

ASIA INTERNATIONAL MULTIDISCIPLINARY CONFERENCE 2017

TECHNOLOGY & SOCIETY: A MULTIDISCIPLINARY PATHWAY FOR SUSTAINABLE DEVELOPMENT

1-2 MAY 2017

UNIVERSITI TEKNOLOGI MALAYSIA

Social Sciences and Humanities

FOCUS AREAS

- Social Sciences and Humanities
- Science, Technology and Engineering
 Economics, Business and Management
 Life Science and Others











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Pre-Conference Training Workshop

ASIA International Multidisciplinary Conference 2017 Pre-Conference Workshop Series



Workshop 1

Prof. Dr. Amran Md Rasli, Universiti Teknologi Malaysia, Malaysia Topic "Underlying concepts and assumptions for SEM" 30 April 2017, UTM Johor Bahru

Workshop 2

Dr. Mohammad Imran Qureshi, Universiti Kuala Lumpur, Malaysia Topic "Structural Equation Modeling (SEM) Using SmartPLS" 30 April 2017, UTM Johor Bahru

> Single Workshop Fee = RM 125 - Both Workshops Fee = RM 200 CIMB Bank Account#: 7612232265, Title: Muhammad Yasir Please send payment proof to utmiccasia@gmail.com for confirmation.











Conference Program

Schedule for AIMC 2017

Conference Theme: Technology and Society: a multidisciplinary pathway for sustainable development

Venue: Seminar Room 2, FAB, Universiti Teknologi Malaysia, Johor Bahru, Malaysia

Monday, 1st May 2017

Time	Event
07:30-08:45	Registration
08:45-09:00	Guests Seating
09:00-09:20	Opening Note by Prof. Dr Amran Rasli (UTM)
09:20-09:40	Keynote Speech by Prof. Dr Rajah Rasiah (UM)
09:40-10:00	Keynote Speech Prof. Dr Hadi Nur (UTM)
10:00-10:15	Introduction of Connecting Asia by Dr Muhammad Imran Qureshi (UniKL)
10:15-10:20	Group Photograph
10:20-10:45	Breakfast
10.20 101.6	Dicariast
10:45-13:00	Parallel Sessions / 5Slides 5 Minute 5 Slides (5S 5M)) Competition /Poster Presentation Competition
	Parallel Sessions / 5Slides 5 Minute 5 Slides (5S 5M)) Competition
10:45-13:00 13:00-14:00	Parallel Sessions / 5Slides 5 Minute 5 Slides (5S 5M)) Competition /Poster Presentation Competition
10:45-13:00	Parallel Sessions / 5Slides 5 Minute 5 Slides (5S 5M)) Competition /Poster Presentation Competition Lunch & Prayer Break
10:45-13:00 13:00-14:00	Parallel Sessions / 5Slides 5 Minute 5 Slides (5S 5M)) Competition /Poster Presentation Competition Lunch & Prayer Break Parallel Sessions
10:45-13:00 13:00-14:00	Parallel Sessions / 5Slides 5 Minute 5 Slides (5S 5M)) Competition /Poster Presentation Competition Lunch & Prayer Break Parallel Sessions 5Slides 5 Minute 5 Slides (5S 5M) Competition
10:45-13:00 13:00-14:00 14:00-16:00 16:00-16:15	Parallel Sessions / 5Slides 5 Minute 5 Slides (5S 5M)) Competition /Poster Presentation Competition Lunch & Prayer Break Parallel Sessions 5Slides 5 Minute 5 Slides (5S 5M) Competition Poster Presentation Competition
10:45-13:00 13:00-14:00 14:00-16:00	Parallel Sessions / 5Slides 5 Minute 5 Slides (5S 5M)) Competition /Poster Presentation Competition Lunch & Prayer Break Parallel Sessions 5Slides 5 Minute 5 Slides (5S 5M) Competition Poster Presentation Competition Tea Break

CONFERENCE GALA DINNER



Venue: Pulai Spring Resort, Skudai, Johor Bahru^a

Date: 1 May 2017

Time: 19:00 – 22:00 Hours

Time	Program
19:00 – 19:30	Registration & Guest Seating
19:30 – 19:40	Welcome Speech by Conference Chairman Prof. Dr Amran
	Rasli
19:40 - 20:00	Keynote address by Vice Chancellor UTM, Prof. Datuk
	IR. Dr Wahid Bin Omar
20:00 - 20:05	Montage (ASIA Achievements & AIMC 2017)
20:05 - 20:15	About ASIA till Now and Future Plans of ASIA, Launch of
	ASIA Membership Campaign
20:15 - 20:30	Presentation of Awards and cash prize
20: 30 – 21:15	Cultural Event
21: 15 – 21:20	Photo Sessions
21: 20 – 22:00	Networking & Dinner
22:00	End of the Event

Dinner Theme: Connecting People Globally

Dinner Attire: Traditional Attire^a

Tuesday, 2 May 2017

09:00-17:00	Virtual Conference (Audience is not allowed)

^a20km, Jalan Pontian Lama, 81110 Pulai, Johor Malaysia

Tel: +607 521 2121, Fax: +607521 1818, Email: enquiry@pulaisprings.com

^b(The Guests are requested to wear their own Country's Traditional Attire)

