



FACULTY OF NURSING  
UNIVERSITAS AIRLANGGA  
*Excellence With Morality*

# INTERNATIONAL NURSING CONFERENCE

**The Proceeding of  
The 7<sup>th</sup> International Nursing Conference**  
“Global Nursing Challenges in The Free Trade Era”  
Surabaya, April 8<sup>th</sup> – 9<sup>th</sup> 2016



CO-HOST:



The Proceeding of 7<sup>th</sup> International Nursing Conference:  
*Global Nursing Challenges in The Free Trade Era*

Fakultas Keperawatan Universitas Airlangga



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Fakultas Keperawatan Universitas Airlangga

The Proceeding of 7<sup>th</sup> International Nursing Conference:  
*Global Nursing Challenges in The Free Trade Era*

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# GREETING FROM STEERING COMMITTEE

*Assalamualaikum Warahmatullahi Wabarakatuh*

Honorable Rector of Universitas Airlangga  
Honorable Dean of Faculty of Nursing, Universitas Airlangga  
Honorable Head of Co-Host Institutions  
Distinguished Speakers and all Participants

Praise the presence of God Almighty, for his mercy so that Faculty of Nursing Universitas Airlangga can organized The 7<sup>th</sup> International Nursing Conference on the theme "The Global Nursing Challenges in The Free Trade Era". Welcome in Surabaya, City of Heroes Indonesia.

This international nursing conference is conducted in cooperation with 12 nursing schools throughout the nation. These institutions are the Faculty of Nursing and Midwifery Universitas Nahdlatul Ulama Surabaya, Faculty of Health Science Universitas Muhammadiyah Surabaya, STIKES Ngudia Husada Bangkalan, STIKES Pemerintah Kabupaten Jombang, STIKES Maharani Malang, Poltekkes Kementerian Kesehatan Malang, Poltekkes Kementerian Kesehatan Surabaya, Faculty of Health Science Universitas Islam Sultan Agung Semarang, Faculty of Health Science Universitas Pesantren Tinggi Darul Ulum Jombang, STIKES Insan Cendekia Husada Bojonegoro, STIKES Nurul Jadid Probolinggo, STIKES YARSI Mataram, and Faculty of Nursing Universitas Muhammadiyah Banjarmasin. Fortunately, this international nursing conference also supported by our partner institutions abroad: Flinders University\* (Australia), and Japan International Cooperation Agency (JICA); and also by professional and other organisations including: AINEC\* (The Association of Indonesian Nurse Education Center), Ibn-e-Seina Hospital & Research institute Multan (Pakistan) and INNA\* (Indonesian National Nurses Association).

Participants of this conference are lecturers, nurses, students both from clinical and educational setting, regional and overseas area.

Finally, I would like to thanks to all speakers, participants, co-host institutions and sponsors so that this conference can be held succesfully.

Please enjoy the international conference, i hope we all have a wonderful experience at the conference.

*Wassalamualaikum Warahmatullahi Wabarakatuh*

**Steering Committee**

# OPENING REMARK FROM THE DEAN OF FACULTY NURSING

*Assalamualaikum Warahmatullahi Wabarakatuh*

Honorable Rector of Universitas Airlangga  
Distinguished speakers and all Participants

First of all I would like to praise and thank God for the blessing and giving us the grace to be here in a good health and can hold this conference together. Secondly, it is a great privilege and honor for us to welcome every one and thank you very much for your participation and support for the 7<sup>th</sup> International Nursing “**The Global Nursing Challenges in The Free Trade Era**”.

Globalization opens opportunities for nurses to compete with other nurses and work abroad. Nurses should constantly improve their competency in providing excellent nursing care. The sustainability of education related to the latest science and nursing knowledge is very important for all nurses who are working in the clinic, community, and educational nursing system, to enhance their competencies

Research and education into clinical and community practice is very important to enhance nursing competencies with nurse colleagues in the international sphere. Indonesia face problems such low frequency of nursing conference, number of researches, also international publications. This problem can hinder quality improvement of nursing services.

