosasih</i>)	93
The Effect of Abelmoschus Esculentus Infused Water Therapy for Hypertension (<i>Anis Murniati</i>)	98
Knowledge About Breastfeeding Techniques to The Event of Nipple Blister (<i>Wuri Widi Astuti, Linda Andri Mustofa, Mareming Ati</i>)	102
Health Education Program In Menopause To Improve The Quality of Life (QoL) of Menopausal Women In Covid-19 Pandemic In Kediri East Java (<i>Mirthasari Palupi, Reni Yuli Astutik</i>)	106
Intermittent Exercise in Reducing Glucose Levels in Type 2 Diabetes Mellitus Patients (<i>Dhina Widayati, Nian Afrian Nuari</i>)	113
Literature Review : Covid 19 & Pregnancy (<i>Ita Eko Suparni</i>)	120
Aspects of Spirituality with People's Stress Levels During the Covid-19 Pandemic (<i>Wahyu Tanoto, Nurul Laili, Sutiya Heni</i>)	127
Effect of Elderly Exercise on Blood Pressure of Hypertensive Elderly (<i>Sufendi Hariyanto, Andi Yudianto, Zuliani, Kurniawati</i>)	134

Use of Neuropathy System Score (NSS) in Measuring Peripheral Neuropathy in Diabetes Mellitus (<i>Zuliani, Kurniawati, Sufendi Hariyanto</i>).....	141
Knowledge and Attitudes about Handling Mental Health Problems of the Implementing Team in Community (<i>Fajar Rinawati, Novita Setyowati, Sucipto Sucipto</i>)	148
Survey on Knowledge of Women in Reproductive Age About Long-Term Contraceptive Methods (<i>Widya Kusumawati, Lely Khulafa 'ur Rosidah</i>).....	153
Birth Ball The Effect Of Exercise On The Reduction Of Labor Pain When I Phase I Active (<i>Yunarsih ., Erna Susilowati, Dyah Ika K</i>)	157
Influence of First Aid Training on The Level of Knowledge of Handling Victims For Indonesian Red Cross Volunteers in East Java Province (<i>Hengky irawan, Dwi Rahayu, Puguh Santoso, Moh Alimansur</i>)	164
Red Dragon Fruit Effectiveness On Decrease Blood Glucose Levels In Patients Type II Diabetes Mellitus In Kepatihan (<i>Berlian Yuli Saputri, Ikke Widya Saraswati</i>).....	169
Activity Test of Infused Water Okra to Wards Reduction of Blood Sugar Levels in Type II Diabetes Mellitus Patients in Gondang Tulungagung Village (<i>Dewi Zuniawati</i>)	175
Effectiveness of Construction Play on Sibling Rivalry Reaction in Preschool Age Children (<i>Dwi Retnowati, Ria</i>)	181
Student Coping Strategies in Facing Changes during the COVID-19 Pandemic (A Case Study about Lecturing System in STIKes Utama Abdi Husada Tulungagung) (<i>Evi Tunjung Fitriani</i>).....	187

The Effectiveness of Giving Temulawak Extract Against Increasing Application to Tools Aged 3-5 Years at Posyandu I Sumberejo Wetan Village Ngunut Tulungagung (Ketjuk Herminaju, Pinggih Lubiantori, Berlian Yuli Saputri)	191
Correlation of Self-Forgiveness with Quality of Live in HIV/AIDS Patients, Tulungagung (Lasman)	196
Effect Therapeutic Touch on Anxiety Patients With Chronic Kidneys Diseases (CKD) With Hemodialysis (Purnomo, Maksum, Devangga Darma Karingga)	204
The Effectiveness of Counseling on the Characteristics of Cerebro Vascular Accident Attack in Golden Period Stage to Quick Attitude to Family Response With Hypertension (Ria Anggraini, Nyoto Nursani, Dwi Retnowati).....	213
Early Contingency Training of Diasaster Mitigation Influenced Community Preparedness of Disaster Earthquake in Nggeger, Sendang, Tulungagung (Siti Nurhasanah, Poppy Farasari)	219
The Effectiveness Of Diabetes Exercise With Ergonomic Exercise On Blood Sugar Levels In Diabetes Mellitus Clients At The Indonesian Diabetes Unit Clinic (Persadia) Tulungagung (Yitno, Yayuk Wahyuti)	223
Correlation of Knowledge and Health Behaviour about Covid-19 Protocol of Patient's Families at Irna Shafa, RSUI ORPEHA, Tulungagung (Farida Farida, Rischa Hermawati).....	233
The Effect Of Relaxation Techniques And Warm Compresses On Reducing Disminorore Pain In Adolescents (Nurhidayati, Fiki Hesti Eni)	242
The Influence of Education Health on The Handling of Address The Crisis Fracture Spina servikal in Accidents Traffic with The Methods Roleplay to Knowledge Member	