WELCOME MESSAGES FROM CONFERENCE CHAIR

Professor Dr Amran Rasli

We welcome all respected Researchers to the AIMC 2017, ASIA International Multidisciplinary Conference on four sub-themes i.e. Social Sciences and Humanities, Life Sciences, Science, Technology and Engineering, Economics, Business and Management. AIMC 2017 received more than 1700 abstracts from 22 countries. However, after rigorous review process, 500 quality abstracts were selected for oral presentations. The presentations are divided into different categories including 5Slides 5Minute (5S 5M) competition which are a trademark of ASIA, poster presentation competition and oral presentations with a cash prize for winners. These papers cover a wide range of disciplines consisted of Social Sciences and Humanities, Psychology, Education, Linguistics, Civilization and Law, Anthropology, Life Sciences, Environmental Sciences, Biosciences, Pharmacy, Medical Sciences, Earth sciences, Geology, Agriculture, Anatomy, Genetics, Zoology, Science, Technology and Engineering, Civil Engineering, Mechanical Engineering, Chemical Engineering, Electrical Engineering, Energy, Marine Engineering, Information technology and Computer science, Bioinformatics, Geo-informatics and real states, Mathematics, Physics and Chemistry, Economics, Business and Management, Economics, Business Management, Accounting and Finance, Management, Marketing, Technology management, Human Resource and Operations Management, that bring new and general insights body of knowledge and research world. We are delighted that we will have Special Keynote Speakers Prof. Datuk Ir. Dr Wahid bin Omar Vice Chancellor UTM, Prof. Dr Rajah Rasiah. Professor Dr Hadi Nur and Dr Muhammad Imran Qureshi. They will deliver an insightful keynote on the emerging agenda of the conference. ASIA is a Research society intended to create a symbiotic partnership between academia and industry to provide sustainable solutions for social and industrial issues. ASIA Mediterranean network is a conference management system which aims to bring all respective stakeholders, including practitioners, educators, and professionals on one platform from all over the globe to share the latest developments and transfer the academic and tacit knowledge to make the society more sustainable and knowledgeable. Recently the ASIA Mediterranean Network conducted 2nd ASIA International Conference AIC 2016 at UTM Kuala Lumpur Malaysia. In addition, 2nd AFAP International Conference on Entrepreneurship and Business Management (AICEBM 2015) was successfully conducted at Kuala Lumpur Malaysia. In 2015 ASIA International Conference (AIC 2015) in collaboration with UTM-ICC was also successfully organised. In the same vein, ASIA extends the journey of success to organise ASIA International Multidisciplinary Conference AIMC 2017 in collaboration with UTM-ICC, and Universiti Technologi Malaysia on four sub-themes i.e. Social Sciences and Humanities, Life Sciences, Science, Technology and Engineering, Economics, Business and Management.at Universiti Teknologi Malaysia, International Campus, Johor Bahru, Malaysia.

GUIDE TO SESSION CHAIRS

Before Session

- 1. Please arrive at the meeting room 5 minutes earlier before the session starts.
- 2. You can check the program on the official conference website in advance.
- **3.** If there are any changes of the session time or presenting abstract, the working staff will notify you right at the registration desk.

During Session

- 1. Please divide the available time equally among all presenters. Each paper should be presented in ten minutes, followed by three minutes discussion time.
- 2. At the beginning of the session, briefly, introduce yourself, announce of your arrangement of the presentations to the presenters and the audience. Please make sure the presenters are aware that they will receive their certificate at the end of the session.
- 3. We will have our working staff ready at the end of each session to take a group picture of the participants, please help to gather everyone for the photo shoot.
- **4.** Papers with more than one author do not get any extra time for the presentation.
- **5.** Please remind the presenters of the remaining time they have three minutes before the end of their presentation. If a speaker goes beyond the allotted time, the session chair should ask him/her to close the presentation promptly and politely.
- **6.** Confer the certificate of participation to every presenter at the end of the session.
- **7.** Please try to make sure the session timely proceeds since some attendees need to move from session to session.
- **8.** If any problem which affects the continuation of your session appears, please send someone to contact the organisers.
- **9.** If any of the presenters fail to appear at the session, please return their certificates to the organising committee.

