



PROCEEDING

*Improving Quality of Life Through
Multi Sector Collaboration*

4th UPHEC

**UNIVERSITAS AHMAD DAHLAN
INTERNATIONAL CONFERENCE
ON PUBLIC HEALTH**

Yogyakarta, February, 21-22, 2018

ISBN



PROCEEDING

Universitas Ahmad Dahlan International Conference on Public Health
(UPHEC)

“Improving Quality of Life Through Multi Sector Collaboration”

ROYAL AMBARUKMO HOTEL- YOGYAKARTA, INDONESIA

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PROCEEDING

Universitas Ahmad Dahlan International Conference on Public Health



Theme:

“Improving Quality of Life through Multi Sector Collaboration”

Keynote Speaker

dr. Anung Sugihantono, M.Kes

(Directorate General of Public Health, Ministry of Health Republic of Indonesia)

Speaker I

Assoc. Prof. Dr. Yeo Kee Jiar

(Universiti Teknologi Malaysia, Malaysia)

Speaker II

Lina Handayani, Ph.D

(Universitas Ahmad Dahlan, Indonesia)

Speaker III

Dr. S.M. Raysul Haque

(Independent University, Bangladesh)

Speaker IV

Elli Nur Hayati, Ph.D

(Universitas Ahmad Dahlan, Indonesia)

Speaker V

MA. Teresa G. De Guzman, Ph.D

(University of the Philippines, Philippines)

February 21-22, 2018
Yogyakarta, Indonesia

Organized by:

Faculty of Public Health, Universitas Ahmad Dahlan

Faculty of Psychology, Universitas Ahmad dahlan

Foreword from Rector of Universitas Ahmad Dahlan

Good morning, Greeting to all of us

1. The honorable Keynote Speaker : dr. Anung Sugihartono, M.Kes (Directorate General of Public Health, Ministry of Health Republic of Indonesia)
2. Prof. Dr. Yeo KeeJiar (UTM, Malaysia)
3. Ma. Teresa G. De Guzman, Ph.D (UP Manila, Philippines)
4. Dr. S.M. Rasyul Haque, School of Public Health Independent University Bangladesh
5. Novi Chandra, Ph.D , Universitas Gajah Mada
6. Speaker from UAD : Lina Handayani, Ph.D and Elli Nurhayati, Ph.D
7. And, the excellences the invited guests, presenters, and the participants

Assalamu'alaikumWr.Wb

Welcome to the Universitas Ahmad Dahlan and the 4rd International Conference on Public Health (UPHEC). This event is held annually by the Faculty of Public Health Universitas Ahmad Dahlan with different collaborators. The principal purpose of this conference is to disseminate the scientific research in the Public Health domain, included the Quality of live through multisectoral collaboration.

Quality of life index is an estimation of overall quality of life which takes into account purchasing power index (higher is better), pollution index (lower is better), house price to income ratio (lower is better), cost of living index (lower is better), safety index (higher is better), health care index (higher is better), traffic commute time index (lower is better) and climate index (higher is better). In the year 2017 Indonesia occupies the 45th position out of 56 countries. This position an improvement after the previous year in 2016 Indonesia ranked 57th (from 61 countries). Despite the increase, Indonesia is still under neighboring countries such as Singapore, India and Malaysia.

It is obvious that the effort to improve the quality of life can not be solved only by the health sector alone. Multi-sectoral coloboration is required to achieve equitable development in various sectors in improving quality of life. It is important for us in Indonesia especially in Yogyakarta to have a program to learn the experience of multisectoral collaboration to improve quality of life from other countries. Therefore, in this 57th MILAD UAD series, we will hold an international seminar with the theme "Improving Quality of Life through Multisectoral Collaboration" which invite speakers from UAD and abroad.

This conference has become an effort in enhancing the knowledge of researchers, policy maker, studenst, other stakeholder and all participants. Hope this conference as a media for scientific gathering and collaboration between the participants taking into account in improving quality of life through multisectoral collaboration. Finally, and once again, welcome to UPHEC and with "Bismillahirohmanirohim" this conference officially opened. Thank you for your attention.

Wassalamu'alaikum Wr.Wb.

Yogyakarta, February 2018
Rector of Universitas Ahamd dahlan

Dr. Kasiyarno, M.Hum.