of The Club a Motor (<i>Suciati, Evania Dyita Hastuti</i>).....	249
Correlation of Repeat Cooking Oil Use to Increasing Cholesterol Levels in Community, Gandong Village, Bandung District, Tulungagung Regency in 2021 (<i>Surtini, Zainatul Badriyah</i>).....	254
Complementary Therapy For Treatment of Post Traumatic Stress Disorder (PTSD) : A Literature Review (<i>Fitrio Deviantony, Ayunda Putri Rizanti, Ilany Nadia Chandra, Rahma Maratus</i>)	260
The Relationship of The Absence of a Spouse with The Level of Stress in TheElderly at The Tresna Social Service UPT Werdha Blitar in Tulungagung (<i>Suharyoto, Avinda Yunikasari, Nurhidayati, Yitno</i>).....	270
Impact Of Work Posture On Musculoskeletal Disorder In Nurses (<i>Kushariyadi, Mulia Hakam, Norma Nabilah</i>).....	278
Swedish Foot Massage Therapy For The Treatment Of Blood Pressure And Pulse Rate In Hypertension (<i>Mulia Hakam, Kushariyadi, Riska Indah Permatasari</i>).....	283
The Multivariate Analysis Of Health Determinants On Compliance With Drug Drinking In Hypertension Patients At Pratama Mitra Clinic 02 (<i>Yeni Wahyu Cristina, Koesnadi, Mika Vernicia Humairo, Sandu Siyoto</i>).....	291
The Effect of Expressive Writing Therapy to The Stress Level on Class IX Students Ahead of The National Exam (<i>Arif Setyawan, Nirmal KS, Marina Risky Novira</i>).....	300
Vinegar Acid As Binder To Heavy Metals LeadAnd Cadmium In Kupang (<i>Indasah Kabul</i>)	306
Explore Exploratory Experiences Arising from Labor Trauma with Severe Pre- Eclampsia / Eclampsia in Public Health Center Bendo Pare Kediri District (<i>Shinta Dyah laksana, Astrichia Djesintha Pah</i>).....	313

Effectiveness of Tui Na Massage in Increasing Appetite Infants Aged 1-5 Years in The Work Area UPTD Puskesmas Bendo Kediri Regency (Astri Yunita, Silfia Sekar AMES, Yunita Wori Hana).....	321
The Relationship of Exclusive Assessment with Stunting Events in Children Aged 2-5 Years in Uptd Ngadi Health Center, Kediri District (Sulistyo Dewi Wahyu Rini, Hakim Tobroni HR, Ahmad Hanapi).....	329
Analyze Multivariate There Was a Relationship Between The Incidence of Stunting Infants Aged 2-5 Years (Endah Susanti, Rischar Beny Riswanto, Veronika Ina Kii)	337
Relationship of Free Speaking Learning Method with The Development of Language Communication to Pre-School Children in Santa Maria Kindergarten Pare Kediri (Febrina Dwi Nurcahyanti, Dily Ekasari, Maria Oktaviyani Nahak).....	343
Analysis of Anxiety on the Choice of Birthing Place During Covid-19 Pandemic in Sepanjang Village, Gondanglegi District, Malang Regency (Suci Anggraeni, Eli Dwi Lestari, Nuryeny Hidajaturokhmamah).....	350
The Relationship of Environmental Sanitation and Family Attitudes with Events of Dengue Hemorrhagic Fever (DHF) (Nanang Muhibuddin, Rischar Beny Riswanto, Ambu Kareri Hara).....	357
The Effect of Kegel Exercises on The Frequency of Urination in The Elderly in UPSTW Jombang in Pare (Rischar Beny Riswanto, Nanang Muhibuddin, Novince Mangngi).....	363
Effectiveness of Gallery Walk Learning Method in The Class of Pregnant Women to The Knowledge of Pregnant Women about Pregnancy Danger Signs in The Region of Tulungrejo Village (Pramitha Sandy Ulya, Astri Yunita).....	367
Attitudes and Knowledge about The Covid-19 Pandemic of Members of The Gbi Bukit Pengharapan Kediri Congregation (Dewi Ika Sari Hari Poernomo, Sandy Kurniajati).....	373