SESSION CHAIRS & JUDGES

Names	Area	University
Prof. Dr. Amran bin MD. Rasli	Management	UTM
Prof. Dr. Rajah A/l Rasiah	Business Economics	UM
Dr. Nurwina Akmal Binti Anuar	Biosciences and Health Sciences	UTM
Dr. Shafqat Ullah Khan	Communication/Electrical Engineering	UTM
Dr. Muhammad Adil Khattak	Mechanical and Nuclear Engineering	UTM
Dr. Rashid Ahmed	Physics	UTM
Dr. Kashif Tufail Choudhary	Physics and Biomedical Engineering	UTM
Dr. Usman Ullah Sheikh	Electronics and Computer Engineering	UTM
Dr. A. S. A. Ferdous Alam	International Business Management	UUM
Dr. Mastura Mahfar	Management	UTM
Prof. Madya Dr. Khairil Wahidin bin	Economics and Management	UPM
Awang		
Dr. Zainudin bin Hassan	Education	UTM
Dr. Aqeel Khan	Education	UTM
Dr. Farhana Diana Deris	Linguistics and Online Learning	UTM
Dr. Mehrbakhsh Nilashi	Computing	UTM
Dr. Zahid Sultan	Built Environment	UTM
Dr. Dodo Yakubu Aminu	Sustainable Architectural Education	UTM
Dr. Munirah Binti Onn	Applied Sciences	UiTM
Dr. Yulia Hendri Yeni	Business and Management	Unand,
Dr. Syed Zuhaib Haider Rizvi	Lasers Induced Plasma	UTM
Dr.Maqsood Ahmed	Nuclear Energy Physics	UP, Pakistar
Assoc. Prof. Dr. Mukhiddin Muminov	Analysis, Mathematical Physics	UTM
Dr. Mazlina Mustapha	Economics and Management	UPM
Dr. Jafri bin Mohd. Rohani	Industrial and Mechanical Engineering	UTM
Dr. Ani Bin Shabri	Mathematics/Statistics	UTM
Dr. Basheer Ali Ghazali	Business and Management	KFU,SA
Dr. Mohamed Ayyub Hassan	Human Resource Development	UTM
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Dr. Abdullah Hisam Omar	Geo Information	UTM
Dr. Mhammed Amin Azimi	Built Environment/ Civil Engineering	UTM
Dr. Suresh Ramakrishnan	Accounting and Finance	UTM
Dr. Goh Chin Fei	Business and Management	UTM
Dr. Tan Sui Hong, Helen	Business and Management	UTM
Assoc. Prof. Dr. Ismail Said	Built Environment	UTM
Dr. Associate Prof. Datin Dr. Hasmah	Department of Media Studies, Faculty	UM
Binti Zanuddin	of Arts and Social Sciences	
Dr. Inam Abbasi	Electrical Engineering	UTM
Dr. Qais Ali	Computing	UTM
Dr. Usman Ahmad	Computing	LCW, Pak

Names	Area	University
Dr. Kang Chia Chao	Electrical Engineering	Uni KL
Dr. Tan Owee Kowang	Management / Mechanical Engineering	UTM
Dr. Muhammad Imran Qureshi	Operation Management	Uni KL
Dr. Solomon Olayinka	Management	UTM
Dr. Monica Obi	Education	UTM
Asso. Prof. Dr. Hashanah Binti Ismail	Economics and Management	UPM
Dr. Susilawati Toemen	Chemistry	UTM
Dr. Salmiah Jamal Mat Rosid	Chemistry	UTM

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1	Mardan, Pakistan.	
	· · · · · · · · · · · · · · · · · · ·	

Team for AIMC 2017

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Professor Dr Amran Rasli

Program Director

Dr Muhammad Imran Qureshi

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- ✓ Hishan Shanker Sanil
- ✓ Muhammad Yasir
- ✓ Muhammad Aamir
- ✓ Mansoor Nazir Bhatti
- ✓ Arslan Umar Advocate
- ✓ Farhan Jamil
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Hamad Raza Zia ur Rehman

Hassan Khan

Joyce Tan Chiau Joo

Logais Wari

Malik Muhammad Asif Iqbal

Muhamad Kamal Jaáfar

Muhammad Arif Khan

Muhammad Salman

Muhammad Wasim Akram

Nabeelah zain ul Abideen

OUR DIGNITARIES



Prof. Datuk. Ir. Dr Wahid bin Omar Vice-Chancellor, Universiti Teknologi Malaysia

Datuk Wahid Omar is a Professor of Structural Engineering at the Faculty of Civil Engineering, Universiti Teknologi Malaysia (UTM). He was appointed as the Vice-Chancellor of UTM in September 2013. Wahid Omar obtained his PhD. in Structural Engineering from the University of Birmingham, his Master's degree in Bridge

Engineering from the University of Surrey, and his Bachelor of Science in Civil Engineering degree from the University of Strathclyde, United Kingdom. He is a Fellow of the Institution of Engineers

Malaysia, a registered Professional Engineer with the Board of Engineers Malaysia and a member of various professional bodies. He is also an Honorary Member of the ASEAN Federation of Engineering Organization (AFEO). His areas of expertise include structural assessment, reinforced and pre-stressed concrete and ductility of high strength concrete and project management. Prior to his present appointment, he was the Deputy Vice-Chancellor (Development) (2011-2013) and the Director of the Office of Asset and Development (2008-2011). In his capacity as the then Director of the Office of Asset and Development, he was entrusted with a major task to manage UTM campus development projects worth RM1 billion.