**Welcome Address from
Chairperson of the Universitas Ahmad Dahlan International Conference
on Public Health (UPHEC) 2018**

Assalamu'alaikum warahmatullahi wabarokatuh,

Thanks to Allah SWT, which has given us guidance and blessing, therefore we were able to complete book of abstract for the 4th Universitas Ahmad Dahlan Public Health Conference (UPHEC). This conference is a series of UAD 57th anniversary activities. It is a collaboration between Faculty of Public Health and Faculty of Psychology, UAD. The theme of the 4th UPHEC "Improving Quality of Life through Multisectoral Collaboration" is deliberately appointed to support inter-sectoral collaboration to improve health status, especially to improve the quality of life.

This book of abstract is a collection of all abstracts submitted to the 4th UPHEC. This book is compiled by scientific team guided by good abstract writing guidelines. We hope this book could be a media for all of us to share information; improving research quality, publication; and broadened our network.

Feedback from expert and everybody who have read this book are highly valuable. We would like to thanks to all who have worked hard and participated in completing this book. May this book bring benefits for all of us.

Wassalamu'alaikum warahmatullahi wabarokatuh.

Best Regards

dr. Nurul Oomariyah, M.Med.Ed
Chairperson of UPHEC 2018

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Responsibility of the contents rests upon the authors and not upon the publisher or editor

Schedule of Conference

Day	Time	Description	Venue	
Wednesday, February 21, 2018	06.30-07.30	Registration	The Kasultanan Ballroom 3	
		Setting Up the Posters	8th Floor	
	07.30-08.50	Opening Ceremony	The Kasultanan Ballroom 3	
		Safety Induction		
		Recitation of Holy Qur'an		
		Sing the National Anthem: Indonesia Raya		
		Melayu Dance		
		Speech: 1. Chairman of UPHEC : dr. Nurul Qomariyah, M.Med.Ed 2. Rector: Dr. Kasiyarno, M.Hum		
	08.50-09.35	Keynote Speech: dr. Anung Sugihantono, M.Kes "The Role of Indonesian Government in Regulating Policies to Improve Quality of Life"		
	09.35-09.45	Photo Session		
	09.45-10.00	Coffee Break		
	Plenary Session 1			
	10.00-10.30	1. Assoc.prof. Dr. Yeo Kee Jiar "Effort of NGO in promoting comprehensive sexuality education to improve quality of life among local and refugee communities: an exploration of NGO perspective in Malaysia" Moderator : Syamsu Hidayat, Ph.D	The Kasultanan Ballroom 3	
	10.30-11.00	2. Lina Handayani, PhD "Breastfeeding Promotion" Moderator : Syamsu Hidayat, Ph.D		
	11.00-11.30	Discussion		
	11.30-12.30	Break Session	Voyage 2 nd floor	
	Plenary Session 2			
12.30-13.00	1. Dr. S.M. Raysul Haque "Feasibility of Using Subjective Health Measurement Tool for Assessing Population Health in Developing Country " Moderator : Dr. AM. Diponegoro, S.Ag.,M.Ag	The Kasultanan Ballroom 3		
13.00-13.30	2. MA. Teresa G. De Guzman, Ph.D "Integrating Indigenous Knowledge Systems and Practices (IKSP) in Health and Disaster Reduction" Moderator : Dr. AM. Diponegoro, S.Ag.,M.Ag			
13.30-14.00	3. Elli Nur Hayati, Ph.D "Domestic Violence and Women's Quality of Life" Moderator : Dr. AM.Diponegoro, S.Ag.,M.Ag			

	14.00-14.30	Discussion	
	Call for Paper		
	14.30-15.30	Call for paper group A (Session 1)	Pemandangan I Room
		Call for paper group B (Session 1)	Pemandangan II Room
		Call for paper group C (Session 1)	Pemandangan III Room
	15.30-16.00	Coffee Break and Ashar Prayer	8 th floor
	16.00-17.00	Call for paper group A (Session 2)	Pemandangan I Room
		Call for paper group B (Session 2)	Pemandangan II Room
		Call for paper group C (Session 2)	Pemandangan III Room
	Workshop		
	07.00-07.30	Registration	8 th Floor
	08.00-09.00	Poster Presentation	8 th Floor
Thursday, February 22 2018	09.00-12.00	Workshop 1 : Qualitative Research Trainer: Dr. Yeo Kee Jiar Moderator : dr. Nurul Qomariyah, M.Med.Ed	Pemandangan I Room
		Workshop 2 : Role of the Indigenous Knowledge Systems and Practices (IKSP) in Health and Climate Change Adaptation Strategies Trainer: MA. Teresa G. de Guzman, Ph.D Moderator : Oktomi Wijaya, S.KM.,M.Sc	Pemandangan II Room
		Workshop 3 : Community Empowerment Trainer: Novi Chandra, Ph.D Moderator : Elli Nur Hayati, Ph.D	Pemandangan III Room
	12.00-12.30	Closing	(each room)
	12.30-13.30	Lunch	8 th floor