Along with Universitas Airlangga vision to become a world class university and enter top World University Ranking, Faculty of Nursing, participates actively in reaching the vision. To achieve World Class University ranking, faculty needs to meet the standards of World’s top Universities such as Academic reputation, employer reputation, publication, faculty standard ratio, international students and exchange.–International Nursing Conference is one of the few strategies that have been implemented by the faculty to increase Publication standard.

In 2016, the Faculty of Nursing Universitas Airlangga started to collaborate with 12 nursing schools throughout the nation that have the same concern to overcome the situations. These institutions including Faculty of Nursing and Midwifery Universitas Nahdlatul Ulama Surabaya, Faculty of Health Science Universitas Muhammadiyah Surabaya, STIKES Ngudia Husada Bangkalan, STIKES Pemerintah Kabupaten Jombang, STIKES Maharani Malang, Poltekkes Kementerian Kesehatan Malang, Poltekkes Kementerian Kesehatan Surabaya, Faculty of Health Science Universitas Islam Sultan Agung Semarang, Faculty of Health Science Universitas Pesantren Tinggi Darul Ulum Jombang, STIKES Insan Cendekia Husada Bojonegoro, STIKES Nurul Jadid Probolinggo, STIKES YARSI Mataram, and Faculty of Nursing Universitas Muhammadiyah Banjarmasin. Under the concern of long commitment for better health outcome of Indonesia, the Faculty of Nursing Universitas Airlangga once more aims to elaborate with the aforementioned institutions and international universities through holding an international nursing conference. The international universities include: Flinders University\* (Australia), Japan International Cooperation Agency (JICA); and professional organisations including: AINEC\* (The Association of Indonesian Nurse Education Center), Ibn-e-Seina Hospital & Research institute Multan (Pakistan) and INNA\* (Indonesian National Nurse Association).

Finally, I would like to thanks to all speakers, participants, and sponsorships that helped the success of this event. I hope that this conference have good contribution in increasing the quality of nursing and nursing care.

Please enjoy the international conference. I hope, we all have a wonderful time at the conference.

*Wassalamualaikum Warahmatullahi Wabarakatuh*

**Prof. Dr. Nursalam, M.Nurs (Hons)**

Dean, Faculty of Nursing

Universitas Airlangga

# OPENING SPEECH

## UNIVERSITAS AIRLANGGA RECTOR

*Assalamu'alaikum wa-rahmatullahi wa-barakatuh.*  
May the peace, mercy and blessings of Allah be upon you.

*Alhamdulillah!* Praise be to Allah, the Almighty which gives us the opportunity to gather here in “THE 7<sup>TH</sup> INTERNATIONAL NURSING CONFERENCE“. Let us also send *shalawat* and *salam* to our Prophet Muhammad SAW (Praise Be Upon Him): *Allaahumma shalli 'alaa Muhammad wa 'alaa aali Muhammad.* May Allah give mercy and blessings upon Him.

Ladies and Gentlemen,

“Everything changes and only the change itself remain unchanged,” that is some words of wisdom reminding us to the absolute truth that there is no such thing in this world can hold back the tide of change.

Nursing Education, as a professional field, inevitably has to improve along with the changes. And if it is possible, it should always be vigilant to anticipate a period of change ahead.

In this regard, we are already in ‘THE FREE TRADE AREA’. It is one of those changes and we have to deal with the problems of its implementation. Related to these problems, we expect universal Nursing Education to be able to provide attention to all aspects of public healthcare services, anywhere and in any social classes. Therefore, let us always make efforts to quality improvements, such as in the relationship between nurses and the patients, disease prevention, and patients’ treatments.

Ladies and Gentlemen,

Higher education on Nursing has its strategic roles to achieve excellent public healthcare services. Therefore, its education format must be flexible, able to adapt and anticipate any influences such as from boundless improvements of technology, economy, politics, culture and other aspects of development. At this point, joint-researches or joint-programs, seminars, scientific publications, or any other collaborations should be conducted more frequently by all nursing higher education institutions. These advance steps are necessary to achieve “Healthy Global Communities” sooner.