Professor Dr Amran Rasli has a PhD in Society, Business & Globalisation from Roskilde University, Denmark. He is currently the Director of Innovation and Commercialization Centre. Universiti Teknologi Malaysia. His main task is to screen UTM research and development projects, and subsequently, create commercial ventures through licensing and/or formation of spin-offs companies. He is a director of two spin-off companies on behalf of UTM. He also liaises, plans and conducts entrepreneurship activities with funding

agencies to ensure the sustainability and impact for the entrepreneurs and the agencies concerned. At the Faculty of Management, Prof. Dr Amran Rasli teaches postgraduate students, supervise doctoral students, conduct research projects and write journals for publication as per the expectation of the university. Prof. Dr Amran Rasli is still active in doctoral supervision having graduated 31 PhD scholars so far. He had been invited as a visiting professor at University College of Engineering and Technology, Pahang, Indian Institute of Risk Management, Hyderabad, India, Hebei University, China, Kaunas Technological University, Lithuania, National Central University, Taoyuan, Taiwan, National Chen Kung University, Tainan, Taiwan and Universitas Sebelas Maret, Surabaya, Indonesia. He is currently an Adjunct Professor at Asia E-University.



Dr Rajah Rasiah is Professor of Economics and Technology Management at the Faculty of Economics and Administration, University of Malaya. He was the first holder of the Khazanah Nasional Chair of Regulatory Studies and a Professorial Fellow at UNU-MERIT and a member of the GLOBELICS scientific board, and an advisory member of the Industrial Development Research Centre, Zhejiang University. He is also a member of the National Science Research Council, Malaysia, and an

advisory member of the Export Committee of the Ministry of International Trade and Industry, Malaysia. He has contributed extensively to projects commissioned by UNCTAD, World Bank, ILO, UNIDO, UNESCO, UNDP and WIPO in Africa, Asia and Latin America. He obtained his doctorate in Economics from Cambridge University in 1992 and was a Rajawali fellow at Harvard University in 2014. He is the 2014 recipient of the Celso Furtado prize from the World Academy of Sciences for his contributions to the field of social sciences. He has published more than 300 research articles in SCOPUS, ISI indexed and Impact factor journals. He has supervised 32 Doctoral Theses and 18 Master Theses. More than 100 scientific papers have been presented since 2007 at various international conferences. About 17 books have been published in national and international publishers. His work has been cited extensively (<3700) with 94 i10 index and h index 31.



Dr Hadi Nur is a Professor and specialised in advanced materials and heterogeneous catalysis. His main field of undergraduate and graduate studies was in chemistry and materials engineering at the Institut Teknologi Bandung. He obtained his B.S. and M.Eng. (cum laude) degrees in 1992 and 1995, respectively. Shortly after that, he continued his postgraduate studies in zeolite chemistry at the Universiti Teknologi Malaysia (UTM) as he received his PhD degree in 1998. His postdoctoral studies started with a year as a UTM

Postdoctoral Fellow and with two years as a Japan Society for Promotion of Science (JSPS) Postdoctoral Fellow at Catalysis Research Center (CRC), Hokkaido University, Sapporo, Japan. He continued there as a Center of Excellence (COE) Visiting Researcher at CRC for half a year. In May 2002, he joined the Ibnu Sina Institute for Fundamental Science Studies, Universiti Teknologi Malaysia. He was a visiting scientist at the Institute for Heterogeneous Materials Systems, Helmholtz-Zentrum Berlin for Materials and Energy, Germany from July to September 2015. Currently, he is a full professor at UTM. He has supervised many postgraduate students studying for PhD and M.S. degrees in heterogeneous catalysis and advanced materials, for example, zeolite chemistry and catalysis, photocatalysis, semiconductor nanoparticle-polymer composite, bifunctional oxidative, and acidic catalysts and phase-boundary catalysis. Currently, he and his family enjoy living in Johor Bahru area and are glad that they made the move.



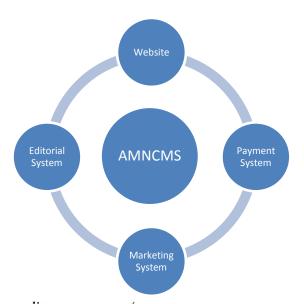
Muhammad Imran Qureshi is a doctor of management from Universiti Teknologi Malaysia. His doctorate research focused on the work practices for sustainable manufacturing under Socio-technical systems context. He is currently working as a senior lecturer in Malaysian Institute of Industrial Technology (MITEC), Universiti Kuala Lumpur. He is also founding Director of Connecting ASIA research network. He has ten years of teaching experience in the field of Operations Management, Strategic Management, Project Management, Total Quality Management, Statistical Process Control, Environmental Management, Logistic and

Supply Chain Management, Production Management and Operations Research, Statistics and Data Analysis. He is a professional trainer for data analysis. He has conducted several workshops on Structural Equation Modeling (SEM) using AMOS and SMART PLS, qualitative data analysis using NVIVO. On the research side, his research profile consists of more than 100 research publications in renowned journals with a cumulative impact factor above 34. He has written several impact factor publications with world renowned publishers like ELSEVIER and SPRINGER in the area of Operations Management, Environmental Management, Sustainability and Organizational Behavior. His work has been cited extensively with 15 i10 index and h index 12.

CONNECTING ASIA CONFERENCE MANAGEMENT SYSTEM NETWORK (CACMSN)

AMNCMS provides all solutions for the problems in managing conferences. This is a comprehensive system to manage conference website, marketing and payment system. AMNCMS also contains an integrated editorial system for submission and review of the conference articles. AMNCMS enables conference organisers to manage multiple conferences on the single web and provide hassle free easy to use interface for organisers and researchers over the globe. AMNCMS is undergoing the process for copyright protection as stipulated by the commercialization policy of Universiti Teknologi Malaysia (UTM). Many local and international conferences are using AMNCMS for hassle free conference management. Our team is committed to providing quality services to satisfy conference organisers needs.