The Effectiveness of Dhikr Intervention for Cortisol and IgG Mechanism; Case Study for Nurses in Sultan Agung Hospital of Semarang

Rita Kartikasari^{*}, Suharto Taat Putra^{**}, Agus Suwandono^{***}, Sudiro^{***},
Rifki Muslim^{***}, Amin Syukur^{***}, Nugroho Susanto^{****}

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Article Info

Keyword:

Dhikr
Immunology
IgG

ABSTRACT

Stress factors have been caused immunological reactions that have been impacted on the disease. Previous study concluded that adaptation to environment surround through mechanism immune response, so conditions of cognitive stressors nurses performed with a refreshing mechanism through training for nurses. Study aims known correlation between dhikr intervention and increasing immunology for nursing. Study design were used time series intervention. Intervention was given for 3 week through three method intervention such teaching, guiding and environment. Research with level of significant 99% CI. Based on formula was calculated 35 samples. Data were analyzed with paired t test. Between three method intervention that environment method is domain highly score for intervention. Differences between pre and post intervention score for dhikr is significant $t = -2.808$; $p = 0.008$. Significant differences between before and after dhikr intervention for IgG. Dhikr intervention was significantly increasing of IgG levels for nurses in Sultan Agung Hospital.

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1. INTRODUCTION

Stressors for nurses can be derived from work environment such as workload, working conditions, shift work, and organizational atmosphere. Stress may modulate the immune response. Stress affects the perception of stress responses mirrored by changes in the immune response that determines the quality of individual immunity (Putra, 2011). Emotional and spiritual stressors mechanism can be explained through bio-behavioral processes associated with the body's hormone (Antoni, 2006). Stress factors can cause immunological reactions that have been impacted on the disease. Previous study concludes that adaptation to the surrounding environment can be done through immune response mechanism, so conditions of cognitive stressors that nurses received are treated with a refreshing mechanism through training for nurses (DeI Guidice, 2010).

Stressor of down-regulation of β -adrenergic receptor scan lead to decreased immune response, especially on chronic psychological aspects (Dragos, 2010). Previous study concludes that the neurological aberrations associated with abnormal processes and deviation scan be derived from the system motor, communication and social conditions (Cascio, 2010).

Humans have exposure to religious, and are more likely to have the peace of self-regulatory mechanisms affecting anxiety. Anxiety coping mechanisms lead to tendency to have relatively stable hormone adrenaline (Mc Cain, 2005). Good emotional coping mechanism causes individual's good condition. Nursing problem service requires skilled nurses in spiritual and emotional aspects. Previous

research shows that changes in the stressors condition affects CNS, ANS, endocrine, immune and metabolic regulatory systems (Bell, 2012). Prevention of stressors conditions for nurses can be done through spiritual and emotional improvement. The results of previous studies on interventions shows that providing interventions of participative action research(PAR) have no significant effects on mental health, physical health and job satisfaction, but significantly against absent due to illness, service performance and control work $p < 0.05$ (Bond, 2001), giving emphasis on the intervention of relaxation such as meditation, mantras, singing (Van den Bossche, 2003).

Intervention against stressors for nurses can be done through behavioral approach, especially in the aspect of coping ability of nurses to the work environment (Klink, 2003). There are several studies on the effects of physical training to improve immunological responses that can adapt or cope with stressors (Kinser, 2011). Spiritual activities can provide tranquility that improves the immune response modulation (Zinnbauer, 2005). Stressors that have been going on for a long time may reduce the activity of axial HPA, stimulate fatigue and increase immune-mediated inflammatory activation. The difference serum of IgG Anti Chlamydia levels is very important in monitoring the immune response (Walls, 2008). Interventions are aimed to prevent psychological issues, so that the goal of the intervention is to improve the physical and psychological events through IgG level. IgG level is important for nurses' health stressor in giving services. Study aims to know the effectiveness of *dhikr* training for IgG level for nursing students at Sultan Agung Hospital.