As a result, let us exploit these changes around us to create a condition where the quality of public healthcare service is so high that it brings happiness to all. Thus, competence’s improvement of all nursing students is indispensable. This improvement, of course, should be synchronized with the changes in all aspects. Let us optimally develop this nursing science by maintaining connections and cooperation with other institutions and finding opportunities for future collaborations with others.

Ladies and Gentlemen,

The organization of this international nursing conference must be appreciated. Firstly, because it is the seventh time of the conference organization. Secondly, the theme of this conference, “THE GLOBAL NURSES CHALLENGES IN THE FREE TRADE ERA”, has a strong sense of urgency and very appropriate at this moment.

Therefore, I would like to express my deepest gratitude to the organizing committee, the nursing education institutions- domestic or international-, all the keynote speakers and other parties which support this splendid conference.

We extend a warm welcome to all delegates and those who have travelled from foreign parts. We hope that your attendance will be rewarded academically, that you will make new friends and that you will be fulfilled through the conference activities and the artistic delights of Surabaya.

Ladies and Gentlemen,

Merely to expect Allah gracious blessings, I hereby officially open this "SEVENTH INTERNATIONAL NURSING CONFERENCE" by saying grace: "*Bismillahirrahmanirrahim*". May the objectives of this organization fulfilled and the conference be a success. Therefore let us again say: *Alhamdulillah!* Praise be to Allah.

*Wassalamu'alaikum wa-rahmatullahi wa-barakatuh.*  
Universitas Airlangga Rector,

**Prof. Dr. Moh. Nasih, SE., MT., Ak., CMA.**  
NIP. 196508061992031002



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Dr. Ririn Probowati,S.Kp,M.Kes.

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# CONFERENCE SCHEDULE

## DAY 1, 8<sup>th</sup> April 2016

06.30-07.30	Registration
07.30-08.00	Indonesia Raya Anthem Hymne Airlangga Welcoming Show (Tsuroya ) Unipdu Jombang
08.00-08.30	<b>Opening Remarks</b> <ul style="list-style-type: none"> <li>- Speech from Steering Committee</li> <li>- Speech from Dean Faculty of Nursing, Universitas Airlangga</li> <li>- Speech from Rector Universitas Airlangga</li> </ul> Opening Pray: Bpk H. M. Syakur (in Bahasa)
08.30 – 08.50	<b>Keynote Speaker</b> Junaidi Khotib, S.Si, M.Kes., PhD.
08.50 - 09.00	<ul style="list-style-type: none"> <li>- Certificate &amp; Souvenir Given to Keynote Speaker</li> <li>- Opening Poster Presentation Sessions</li> </ul>
09.00-09.30	Coffee Break
09.30-09.45	Music performance: “Daul” Madura

## Plenary Session I

09.45 – 10.05	<b>Speaker 1</b> <b>Ikuko Seki (JICA)</b> Chief Advisor Japan International Cooperation Agency (JICA) <i>“Advanced Nursing Practice in the Global Nursing”</i>
10.05 - 10.25	<b>Speaker 2</b> <b>Harif Fadhillah, S.Kp, SH, MH.Kes</b> Chief of INNA <i>“Indonesian Nurses Ready to Compete in The Free Trade Era”</i>
10.25 – 10.45	<b>Speaker 3</b> <b>Dr. Muhammad Hadi, SKM., M.Kep.</b> Chief of AINEC <i>“Challenges of Nursing Education in Nursing Education in Asean Economic Community Era”</i>
10.45 – 11.05	Plenary Discussion Certificate & Souvenir Given to Speakers
11.05 – 12.00	Poster Presentation 1
12.00-12.30	Prayer and Lunch