CONNECTING ASIA CONFERENCE MANAGEMENT SYSTEM NETWORK



Website: http://asiamediterranean.org/

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<u>Mediterranean/590949974341516?ref=hl</u> **Twitter:** https://twitter.com/AsiaMedit

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International Conference on Management, Accounting, Business and Entrepreneurship (ICMABE 2017)

> Tentative Dates: 15 - 18 October, 2017 Tentative Venue: Jakarta, Indonesia

> > Themes

Management, Accounting and Finance, Entrepreneurship & Business

All accepted articles will be published in Scopus indexed journals Scopus



For further information please visit: http://asiamediterranean.org Our Facebook page: https://www.facebook.com/infoconnectingasia/









3rd ASIA International Conference 2017 (AIC-2017)

> Tentative Dates: 16-17 December 2017 Tentative Venue: UTM, Kuala Lumpur, Malaysia

Themes

Marketing, Management, Finance, Economics, Sustainablit, Humanities & Education

All accepted articles will be published in **Scopus** indexed journals Scopus



For further information please visit: http://asiamediterranean.org Our Facebook page: https://www.facebook.com/infoconnectingasia/

Abstract ID: AIMC-2017-SSH-462

MANAGING CRISIS AND RESPONSE TIMES ANALYSIS: THE EFFECTIVENESS OF ONLINE MONITORING STRATEGY ANALYSIS IN PLAZA LOW YAT RACIAL RIOTS INCIDENT AND BERSIH 4.0.

Corresponding Author: Hasmah Zanuddin

Prof Madya Dr, Senior Lecturer at Media Department Faculty of Arts and Social Sciences, University of Malaya

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Abstract

Introduction: Managing a crisis and its consequences requires a clear understanding that it's no longer business as usual. The standard approaches or management structures that you rely on to make day-to-day decisions will no longer work. You simply can't wait for all the answers to take action or let others dictate your future. Instead, you must be ready to act swiftly, decisively, and responsibly especially when it comes to protect the country and safety of the people. Methodology: This study focused on the effectiveness of the Malaysian Royal Police (PDRM) online crisis management and response time taken to neutralise two viral issues in the social media. Plaza Low Yat Racial Riot Incident and Bersih 4.0 Rally were chosen for this study. Factors of examination includes the response times, the influence and the relevancy of information sources through the distribution of public opinion using comments made on selected Facebooks. Content analysis was employed to analyse the sentiment analysis using the Application Programme Interface (API) webtools and SPSS version 20. Sentiment polarity of the postings were categorized into positive, negative and neutral sentiment. Independent portal sources, conventional media sources, public opinion sources and sources from monitoring agency were chosen as the independent variables and public opinion was taken as the dependent variable. Findings: Results showed correlations and effect among the strategy implemented by the monitoring body towards public opinion in the social media. There were effectiveness in online strategies for the case study of Plaza Low Yat racial riots incident, where results showed the $x^2 = 1135.35$, df = 4 was significant at p = 0.05, reflecting a decreased of negative comments and increased of positive and neutral comments monitoring and deploying online strategies. However, in the case of Bersih 4.0 rally, the result showed, the $x^2 = 11.37$, df = 4 was significant at p = 0.05reflecting an increase of negative comments, post online strategies deployment, which resulting in ineffectiveness of online monitoring strategies during crisis. The Plaza Low Yat Racial Riots Incident, showed a significant decrease of negative comments from social media users after monitoring strategy implemented within a shorter time (146 hours) compared to Bersih 4.0 case study (228 hours), which showed a negative response and ineffectiveness of online crisis monitoring strategies. Contribution: This study can assist the monitoring agency such as the Royal Malaysian Police to formulate a suitable strategy, depending on the situation, to ensure effective monitoring of viral issues in social media and curtailing negative impact of such viral issues in order to sustain the public order and security of the country. Through an effective and efficient monitoring practice, unhealthy environment practices that may threaten the unity of a country such as rallying, and riot incitement to "stoke racial sentiments" could be controlled as fast as possible (response time) before leading to a complete disorderliness.

Keywords: Public Opinion, Viral Issues, Social Media Monitoring and Online Crisis Management Strategies

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CONFIDENCE ROLE AS A MEDIATOR INFLUENCE OF FAMILY SOCIAL SUPPORT ON WELL BEING ON STROKE PATIENTS

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Abstract

Introduction: In the modern society, stroke become a major threat in many countries. In Indonesia, the year of 2015, stroke was in the first rank to be a caused of death. Stroke treatment requires a long time, and during that time the physical and psychological condition of the patiens will have a tendency to be declined, In order to the healing process run optimally psychologycal aspect of patients need attention. One that needs attentions is well being, it is intended that the patient does not dissolve in misery. This study aims to examine the role of selfconfidence as a mediator influence of family social support to the psychologycal wellbeing of stroke patients. Respondents in the study were stroke patients who are undergoing tratment in three hospitals in Jakarta totaling 157 patient. Methods of data collection using a likert type scale. Based on the data analysis of research result that family social support affect the psychologycal wellbeing through self confidence Methodology: Methods of