2. RESEARCH METHODE

Study design

The study design used was time series intervention. Intervention was given with time series intervention with three-phase intervention, including *Dhikr Jaher*, *Dhikr Sirr* and *Dhikr Fi'ly* with three methods. Design picture

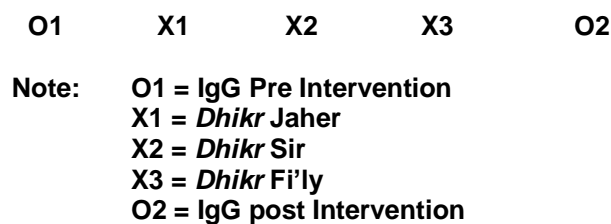


Figure 1. Study Design

Intervention method was used with teaching, guiding and environment. *Dhikr* intervention included 3 phase, including the first phase about Jaher *dhikr*, the second phase about Sir *dhikr*, and third phase about Fi'ly and ruh *dhikr*. The intervention was given for 3 weeks through three intervention method, including teaching, guiding and environment.

Interrupted Time Series Design

Sample size

The sample size estimation was based on intervention with *dhikr* sir, Jaher, fi'ly and ruh. The sample size was calculated based on the following formula: $n \geq \frac{2S_p^2}{d^2} (t_{\alpha(2)} + t_{\beta(1)})^2$, with $\sigma^2 = 72$ (source: Ostmann & Biddle, 2012), $d = 7$ (source: Ostmann & Biddle, 2012), $N = 35$. The research had a test power of 95% and a significance level of 99% confidence interval. Based on the formula, the sample size needed for the research was 35 samples. The sample selection was conducted by systematic random sampling. The samples collected through sample frame arrangement. The first interval used simple random sampling and continued with the next step.

Intervention

Dhikr training with 3 intervention methods, which are teaching, guiding and environment, including *dhikr Sirr*, *dhikr Jaher* and *dhikr ruh* and *fi'ly*. The training was conducted with three-phase intervention. The training intervention program was implemented for 3 weeks. *Dhikr Jaher* was the first intervention phase, followed by *dhikr Sirr* second intervention phase, and *dhikr ruh* and *fi'ly* 3 as the third intervention phase. *Dhikr* intervention was implemented with teaching method, guiding method and environment method. *Dhikr Jaher* included *bakhil/ dengki*(envy) aspect, *dhikr sirr* included *yaqdhah/ taubah* (reoentance)

aspect, and *dhikr fi'ly* included *tauhid/ syirik* (polytheism) aspect. The materials and packages of training modules for the intervention were developed first on the basis of the materials and modules from (Orem group, 2004, Syukur, 2012). The materials and packages of the training modules had been discussed with a public health expert.

Instrument and Data Analysis

IgG level from the pre- and post- test was acquired with Elisa test in Medical Faculty Laboratories of Diponegoro University. The effectiveness of *dhikr* was analyzed with questionnaire that included *dhikrjahir*, *dhikrsirr* and *dhikrruh*. (The questionnaire was adopted from Syukur, 2012). The data was presented in table, figure and narration. The data were analyzed with paired t-test with an interval confidence of 95%.

Validity Reliability

The instruments had been tested with validity and reliability tests. The validity test was performed with Pearson correlation test and the reliability test was performed with Alfa Cronbach with 95% confidence level. The instruments were distributed to nurses at NU hospital in Demak with a total sample of 34 nurses.

3. RESULTS

The study was conducted on 35 nurses who gave service in Sultan Agung Hospital. Based on the data, the characteristics of the research subjects, such as sex and age are described in Table 1.

4.

Table 1 Characteristics of Subjects based on sex and age.

No	Characteristic	N	%
1	Sex		
	Male	7	20
	Female	28	80
2	Age		
	20	7	20.0
	21	22	62.9
	23	6	17.1

Tabel 1 shows that the female is dominant. Additionally, the majority of the subjects are 21 years old with a total of 62.9%. Based on the data, the results of the intervention are described in Table 2.

Table 2 Results of intervention comparing the pre- and post-intervention of dhikr dzahir, sirr, and ruh/fi'ly.

No	Dhikr	Before intervention Mean±SE	After intervention Mean±SE	t	p
Dhikr dzahir (Jaher)					
1.	Teaching	0.26±0.06	0.52±0.09	-28.254	0.000
2.	Guiding	0.27±0.10	0.55±0.13	-33.65	0.000
3.	Environment	0.31±0.10	0.60±0.13	-40.02	0.000
Dhikr Sirr					
4.	Teaching	0.27±0.06	0.55±0.10	-20.03	0.000
5.	Guiding	0.27±0.10	0.58±0.12	-24.59	0.000
6.	Environment	0.30±0.10	0.66±0.14	-24.80	0.000
Dhikr Ruh					
7.	Teaching	0.28±0.06	0.64±0.14	-19.85	0.000
8.	Guiding	0.27±0.10	0.66±0.15	-20.76	0.000
9.	Environment	0.30±0.10	0.71±0.15	-22.28	0.000

Based on Table 2, we can see that there is a difference between pre- and post- *dhikr* intervention score. Based on three intervention methods, the environment method is the one domain with high intervention score. Based on the analysis, all substantial of *dhikr* is significant with $p = < 0.01$. The differences in IgG level in nurses in RSI Sultan Agung Semarang before and after intervention are shown in Table 3.