Analysis of Pregnant Women Class With Childbirth Preparation During the Pandemic Period at the Wajak Health Center Malang Regency (<i>Nur Yeny Hidajaturokhmah, Suci Anggraeni, Yamini</i>).....	379
The Effect of Progressive Muscle Relaxation Therapy of Pregnant Women's Anxiety with Gestational Hipertension in Bendo Community Health Center Kediri Regency (<i>Dily Ekasari, Febrina Dwi Nurcahyanti, Atriani Sriwahyuni Dere</i>)	388
The Effect Of Murottal Combination Progressive Muscle Relaxation On Stress Level In The Elderly At Lks-Lu, Kasembon Village, Malang Regency (<i>Ahmad Wasis Setyadi, Rischar Beny Riswanto, Zainur Rofiq</i>)	393
Analysis of Food Diversity Consumption in Stunting Toddlers (<i>Lia Agustin, Dian Rahmawati, Yunda Dwi Jayanti</i>)	401
The Attitude of Mother in Prevention Efforts Stunting in Toddlers Aged 2-3 Years in Bangkok Village, Gurah District, Kediri Regency (<i>Betristasia Puspitasari, Rofik Darmayanti</i>)	405
Developing ESP Nursing Based on CLT in STIKES RS Baptis Kediri (<i>Yoyok Febrijanto, Erva Elli Kristanti</i>)	410
Negative Social Stigma Impact on Nurses' Anxiety (In The Covid-19 Pandemic Disaster)	420
Analysis of Factors Related to Mortality in Hemorrhagic Stroke Patients (<i>Heru Suwardianto, Selvia David Richard</i>).....	425
The Level of Knowledge of Pregnant Women About COVID-19 Pandemic in Ngumpul District, Jogoroto, Jombang (<i>Vivin Eka Rahmawati, Sabrina Dwi Prihartini, Helmi Annuchasari</i>)	432
The Correlation of Community's Perception and Anxiety of Adverse Events Following Immunisation Covid-19 in The City District Kediri City (<i>Erma Herdyana, Siti Komariyah</i>).....	436
Food Safety Analysis Based on Food Handlers at Girl Islamic Boarding School Hidayatul Mubtadia'at Lirboyoy	

<i>(Panca Radono, Anie Sofia Africhiati)</i>	443
Perception, Interest and Quality of Comprehensive Emergency Neonatal Obstetry Services Towards Patient's Satisfaction at Moh. Anwar General Hospital Sumenep District	
<i>(Darmawan Eko Setyant, Sentot Imam Suprpto)</i>	449
An Analisis of Marketing Strategy by Using Internal Factors Analysis Summary (IFAS) and External Factors Analysis Summary (EFAS) for Evaluation Effort at Klinik Sinar Medika Plosoklaten	
<i>(Ardi Bastian, Hida Shallyana)</i>	458
Determinants of Improved Nutritional Status in Toddlers With Micronutrient Consumption Patterns in Gleno Internment Center Municipality of Ermera East Timor	
<i>(Jose de Deus, Nurwijayanti, Siti Farida Nur Layla, Yenny Puspitasari)</i>	466
Progressive Relaxation to Changes in Blood Pressure and Sleep Quality in Ladies of Hypertension Patients	
<i>(Soni Patriot Wira Atmanegara, Byba Melda Suhita, Nurdina)</i>	474
Health Education on Knowledge of The Prevention of Covid-19 Transmission in The Church Community	
<i>(Aries Wahyuningsih, Kusuma Dewi Palupi)</i>	480
The Effect of Counseling on Prevention Covid 19 Using the Video Call Whatsapp Application on Compliance with the Use of Masks at Families in Kandangan Village	
<i>(Junianto Fitriyadi, Arif Setyawan, Silvy Eka Putri)</i>	484
The Disruptions of Maternal Health Care Service Utilization during Covid-19 Pandemic	
<i>(Susiani Endarwati; Lely Khulafaur Rasyidah, Rahma Novita Asdary)</i>	492
Relationship of Nurse Motivation Factors With Discharge Planning Implementation During COVID-19 In the Inpatient Unit of RSKM	
<i>(Indah Mukarromah, Sih Mirah, Zulfa Khusniyah)</i>	498
The Difference Between Giving Breast Milk and Complementary Foods to Breasts Milk	

with Nutritional Status in Infants Aged 6-24 Months in The Puskesmas Pare Working Area (<i>Silfia Sekar AMES, Astri Yunita, Alfonsa Malayat</i>)	504
---	-----