SELF CONFIDENCE ROLE AS A MEDIATOR INFLUENCE OF FAMILY SOCIAL SUPPORT TO PSYCHOLOGICAL WELLBEING ON STROKE PATIENTS

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Abstract

In modern society stroke becomes a major threat in many countries. In Indonesia in 2015 was ranked first stroke as the cause of death. Stroke treatment requires a long time, and during that time the physical and psychological condition patient will have a tendency to decline. In order for the healing process run optimally psychological aspects of patients need attention. One that needs attention is wellbeing, it is intended that the patient does not dissolve in misery. This study aims to examine the role of self-confidence as a mediator of the influence of family social support on psychological wellbeing of patients with stroke. Respondents in this study were stroke patients who are undergoing treatmet in three hospitals in Jakarta, totaling 157 patients. Methods of data collection using a likert type scale with. Based on the data analysis of the research results that family social support affect the psychological wellbeing through self confidence.

Keywords: self confidence, family social support, psychological wellbeing

Introduction

Stroke disease is that everyone fears in almost every part of the world. Stroke is the third leading cause of death in the world, number five in America, and number one in Indonesia. More and more people with stroke in Indonesia. The risk of stroke will increase with age. However stroke is not the dominance of the elderly, stroke can threaten all age levels. Stroke is a disease caused by acute and general focal brain functional disorders, more than 24 hours except in surgical or dying intervention, originating from cerebral circulatory disturbances (Riyadina&Rahajeng, 2013).

Healing stroke disease takes a long time. This condition causes individuals who experience a stroke will feel desperate because they feel already routine for treatment but stil feel worse condition. Conditions like these that make stroke sufferers experience psychological tension. This condition of psychological tension will only make it more difficult to heal stroke. In addition to seeking medical aspects of stroke patients need to keep the psychological condition so that patients remain comfortable living with a stroke.

According Triandis (2000) generally in countries with low well-being levels will be more found physical illness and depression. This opinion explains the importance of well-being for people with stroke. Patients who have high well-being will undergo treatment with a great sense of optimism for the expected healing. There are several factors related to the psychological well being of a person. Ryff (1989) these factors are demographics, personality, social support, and evaluation to life experiences.

Individuals who are convicted of a stroke will cause a negative perception of his ability. Individuals will feel helpless than before, individuals also feel will lose the ability it has. In this condition the individual will experience unhappiness. This unhappiness is one of them because the individual felt the healing effort did not bring the changes as expected so that the individual was hopeless and did not have the confidence. What's more, strokes make the individual suffer from organ dysfunction, consequently some daily work can no longer be done by stroke sufferers independently but requires the help of others. A more severe condition is that in general stroke is experienced by those who are in old age, many of their family members are at productive age who have various activities outside the home so that attention to stroke patients will be reduced. Though the family's social support for stroke sufferers can increase confidence, which in turn can improve the wellbeing of stroke patients. Wellbeing will bring the individual

to reconcile with the illness he suffered. A pleasant psychological condition is expected to accelerate the healing process.

Literature Review

Self Confidence

Self Confidence is one aspect of the personality of an individual who has an important function. Individuals who have the confidence will make the individual is able to actualize the potential possessed with confidence and steady, so that what the purpose of life can be achieved. According Lidenfield (1997) confidence is more emphasis on self-confidence to the satisfaction felt by individuals about themselves. Satisfaction here means the individual is satisfied with what he is doing. Confidence is often associated with feelings of joy, excitement, joy. In general, self-confidence is a positive attitude of the individual that makes him able to build a positive assessment of both the self, the environment and the situation faced.

The self confidence factors according to Lindenfield (1997) consist of (1) inner Confidence. Inner confidence is an individual's belief that he is in good condition. This belief will be possessed if the individual loves himself and can hide his feelings from others (2) Outer Confidence is a self-belief embodied in the form of behavior in order to be known by the social environment. To have outer confidence needed some skills, including skills Communicate, the ability to control feelings or emotions, have assertiveness. Confidence is largely determined by the interaction of individuals with other individuals. A harmonious family relationship can also increase self-confidence. This is because individuals who are experiencing a crisis of self-identity in desperate need of support from the family (Hurlock, 1996).

Social Support

Humans are social beings. As social beings, man can not live alone without the help of others. Social support from others will greatly need help on the condition of the individual experiencing a problem. Help and support are obtained by individuals so the individual can face difficulties with full confidence because the individual feels not facing his own problems. According Sarafino (2006) social support is a given or group aid to individuals, so that individuals feel cared for, valued, and feel safe. Meanwhile, according to Sarason, Sarason& Pierce (1990) social support is the physical and psychological comfort provided by friends or family members.