## Plenary Session II

12.30 – 12.50	<b>Speaker 4</b> <b>Kristen Graham, RN, RM, MNg, MPH&amp;TM, MPEd&amp;Tr, GDipMid, GDipHSc</b> School of Nursing and Midwifery, Flinders University, Australia <i>“Promoting Inter professional Collaboration to Improve Population Health Outcomes; Working with and Learning from Each Other”</i>
12.50 – 13.30	<b>Speaker 5</b> <b>Dr. Nur Mukarromah.,S.KM.,M.Kes.</b> Dean of FIK Universitas Muhammadiyah Surabaya, Indonesia <i>“Social Capital Approach: Prevention Of Dengue Hemorrhagic Fever With Improvement Of Community Sustainability Awareness”</i>

13.30 – 13.50	<b>Speaker 6</b> <b>Dr. M. Hasinuddin, S.Kep., Ns., M.Kep.</b> Director of STIKES Ngudia Husada Madura, Indonesia <i>“Enhancing Nurse’s Competency in Child Care Based on Evidence”</i>
13.50 – 14.10	Plenary Discussion Certificate & Souvenir Given to Speakers
14.10 – 14.40	Coffee Break and Prayer

### Plenary Session III

14.40 - 15.00	<b>Speaker 7</b> <b>Dr. Tri Johan Agus Y., S.Kp., M.Kep.</b> POLTEKKES KEMENKES Malang, Indonesia <i>“Nursing Care Management is A Success Key in Health Services”</i>
15.00 – 15.20	<b>Speaker 8</b> <b>Dr. Hanik Endang N, S.Kep., Ns., M.Kep.</b> Faculty of Nursing, Universitas Airlangga Indonesia <i>“The Dimensions of Breast Cancer with Positive Perception Through Psychospiritual ‘Sehat’ ( Syukur Selalu Hati dan Tubuh)”</i>
15.20 - 15.40	Plenary Discussion Certificate & Souvenir Given to Speakers

### DAY 2, 9<sup>th</sup> April 2016

07.00–08.00	Registration
08.00-08.15	<b>Opening Show</b> Traditional Dance : Bedoyo

### Plenary Session IV

08.15 – 08.35	<b>Speaker 9</b> <b>Madiha Mukhtar</b> Head of Nursing Services in 500 bedded Pvt Health care sector, Ibn-e-Seina Hospital & Research institute Multan, Pakistan <i>“Perception of Indonesian Nursing Students Regarding Caring Behavior and Teaching Characteristics of Their Clinical Nursing Instructors”</i>
08.35 - 08.55	<b>Speaker 10</b> <b>Dr. Makhfudli, S.Kep., Ns., M.Ked.Trop.</b> Faculty of Nursing, Universitas Airlangga Indonesia <i>“Self-Efficacy Enhancement Development Model Against Biological Response on Patients with Pulmonary Tuberculosis in Public Health Center of Surabaya City Region”</i>
08.55 – 09.15	<b>Speaker 11</b> <b>Ima Nadatien, SKM.,M.Kes</b> Nahdlatul Ulama University of Surabaya, Indonesia <i>“Pride As The Attitude To Optimize The Nurse Performance”</i>
09.15– 09.35	Plenary Discussion Certificate & Souvenir Given to Speakers
09.35-09.45	<b>Traditional Dance Performance: Limade</b>
09.45 – 10.15	Coffee Break

### Oral Presentation 1

10.15 – 12.15	<b>Room 1 (Garuda Mukti)</b>
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	Medical Surgical and Critical Care Nursing Management and health policy Geriatric Nursing
	<b>Room 2 (Kahuripan 301)</b> Medical Surgical and Critical Care Nursing Management and Health Policy Geriatric Nursing
	<b>Room 3 (Kahuripan 302)</b> Women Health and Pediatric Nursing
	<b>Room 4 (Ruang Sidang A)</b> Women Health And Pediatric Nursing
	<b>Room 5 (Ruang Sidang B)</b> Community Health and Primary Care Nursing Geriatric Nursing
12.15 – 13.15	Prayer and Lunch
	Poster Presentation 2