The Disruptions of Maternal Health Care Service Utilization during Covid-19 Pandemic

Susiani Endarwati^{1*}, Lely Khulafa'ur Rosidah^{1*}, Rahma Novita Asdary¹

¹Akademi Kebidanan Dharma Husada Kediri, Kediri, Jawa Timur

*susianie@akbiddharmahusadakdr.ac.id

ABSTRACT

Keywords:

Covid-19,
Covid Pandemic,
Maternal Health Care
Utilization, IHME

Background: The novel coronavirus (COVID-19), has both direct and indirect effects on key health services in multiple parts of the world, potentially leading to increased morbidity and death at various levels. Despite concerted global attempts to contain the pandemic, the virus is spreading in several countries. As a result, the extent of interruption to a variety of maternal health care services was measured in this study.

Methods: We used the data from the Institute for Health Metrics and Evaluation (IHME) 2020. The COVID-19 Health Services Disruption Survey 2020 was a series of surveys designed to examine the amount of disruption to a variety of health services caused by the COVID-19 worldwide pandemic. The cross-sectional individual data among 76 countries were smartphone-based Premise data-collecting technology. This study involved 667 respondents, who were pregnant or had given birth during the previous 6 months at the time of the survey (July 2020). The variables analyzed descriptively included times ANC planned and attempted, type of health facility visited during birth delivery, birth attendants, services the newborn received following the delivery.

Results: Of 667 respondents, 50.54% were at the age of 16-25, 45.13% graduated from college, and live in the city center or metropolitan area (39.28%). 17.54% didn't attend the ANC, thus the ANC4 coverage was 9.75%. The closure of a health facility and a lack of funds were two major reasons they did not attend ANC (65.169.68%) respectively). Hospitals were the top among facility-based delivery and 70.48% of them were attended by doctors.

Conclusion: ANC coverage was impacted by the Covid-19 pandemic due to the health facility closure, economic disruption, and transportation unavailability

Copyright © 2021 Joint International Conference
All rights reserved.

I. INTRODUCTION

The novel coronavirus (COVID-19), has both direct and indirect effects on key health services in multiple parts of the world, potentially leading to increased morbidity and death at various levels. There have been concerns about potential disruptions in the delivery of key health services since the beginning of the COVID-19 outbreak. In a May–July pulse survey of health officials in 105 countries, 90% indicated some level of interruption as a result of the epidemic, with a wide range of services affected (1). There is an increase from 71% (in 2007-2013) to 83% (in 2014-2020) of births worldwide that were assisted by skilled health professionals, including doctors, nurses, and midwives. The COVID-19 pandemic may reverse gains in skilled childbirth care coverage and disrupt maternity health services. While the full extent of the pandemic's influence on child survival is unknown, considerable disruption in the provision of life-saving measures could delay or even reverse progress. The global adolescent birth rate has decreased from 56/1,000 adolescent women aged 15-19 in 2000 to 45/1,000 adolescents in 2015 and 41/1,000 in 2020. The losses varied greatly across areas, with Central and Southern Asia experiencing the greatest drop, from 70/1,000 adolescents in 2000 to 24/1,000 in 2020 (2).

Research looking at a broader range of services has yielded mixed results. A review of primary health clinics in rural South Africa found that lockdown measures had no effect on total visits but did identify decreases in pediatric healthcare visits (3). A comparative assessment of monthly service utilization data from 2019 to 2020 in Kenya indicates no substantial changes in hospital attendance for Antenatal Care (ANC), birth deliveries, family planning counseling, and other services; however, it identified increases in both adolescent pregnancy and family planning uptake among adolescents (4). During the COVID-19 epidemic in Rwanda, access to and usage of basic maternal and child health (MCH) services were dramatically impacted. Utilization of 15 MCH services in all four categories — ANC service utilization, birth deliveries, postnatal care (PNC), and immunizations — significantly decreased (5).

After correcting for the secular trend and seasonality, significant declines in health service utilization are anticipated in countries for at least one service between January 2018 and February 2020. Reduced utilization of maternal health services is less widespread, while considerable decreases in institutional deliveries, prenatal care, and postnatal care have been observed in some countries (6). During the COVID-19 pandemic, ANC disruption was widespread and associated with clinically heightened sadness, anxiety, and pregnancy-related anxiety symptoms. 89% of pregnant women reported at least one pandemic-related alteration in their ANC. The inability to have support persons attend prenatal sessions (90.6%) and cancellations of prenatal care appointments were the most prevalent of these disruptions (40%) (7).