It is said by Barker (2007) that social support has four aspects, namely: (a) Information support. Social support specifically as information leads individuals to believe they are loved and valued and have communications networks and shared obligations, (b) Emotional support. Emotional support is a support that comes from family members including elderly individuals and siblings, close friends or from others. (C) Instrumental support. Direct support to individuals in a variety of forms. (D) Affiliate support. This form of support is jointly performing activities that are liked and desirable,

Psychological Wellbeing

Well-being is a concept that deals with the individual's feelings about his activities in everyday life. There is a difference of term and understanding of Psychological well-being. This term difference has been going on since about thirty years ago. Robinson (1991) and his colleagues mentioned several terms that experts often use (subjective / perceived / sense of / psychological) well-being, subjective welfare, and perceived life quality.

Warr (1999) divides the well-being individual into two contexts, which are job-specific feelings and individual feelings that relate to the broader context of any context-free well-being. Both are in the wider mental health concept. Meanwhile, Diener and Lucas (1999) mentioned the term subjective well-being as an evaluation or

judgment of a person for his life. This assessment includes cognitive assessment of life satisfaction and affective assessment of mood and emotion.

Aspects of well being according to Ryff (1989) that aspect (a) self acceptance. Self-acceptance is a positive attitude toward oneself, both in the present and the individual's past. Positive attitude is defined as the attitude of the individual who accepts all aspects of himself, (b) positive relation with others. The positive relationship with other individuals relates to the ability of a warm interpersonal relationship, satisfying, trusting each other, paying attention to the welfare of others, Strong empathy, affection and also intimacy and there is a relationship of giving and receiving in interaction, (c) autonomy. Autonomy aspect includes matters relating to the independence of individuals in living their lives. Aspects contained therein are the ability to self-determinate, independent, self-regulating and self-evaluating based on personal standards, (d) environmental mastery. The environmental mastery aspect includes the ability of an individual to choose and create an environment that suits his or her condition, Activities that exist outside of himself, able to take advantage of opportunities that exist, able to choose and create circumstances in accordance with values and personal needs, (e) purpose in life. This aspect includes beliefs that give the feeling to the individual that there is purpose and meaning In his life, both past and present, and (f) personal growth. Aspects of personal development include the ability of individuals to develop their potential sustainably, to grow and develop as human beings.

As human social beings will always need other individuals both in the form of help and support. Individuals need support especially in difficult times including when suffering or diagnosed with an illness like a stroke.

Methodology

Research design

This research is a quantitative research that aims to see the relation between independent variables with one dependent variable, either partially or simultaneously This research involves three research variables. The dependent variables in this study are psychological well-being, independent variables of family social support and confidence mediator variables. In addition to seeing the indirect influence of this study also see the direct influence of family social support with psychological well-being.

Research Subject

Subjects in this study were outpatients who underwent stroke healing therapy in three hospitals in Jakarta as many as 157 respondents. The subjects were chosen by chance (incidental sampling) and willing to be the subject of the study.

Measuring instrument

The research instrument used in this research uses a psychological scale constructed using Likert scale. Psychological scale in this research consist of:

1. Psychological well-being scale

Psychological well-being scale is constructed by researchers based on aspect of well being according to Ryff (1989) that is aspect: self acceptance), positive relation with others, autonomy, environmental mastery, purpose in life, personal growth. The psychological well-being scale consists of five alternative answers that will be given a score of 1 to 5. The lowest score in score 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), 5 (very agree). Based on the instrument test, the high alpha reliability coefficient is 0.810.

2. Family Social Support

The scale of family social support is constructed by researchers based on aspects of social support according to Barker (2007) namely aspects: information support, emotional support, instrumental support, affiliate support. The family's social support scale consists of five alternative answers that will be given a score of 1 to 5. The lowest score

in score 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), 5 (strongly agree). Based on instrument test, high alpha reliability coefficient is 0.816.

3. Self Confidence Scale

The scale of self confidence in the construction by researchers based on the type of confidence according to Lidenfield (1997): inner confidence and outer confidence. The scale of confidence consists of five alternative answers that will be given a score of 1 to 5. The lowest score in score 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), 5 (strongly agree). Based on instrument test, the coefficient of alpha reliability is high enough that is 0.870.

Data Analysis Research

Analysis of research data aimed to test the research hypothesis that is to test the role of family social support to psychological wellbeing through self-confidence. Hypothesis in this research is tested by using path analysis. As a tool in analyzing statistical data of researchers using softwareLisrel.

Result and Finding

Descriptive

Based on descriptive analysis of gender and age of respondents, the following results were obtained:

	Frekuensi	Prosentase (%)
Male	82	52.2
Female	75	47.8
	157	100

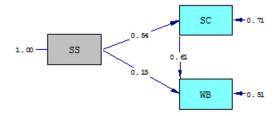
The sexes involved in the study were 75 or 47.8% of female respondents, and 82 or 52.2% of male respondents. Based on the data, most respondents are male.

	Frekuensi	Prosentase (%)
<25	8	5.1
25-34	22	14.0
35-44	15	9.6
45-54	57	36.3
>54	55	35.0
Total	157	100

The age of respondents involved in this study was less than 25 years as many as 8 people or 5.1%, age 25-34 years 22 persons or 14.0%, age 35-44 years as many as 15 people or 9.6%, age 45-54 years 57 People or 36.3%, over 54 years of age 55 people or 35.0%. Based on the data, most respondents at the age of 45 to 54 years.