### Oral Presentation 2

13.15 - 15.15	<b>Room 1 (Garuda Mukti)</b> Medical Surgical and Critical Care Nursing Community Health and Primary Care Nursing Geriatric Nursing
	<b>Room 2 (Kahuripan 301)</b> Medical Surgical and Critical Care Nursing Community Health and Primary Care Nursing Geriatric Nursing
	<b>Room 3 (Kahuripan 302)</b> Woment Health And Pediatric Nursing Mental Health Nursing
	<b>Room 4 (Ruang Sidang A)</b> Woment Health And Pediatric Nursing Mental Health Nursing Geriatric Nursing
	<b>Room 5 (Ruang Sidang A)</b> Educational and Interprofesional Collaboration Geriatric Nursing
15.15– 15.30	Coffee Break
15.30 – 15.45	<b>Closing Remark</b> <b>Certificate Given for Co. Host &amp; Participant</b>

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# SYSTEMIC LUPUS ERYTHEMATOSUS : CORRELATION BETWEEN SENSORY KNOWLEDGE, SELF-EFFICACY, PREVENTIVE ACTION TOWARDS TRIGGER FACTORS, SELF-CARE PRACTICE AND QUALITY OF LIFE

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## ABSTRACT

**Introduction:** Systemic Lupus Erythematosus (lupus) and its complications could lower individual's health-related quality of life (HRQOL). Self-care is highly needed for sustaining self-involvement in lupus management. People with lupus need to have proper sensory knowledge and high self-efficacy for implementing preventive action towards trigger factors and self-care practice. This study aims to explain the correlation between sensory knowledge, self-efficacy, preventive action towards trigger factors, self-care practice and HRQOL in lupus patients. Method: This is a cross-sectional study mixing the model of Self-Care and Precede Proceed. Population was all lupus patients doing regular check up in Rheumatology Unit of Dr. Soetomo Hospital in October-December 2014. Sample size was 36 chosen by total sampling. Independent variables: sensory knowledge, self-efficacy, preventive action towards trigger factors and self-care practice; dependent variable: HRQOL. Instruments: ODAPUS-HEBI and LUPUSPRO. Data analysis: regression test;  $\alpha \leq 0.05$ . Result: 36 females respondents participated; suffered disease for 0.5 – 12 years.. Age range: 20-44 years old. Mostly were high school graduates, married and actively working. Most respondents have high sensory knowledge and self-efficacy; optimum preventive action and self-care practice, but HRQOL was not optimal. All data were normally distributed. Only sensory knowledge proved to be linear with HRQOL. There was a weak significant correlation identified between sensory knowledge and HRQOL ( $r=0.344$ ,  $p=0.040$ ); while self-efficacy, preventive action and self-care practice proved to have no correlation with HRQOL ( $p>\alpha$ ). Conclusion: Sensory knowledge is correlated with HRQOL in people with lupus. Self-efficacy, preventive action towards trigger factors and self-care practice were proved to have no correlation.

**Key words:** Systemic Lupus Erythematosus, correlation, knowledge, self-efficacy, preventive action, self-care, HRQOL

## BACKGROUND

Lupus is a disease where the immune system which normally fight infection, starts attacking healthy cells in the body or autoimmune phenomenon (DeLong, 2012). In Indonesia people with lupus are often called odapus. Lupus can be a burden and source of disability and also poor HRQOL (Cho *et al.*, 2014). Lupus is a chronic autoimmune disease which signs and symptoms may persist for more than six weeks and often up to several years (Lupus Foundation of America, 2012). However, there are also odapus who can manage the symptoms of lupus so well, so that she looks like a healthy person (quiescent). Increased intensity of exposure to the trigger

factors will surely cause lupus symptoms more often. In anticipation of this, odapus need to have adequate sensory knowledge about lupus and high self-efficacy in order to facilitate preventive action toward trigger factors and self-care practice at home. The goal is odapus can achieve a high HRQOL. The correlation between sensory knowledge, self-efficacy, preventive action towards trigger factors and self-care practice with HRQOL in odapus remains unclear.