Despite concerted global attempts to contain the pandemic, the virus is spreading in several countries. Because women and children are vulnerable groups who may be more likely to suffer negative outcomes as a result of disruptions, this study aimed to measure the extent of interruption to a variety of maternal health care services during the Covid-19 pandemic.

II. METHOD

We used the data from the Institute for Health Metrics and Evaluation (IHME) 2020 (8). The COVID-19 Health Services Disruption Survey 2020 was a series of surveys designed to examine the amount of disruption to a variety of health services caused by the COVID-19 worldwide pandemic. The cross-sectional individual data among 76 countries were smartphone-based Premise data-collecting technology.

Sampling

This study involved 667 respondents, who were pregnant or had given birth during the previous 6 months at the time of the survey (July 2020). Since the purpose of this survey was to assess the extent of disruption to health services experienced by pregnant women and women who have recently given birth, respondents were selected based on their country of residence and pregnancy/birth history. These inclusion criteria were implemented throughout two sampling sessions. First, the survey was restricted to Premise network users who identified as female and were affiliated with any of the 76 countries where the study was performed. Second, all users who met the above criteria were sent a short survey in which they were asked whether they were presently pregnant or had given birth within the previous 6 months. This survey's sampling approach does not produce a representative sample.

Data

This dataset is freely available to the public which the information has been de-identified. In compliance with IHME's microdata release protocol, no personally identifying information was collected for his study; nevertheless, several variables with open-text responses were replaced with "XXXX" to remove potentially sensitive information or unrelated comments.

Analysis

The variables analyzed descriptively included times ANC planned and attempted, type of health facility visited during birth delivery, birth attendants, services the newborn received following the delivery.

III. RESULT

Of 667 respondents, 50.54% were at the age of 16-25, 45.13% graduated from college, and live in the city center or metropolitan area (39.28%) as explained in Table 1.

Table 1 Demographic Characteristic

Indicator	N	%
<i>Health Centre</i>		
Health facility	103	15.44228
Home	27	4.047976
Hospital	525	78.71064
Other	12	1.7991
<i>Age</i>		
Under 16	4	0.60%
16 to 25 years old	337	50.52%
26 to 35 years old	277	41.53%
36 to 45 years old	43	6.45%
Over 45 years old	6	0.90%
<i>Geography</i>		
City center or metropolitan area	262	39.28%
Suburban/Peri-urban	117	17.54%
Rural	228	34.18%
<i>Education</i>		
No formal education	9	1.35%
Primary school	21	3.15%
Secondary/high school	213	31.93%
Technical school	72	10.79%
College or university	301	45.13%
Post graduate	40	6.00%
NA	11	1.65%
<i>Employment</i>		
Employed full-time	150	22.49%
Employed part-time	69	10.34%
Self-employed	96	14.39%
Student and work part-time	28	4.20%
Student	76	11.39%
Retired	6	0.90%
Unemployed	242	36.28%

Table 2 ANC Frequency Attendance

ANC Plan	n	%	ANC Attended	n	%
0	156	23.39%	0	117	17.54%
1	79	11.84%	1	96	14.39%
2	114	17.09%	2	135	20.24%
3	133	19.94%	3	146	21.89%
4	76	11.39%	4	65	9.75%
5	36	5.40%	5	33	4.95%
6	28	4.20%	6	30	4.50%
7	6	0.90%	7	8	1.20%
8	10	1.50%	8	9	1.35%
9	11	1.65%	9	7	1.05%

10	4	0.60%	10	5	0.75%
11	2	0.30%	11	0	0.00%
12	1	0.15%	12	2	0.30%
13	0	0.00%	13	0	0.00%
14	0	0.00%	14	1	0.15%
15 or more	11	1.65%	15 or more	13	1.95%
	667	100.00%		667	100.00%

From Table 2 17.54% of the women didn't attend the ANC during their pregnancy, thus the ANC₄ coverage was 9.75% and ANC₈ was only 1.35%.

The reason behind the incompleteness of ANC among those who attended (Table 3) was the closure of a health facility (65.16%) and lack of funds (9.68%).