5.

Table 3. Differences in the state of IgG in nurses in RSI Sultan Agung Semarang before and after intervention

No	Subject situation	Pre-intervention	Post-intervention	t	p
		Mean±SD	Mean±SD		
	IgG	6696.95±1411.19	7762.04±1654.17	-2.808	0.008

Table 3 shows that there is a significant difference between the IgG scores before and after intervention with $t = -2.808$; $p = 0.008$. The difference between the IgG scores pre- and post-intervention is significant.

Discussion

Changes in stressor reaction are through various stages and it takes time to adapt to the source of stressors. Stressors need changes and adaptation systems of the body (stress perception) and (stress response) (Martin, 1993). Adaptation to stress in general has three phases of adaptation (Putra, 2011): alarm (warning), resistance and fatigue.

Dhikr Interventions decrease the perception of stress that can be seen in the manifestation of increasing IgG levels. The study suggests that IgG level is relatively better after getting intervention. The mechanism of *dhikr* intervention addressing for emotional and spiritual-related immunological mechanism could be explained through increase and decrease in the immune system (McCain, 2005). Stressors were first accommodated by the senses and forwarded to the emotional center which is located in the central nervous system (Walls, 2008). Stress will be channeled to organs through the autonomic nervous. Studies have proven that stress has led to changes in neurotransmitters, such as neurohormonal through various HPA axis (hypothalamic-Pituitary Adrenal Axis), HPT (hypothalamic-pituitary-thyroid axis) and HPO (hypothalamic-pituitary-Ovarial Axis) (Walls, 2008).

Based on IgG level, it was found that subjects had increased levels of IgG. The IgG level before intervention in a normal condition was between 500-1200 mg / dl for IgG (Walls, 2008). A previous study shows that immunological abnormal circumstances happen to a person who suffers from an illness. Perception Stress is reflected with changes in immune response that determines the quality of immunity (Putra, 2011; Walls, 2008; Martin, 1993). *Dhikr* intervention significantly affected neuro-immune system, such as IgG. The condition was used in the provision of material during training with methods of teaching, guiding and environment which included *dhikr* materials on *dhikr dzahir*, *sirr*, and *ruh/fi'ly* (Syukur, 2012). Physical training can improve immunological response in order adapt to the source of stressor or coping with stressors. A chronic stress that induces fatigue and increase the activation of immune-mediated inflammation may be reduced through HPA axis activities. Measuring the IgG level with Anti Chlamydia serum is very important in monitoring the immune response (Walls, 2008). The study concludes that appropriate interventions to prevent stressor for workers with religious training are relaxing, especially for those who need more cognitive activity in order to work, since they do not require excessive physical activity. An increase in IgG average score is shown, which is from of 6696.95±1411.19 to 7762.04±1654.17.

Intervention against stressors for nurses can be done through behavioral approach, especially in the aspect of coping ability of nurses in the work environment. A previous study shows that physical training can improve immunological responses to help in adapting or coping with stressors (Kinser, 2012). Measuring IgG level with Anti Chlamydia serum is very important in monitoring the immune response (Zinnbauer, 2005). The interventions aim at preventing psychological issues, so that the goal of the intervention is to improve the physical and psychological events through IgG level. The stress condition indicates that the condition of excessive immunological secretion occurs due to the mechanism of body balance (Shelton, 2010). The study shows that emotional and spiritual state is relatively better after intervention. Thus, it can be concluded that immunology modulates one's condition through increased IgG level (Shelton, 2010).

4. CONCLUSION

Dhikr interventions include *Dhikr dzahir* (Jaher), *Dhikr Sirr* and *Dhikr Fi'ly*. They significantly increased the levels of IgG level of nurses in Sultan Agung Hospital. *Dhikr dzahir* (Jaher) was more effective, compared to *Sirr* and *Fi'ly*.

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Competing interests

The authors declare that they have no competing interests

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