Lupus has suffered by at least five million people worldwide. Lupus can affect men and women at any age, but 90% of those diagnosed with lupus are women and lupus prone age is 15-44 years old. 70% of lupus

cases is SLE (Systemic Lupus Erythematosus) (S.L.E. Lupus Foundation, 2012). In Indonesia, the estimated number of people with lupus are about 200-300 thousand people, the trend is increasing every year, the ratio of male and female is 1:6-10 (Yayasan Lupus Indonesia, 2012; Utomo, 2012).

Trigger factors of lupus symptoms such as pregnancy, stress, fatigue, exposure to sunlight and chemical substances (Cooper, *et al.*, 2010). Frequent symptoms reported by odapus are fever, skin rash (photosensitive), joint swelling/ pain, weakness/fatigue, and kidney disorders (NIAMS, 2012). Renal, neurological and haematological complications are the most often found in odapus (Kannangara, *et al.*, 2008). As a result, lupus proven to reduce odapus HRQOL significantly, such as depression by 8-44% (Jarpa, *et al.*, 2011), infertility (Baker, *et al.*, 2009), limitations in daily activity especially when joint pain relapse (McElhone, *et al.*, 2010), environment withdrawal (Seawell & Danoff-Burg, 2005) discrimination, difficulties in finding jobs, changes in interpersonal relationship (de Barros, *et al.*, 2012), obstacles in social roles (Wahyuningsih, *et al.*, 2013).

Odapus need to have a high sensitivity to what was going and aware of the impact in many areas of life. Lupus symptoms that arise from time to time have the potential to interfere with daily activities and cause many other problems. In order to achieve optimal health status and high HRQOL odapus must be proactive in managing lupus. One way is to adopt healthy behaviors and manage lupus independently through preventive action towards trigger factors and self-care practice. This study aimed to analyze the correlation between sensory knowledge, self-efficacy, preventive action towards trigger factors and self-care practice with HRQOL in odapus.

## METHODOLOGY

This is a cross-sectional study mixing the model of Self-Care (Orem, 1971) and Precede Proceed (Green & Kreuter, 1991). Population was all lupus patients doing regular check up in a Rheumatology Unit of one big public hospital in East Java, by period of October-December, 2014. Sample was determined by inclusion criteria: pure lupus (code: M32), adult women (19-44 years old), disease duration at least 6 months, at least high school graduated, monthly income at least

minimum wage. Exclusion criteria: lupus with complication (code: M32.0,M32.1,M32.9), experiencing mental disorder and/or psychological disturbance (depression, anxiety, burned out), resigned and/or hospitalized by the time of study, refusing home visit, rejecting informed consent, working as health care professional. Sample size was 36 chosen by total sampling.

Independent variables: sensory knowledge, self-efficacy, preventive action towards trigger factors and self-care practice; dependent variable: HRQOL. Researcher developed her own instrument for measuring all independent variables, namely ODAPUS-HEBI which consists of four parts. Instrument testing in 18 odapus proved that ODAPUS-HEBI was valid and reliable by result: 1) sensory knowledge:  $r=0.477-0.774$ ;  $\alpha=0.519$ ; 2) self-efficacy:  $r=0.503-0.903$ ;  $\alpha=0.927$  (high reliability); 3) preventive action towards trigger factors:  $r=0.547-0.908$ ;  $\alpha=0.945$  (high reliability); 4) self-care practice:  $r=0.470-0.885$ ;  $\alpha=0.949$  (high reliability). Dependent variable was measured by LUPUS-PRO (Jolly, *et al.* 2012). This instrument assesses quality of life specifically in odapus, consist of 42 items. Instrument testing in 25 odapus proved that LUPUS-PRO WAS valid and reliable ( $r=0.408-0.764$  and  $\alpha=0.803$ ; high reliability). Data analysis was started with normality and linearity test then regression test;  $\alpha \leq 0.05$ . Ethical concern: informed consent, anonymity and confidentiality.

## RESULT

36 respondents participated in this study. Mostly late adulthood (44.4%) who was married (77.8%) and lived with spouse (77.8%). Respondents were mostly high school graduated (83.3%) working as entrepreneurs (33.3%) and private employees (33.3%) with independent income of more than Rp. 1.5 to 2 million per-month (33.3%). Disease duration was mostly 1-2 years (33.3%). Arthritis was reported as the most frequent lupus symptom (61.1%) and fatigue was mostly reported as trigger factor (66.7%).