Table 3 Reasons of the ANC visit incompleteness

Reasons	N	%
Health facility closed	303	65.16%
Turned away from health facility	17	3.66%
Treatment unavailable	19	4.09%
No transportation	22	4.73%
Lack of money	45	9.68%
Partner or family does not approve	6	1.29%
I did not have a visit planned	42	9.03%
Other	11	2.37%

Table 4 shows that hospitals were the top among facility-based delivery and 70.48% of them were attended by doctors

Table 4 Facility Based Delivery

Birth Attendant	Hospital		Health Facility		Home		Other	
	n	%	n	%	n	%	n	%
Community health worker	0	0.00%	1	0.97%	1	3.70%	1	8.33%
Doctor	370	70.48%	34	33.01%	9	33.33%	2	16.67%
Midwife	108	20.57%	59	57.28%	11	40.74%	5	41.67%
Nurse	40	7.62%	8	7.77%	3	11.11%	1	8.33%
Other	6	1.14%	0	0.00%	2	7.41%	3	25.00%
Relative	1	0.19%	1	0.97%	0	0.00%	0	0.00%
Traditional Healer	0	0.00%	0	0.00%	1	3.70%	0	0.00%
Total	525	78.71%	103	15.44%	27	4.05%	12	1.80%

IV. DUSCUSSION

Issues related developing countries health systems capacity to provide key health services during the COVID-19 pandemic are reasonable. The most substantial and consistent disruptions were reported for the adherence of ANC visits during pandemic. According to the former World Health Organization (WHO) recommended Focused Antenatal Care (FANC) Model, a pregnant woman should receive at least four ANC visits under normal conditions. The recommendation being adopted by several countries, such as Indonesia who released Ministerial Regulation No. 97/2014, women must receive qualified and comprehensive ANC to have a healthy and safe birth. During pregnancy, the government advises at least four ANC visits (ANC₄): one during the first trimester, one during the second trimester, and two during the third trimester (9,10). Recently, WHO released "the 2016 WHO ANC model" (ANC₈) which includes a new set of guidelines to improve the quality of ANC, hence lowering the risk of stillbirths and problems and ensuring a good pregnant experience. The new WHO model suggests at least eight encounters. The 2016 WHO ANC Model includes 4+ ANC encounters that contribute to the achievement of the SDGs, which seek to reduce maternal and child mortality, ANC at

health facility, and delivery by a qualified birth attendant are key measures of maternal health care in efforts to prevent maternal and newborn mortality (11).

Almost eighteen percent of the women didn't attend the ANC during their pregnancy even though 12.82% of them initially planned for ANC visit, and the rest did not plan to have any ANC visit. Given the change in WHO guidelines from ANC₄ to ANC₈ in 2016, we provide both data. There was only 9.75% ANC₄ coverage and ANC₈ was only 1.35% of the total sample.

Many women were left without access to moment maternal and reproductive health care, including basic gynecological examinations, prenatal care, and abortion, due to the temporary closure of outpatient clinics under shelter at home orders. According to previous researches, many maternal and newborn healthcare providers worldwide did not receive Covid-19 training from their health facility, and 53% of participants in LMICS and 31% in HICs did not feel knowledgeable in how to care for a Covid-19 maternity patient; 90% of participants reported higher stress levels. This lack of training and confidence hampered care quality, which was exacerbated by staff and supply constraints. Many facilities have been left without access to drugs or blood products, which are crucial for managing postpartum hemorrhage (12–14).

One of the reasons behind the incompleteness of the ANC visit was the lack of funds. Women faced economic distress as a result of lost jobs, limited care, and health services, overwhelmed health systems, restricted travel, and shifting priorities at the primary care level during the pandemic. During the current epidemic, the economic crisis has had a significant impact on persons from lower socioeconomic strata. Many of the social and economic effects of the COVID-19 situation are projected to disproportionately affect women (12).

The government's implementation of a lockdown and commute restriction slowed the community spread of Covid-19, but it may have unintentionally affected emergency obstetric care for referred women by restricting public transportation because most pregnant women in some LMICS still use public transportation for emergency visits. This is in accordance with the findings of the ANC absence due to transportation unavailability.

This study has some potential limitations that should be considered when interpreting the results. Further research should be conducted to obtain more detailed information for future recommendations.