Hypothesis testing

Analysis of research data aimed to test the three research hypotheses. Based on the data analysis, the results obtained in the following figure:



The first data analysis was aimed at testing the first hypothesis that there was a positive relationship between family social support and self-confidence. The result of data analysis shows that there is a positive and significant correlation between family social support with confidence (r = 0.54; t> 1.96). The better the social support family received the higher the confidence of patients with stroke. The coefficient of determination produced in this analysis is 0.292, which means that family social support has an influence on self-confidence of 29.2%.

The second data analysis is aimed at testing the second hypothesis that there is a positive relationship between self-confidence and psychological well-being. The result of data analysis shows that there is positive and significant influence between self-confidence with psychological well-being (r = 0.61; t> 1.96). The higher the self-esteem, the higher the psychological well-being of patients with stroke. The coefficient of determination generated in this analysis is 0.372 which means that self-confidence has an effect on the psychological well-being of 37.2%.

The third data analysis is aimed at testing the third hypothesis that reads family social support relates to psychological well-being through self-confidence. The results of the data analysis show an indirect effect between the social support of the family and the psychological well-being (r = 0.42; t > 1.96), from the total effect of 0.62, so that the direct effect is 0.20. This means that family social support is associated with psychological well-being through self-confidence.

Discussion

This study found that family social support is associated. This means that the more the patient's perceived social support will increase the patient's confidence. This proves that one good attempt at improving the psychological well-being of patients with stroke is to increase family social support. This is in line with the results of Wang, Qu, & Xu, (2016) research which found that there is a positive correlation of social support with confidence.

In addition to physical abnormalities, stroke will cause psychosocial burden. This is very possible considering the severity of certain strokes will lead to organ dysfunction, this condition causes patients with stroke to perform daily routine. This condition causes an individual suffering from a stroke requires support both in information, emotional, instrumental, and affiliation from the people closest in this case is the family.

The results of the second analysis indicate the influence of self-confidence in psychological well-being in patients with stroke. This shows that the more confident the patient that he will recover, the more psychological well-being patients with stroke. Being sentenced to a deadly disease will cause tremendous stress for the individual. Stroke disease runs fast and progressive, this causes the individuals who experience it will be surprised and can not accept the fact that will cause stress and even depression. Stroke is not a disease that can not be cured, with realistic thinking individuals will have high confidence that he will recover. The findings in this study are in line with research conducted by Maujean Davis (2013) who found that self-belief in psychosocial function is associated with all wellbeing components in stroke patients.

Conclusion

Based on the result of research, it can be concluded the result as follows:

1. There is a positive and significant relationship between family's social support and selfconfidence. The better the social support the family receives the higher the selfconfidence of the stroke patient.

- 2. There is a positive and significant relationship between selfconfidence and psychological well-being. The higher the selfconfidence, the higher the psychological well-being of patients with stroke.
- 3. There is a relationship between family social support and psychological well-being through self-confidence. The better the family's social support the patient receives, the more self-confidence the patient will ultimately lead to psychological being the patient.

References

- Barker, G. (2007). Adolescents, social support and help-seeking behaviour :Aninternational literature review and programme consultation with recommendations for action. Geneva: World Health Organization
- Diener, E & Lucas, R. E. (1999). Personality and subjective well-being, in Daniel Kahneman, Ed Diener Norbert Schwarz (Eds), *Well-being : The Foundations of Hedonic Psychology*. New York : Russel Sage Foundation.
- Irwin G. Sarason, Barbara R. Sarason, Gregory R. Pierce (1990). Social Support: the search of theory. Journal of Social and Clinical Psychology: Vol. 9, No. 1, 133-147
- Lidenfield, G.1997. Psychology An Introduction. Eight Edition. The Mc Graw-Hill Companies, Inc.
- Maujean, A., & Davis, P. (2013). Physical Medicine & Rehabilitation The Relationship between Self-Efficacy and Well-Being in Stroke Survivors, *I*(7), 1–10.
- RiyadinaW.,RahajengE.(2013).Determinanpenyakitstroke. JurnalKesehatanMasyarakatNasional. Vol. 7, No. 7, Februari 2003
- Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (1991). *Measures of personality and social psychological attitudes*. San Diego, CA: Academic Press.
- Ryff, C. D. (1989). Happiness is everything, or is it? Exploration on the meaning of Psychologicalwell being. Journal of Personality and Social Psychology. Vol 57. No. 6, pp. 1069-1081
- Sarafino, E. P. (2006). Health psychology: Biopsychosocial Interactions. Fifth Edition. USA: John Wiley & Sons
- Stewart, W. (2000). Building Self Esteem. Kuala Lumpur: Golden Books Center.
- Warr, P. (1999). Well-being and the workplace, in Daniel Kahneman, Ed Diener& Norbert Schwarz (Eds), *Well-being: The Foundations of Hedonic Psychology*. New York: Russel Sage Foundation.
- Wang, C., Qu, H., & Xu, H. (2016). Relationship between social support and self-efficacy in women psychiatrists. *Chinese Nursing Research*, 2(4), 103–106.