V. CONCLUSION

ANC coverage was impacted by the Covid-19 pandemic due to the health facility closure, economic disruption, and transportation unavailability

VI. ACKNOWLEDGMENT

We gratefully acknowledge Institute for Health Metrics and Evaluation for providing public data that could be accessed worldwide

VII. REFERENCES

1. WHO. Interim report 27 August 2020 1. Pulse Surv Contin Essent Heal Serv Dur COVID-19 pandemic [Internet]. 2020;(August):1–21. Available from: https://apps.who.int/iris/bitstream/handle/10665/334048/WHO-2019-nCoV-EHS_continuity-survey-2020.1-eng.pdf
2. Economic and Social Council - United Nations. Progress towards the Sustainable Development Goals - Report of the Secretary-General. [Internet]. New York; 2021. Available from:

<https://undocs.org/en/E/2021/58>

3. Siedner MJ, Kraemer JD, Meyer MJ, Harling G, Mngomezulu T, Gabela P, et al. Access to primary healthcare during lockdown measures for COVID-19 in rural South Africa: an interrupted time series analysis. *BMJ Open*. 2020 Oct;10(10):e043763.
4. Shikuku DN, Nyaoke I, Gichuru S, Maina O, Eyinda M, Godia P, et al. Early indirect impact of COVID-19 pandemic on utilization and outcomes of reproductive, maternal, newborn, child and adolescent health services in Kenya. *medRxiv* [Internet]. 2020;2020.09.09.20191247. Available from: <https://doi.org/10.1101/2020.09.09.20191247>
5. Wanyana D, Wong R, Hakizimana D. Rapid assessment on the utilization of maternal and child health services during COVID-19 in Rwanda. *Public Heal action*. 2021 Mar;11(1):12–21.
6. Shapira G, Ahmed T, Drouard SHP, Amor Fernandez P, Kandpal E, Nzelu C, et al. Disruptions in maternal and child health service utilization during COVID-19: analysis from eight sub-Saharan African countries. *Health Policy Plan* [Internet]. 2021 Aug 1;36(7):1140–51. Available from: <https://doi.org/10.1093/heapol/czab064>
7. Groulx T, Bagshawe M, Giesbrecht G, Tomfohr-Madsen L, Hetherington E, Lebel CA. Prenatal Care Disruptions and Associations With Maternal Mental Health During the COVID-19 Pandemic. *Front Glob Women's Heal*. 2021;2(April):1–8.
8. Institute for Health Metrics and Evaluation (IHME), Bill and Melinda Gates Foundation (BMGF), Premise Data Corporation. *Premise Infant and Maternal Health COVID-19 Health Services Disruption Survey 2020*. Seattle, United States of America: Institute for Health Metrics and Evaluation (IHME); 2020.
9. Sarker BK, Rahman M, Rahman T, Rahman T, Khalil JJ, Hasan M, et al. Status of the WHO recommended timing and frequency of antenatal care visits in Northern Bangladesh. *PLoS One* [Internet]. 2020;15(11):1–21. Available from: <http://dx.doi.org/10.1371/journal.pone.0241185>
10. Kemenkes RI. PMK No.97 Tahun 2014 Tentang Pelayanan Kesehatan. Artikel [Internet]. 2014;[cited 2018 Jan 7]; 3-8. Available from: <https://id.search.yahoo.com/search?p=PMK+No.97+th+2014+tentang+pelayanan+kesehatan+masa+sebelum+hamil%2C+masa+hamil%2C+persalinan+dan+sesudah+melahirkan&fr=yfp-t&fp=1&toggle=1&cop=mss&ei=UTF-8%0Akesga.kemkes.go.id>
11. Organization WH. WHO recommendations on antenatal care for a positive pregnancy experience: summary: highlights and key messages from the World Health Organization's 2016 global recommendations for routine antenatal care. World Health Organization; 2018.
12. Kotlar B, Gerson E, Petrillo S, Langer A, Tiemeier H. The impact of the COVID-19 pandemic on maternal and perinatal health: a scoping review [Internet]. Vol. 18, *Reproductive Health*. BioMed Central; 2021. Available from: <https://doi.org/10.1186/s12978-021-01070-6>
13. Ayenew B, Pandey D, Yitayew M, Etana D, Binay Kumar P, Verma N. Risk for surge maternal mortality and morbidity during the ongoing corona virus pandemic. *Med Life Clin*. 2020;2(1):1012.
14. Kumari V, Mehta K, Choudhary R. COVID-19 outbreak and decreased hospitalisation of pregnant women in labour. *Lancet Glob Heal*. 2020;8(9):e1116–7.



ISBN 978-602-99020-8-2 (PDF)





Certificate

given to:

Susiani Endarwati, SST. MKes

as:

PRESENTER

3rd JOINT INTERNATIONAL CONFERENCE

"After Covid-19 Pandemic: Health and Education System Resillience"

Faculty of Health Sciences Unipdu Jombang, East Java, Indonesia, November 17th-18th, 2021

JOINT INTERNATIONAL CONFERENCE
PRESIDENT



Fujiani, S.Kep., Ns., M.Kes

NIPY. 11 010901 079

JOINT INTERNATIONAL CONFERENCE
CHAIRMAN OF COMMITTEE



Andi Yudianto, S.Kep., Ns., M.Kes

NIPY. 11 010901 020

JOINT INTERNATIONAL CONFERENCE AGENDA

17-18th November 2021

DAY	ACTIVITY	RESPONSIBLE EVENT
17 th Novem- ber 2021	Opening Ceremony National Anthem of Indonesia Welcoming dance Welcome speech and report by Chairman Welcome speech by Dean of FIK Unipdu Welcome speech and opening ceremony by Rector Unipdu Speech by Head of Yayasan Pesantren Tinggi Darul Ulum Pray (Doa) Photo Session (via zoom) Education Policy of Indonesia During and After Covid-19 Pandemic in Health Schools 1 st Main Session "Thailand challenges and strategies after covid-19 pandemic in the health school system" 2 nd Main Session "Immune resilient during and after covid-19 pandemic in Taiwan" 3 rd Main Session "Strategies to improve family and community resilience in the face of the covid-19 pandemic" 4 th Main Session "Immune response after covid-19 vaccination" 5 th Main Session "Education in Public Health During the Covid-19 Pandemic" 6 th Main Session "Maternal Health: Past, Present and Moving forward"	Wim Banu Ukhrowi, S.S., M.Pd Operator Operator H. Andi Yudianto, S.Kep., M.Kes Pujiani, S.Kep., Ns., M.Kes Prof. DR. H. Ahmad Zahro, MA Drs. KH. Zaimudin Wijaya As'ad, MS Dr. dr. H. M. Zulfikar As'ad, MMR Operator Dr. H. Emil Elestianto Dardak, B.Bus., M.Sc Assistant Professor Dr. SupapakPhetrasuwan Mahidol University of Thailand Prof. Chiou-Feng Lin, Ph.D Taipei Medical University, Taiwan Dr. Ns. Moch. Maftuchul Huda, M. Kep. Sp.Kom KaryaHusada, Indonesia Dyah Ika Krisnawati, S.Kep, Ns, M.Si, Ph.D Dharma Husada Nursing Academy, Kediri, East Java, Indonesia Dr. Kaeleen Dingle, PhD, MPH (TropHlth) BEduc RN Queensland University of Technology (QUT), Brisbane, Australia DrJerico F Pardosi, PhD Queensland University of Technology (QUT), Brisbane, Australia

DAY	ACTIVITY	RESPONSIBLE EVENT
18 th Novem- ber 2021	7 th Main Session "In this world you will have trouble: developing resilience in nursing students for a post-Covid world" 8 th Main Session "Overcoming compassion fatigue" 9 th Main Session "Living side to side with Covid-19" 10 th Main Session "Social mental health after pandemic covid-19" 11 th Main Session "Spirituality and quality of life after the covid-19 pandemic" Parallel session Public Health 1: OP_01 Public Health 2: OP_02 Fundamenal and Management: OP_03 Medical Surgical: OP_04 Mental Health: OP_05 Nutrition & Herbal: OP_06 Maternity1: OP_07 Maternity2: OP_08 Pediatric: OP_09	Dr. Barbara Richardson, DNP, RN, ARNP, FNP-C Lee University America Dr. Michelle White, DNP, RN, APRN, FNP-BC Lee University America Putu Indraswari Aryanti, S.Kep. Ns., M.Kep Stikes RS Baptis, Indonesia Dr. Byba Melda Suhita, S.Kep. Ns., M.Kes Dean of Nursing and Midwifery program of IIK Strada, Indonesia Dr. Masruroh. S.Kep., Ns., M.Kes Nursing Lecturer of University of Pesantren TinggiDarulUlum, Indonesia Riza Yulawati, SKM, MIPH Mika Vernicia K, SKM. MPH Selvia David Richard, S.Kep., Ns., M.Kep Sahari, SKM Desi Natalia Tryjianti I, S.Kep., Ns., M.Kep Srinalesti Mahanani, S.Kep., Ns., M.Kep Zakiah, S.Keb., Bd., M.Keb Sri Banun Titi Istiqomah, SST. M.Kes Angga Miftakhul Nizar, S.Kep., Ns., M.Kep