All respondents was categorized as stable according to indicators in Ferenkeh-Koroma (2012) and mild lupus according to PRI indicators (2011). They were rarely experienced lupus flare, 16.7% with skin rash and 5.6% with chest pain in deep breathing. Respondents usually meet health personnel

during her routine control and other respondents have a personal physician. Methylprednisolone and Cyclosporine were identified as the most frequent to be consumed. Dias & Isenberg (2014) found in mild lupus, the joint is the primary organ affected. Gordon (2013) argues that fatigue is the originator of the most common lupus symptoms. These matched to the study result.

All data were normally distributed ( $p=0.674$ ). Only sensory knowledge found to be linear with HRQOL ( $p=0.299$ ), then tested by simple linear regression; while the other variables were tested by nonlinear regression. Sensory knowledge proved to be correlated with HRQOL in odapus ( $r = 0.344$  and  $p = 0.040$ ); it affected HRQOL by 11.8%, while the remaining 88.2% is influenced by unidentified factors. Self-efficacy, preventive action and self-care practice were proved to have no correlation with HRQOL in odapus ( $p=0.212$ ;  $p=0.130$ ;  $p=0.053$  respectively).

## DISCUSSION

### 1. Sensory Knowledge and HRQOL

Sensory knowledge was identified as the only independent variable that has a linear correlation with HRQOL in odapus. Study results showed that only 66.7% from 72.2% respondents who possess high knowledge and perform self-care optimally at home. The resulting correlation coefficient is quite low ( $r=0.344$ ). Knowledge has been identified specifically in the domain of health behaviors specifically in predisposing factors affecting individual HRQOL indirectly (Green & Kreuter 1991). This is consistent with study result showing that knowledge affecting HRQOL in odapus by 11.8% only; a value that is less representative.

Thumboo & Strand (2007) concluded that knowledge of lupus is one of the factors proved to be associated with HRQOL in odapus. Other factors are age, disease duration, educational status, disease activity, organ damage, self-efficacy, social support / psychosocial factors, the use of corticosteroid/cytotoxic agents and specific manifestations such as kidney failure or fibromyalgia.

Mancuso, *et al.* (2010) in the study of asthma stated that the cognitive variables such as knowledge, attitude, and self-efficacy can affect asthmatic client ability to be an effective self-manager. Being able to be an effective

self-manager is very important in the process of managing chronic disease at home.

Most respondents proved to have high knowledge about lupus. This could be used as a basis for building commitment in lupus management at home. The positive correlation between sensory knowledge and HRQOL proved that knowledge about lupus as a chronic disease has a little more influence on HRQOL through subjective perception. Knowledge can affect the living standard set individually, in which this variable was not measured in this study because of instrument limitation (LUPUS-PRO).

### 2. Self-efficacy and HRQOL

This study result showed that self-efficacy is not correlated with HRQOL in odapus. Self-efficacy was proved to be nonlinear with HRQOL; 61.1% respondents who have high self-efficacy possess non-optimal HRQOL. This has led to statistically insignificant correlation between self-efficacy and HRQOL. Self-efficacy potentially associated with the specified individual standard of life which is closely related to general quality of life. This living standard was not measured because of instrument limitation. The feelings can control the disease is able to give satisfaction to odapus and potentially could improve the perceived HRQOL significantly.

### 3. Preventive Action towards Trigger Factors and HRQOL

The study result indicated that preventive action towards trigger factors uncorrelated to HRQOL in odapus. Preventive action towards trigger factors proved to be nonlinear with HRQOL; 77.8% respondents who took optimal preventive action possess non-optimal HRQOL. This has led to statistically insignificant correlation between preventive action and HRQOL. No correlation identified potentially due to high living standard set by respondent

In this study, the identified trigger factor of lupus includes physical stress (mostly), emotional stress, sunlight, irregular meal time, lack of sleep and hormonal changes. Respondents find it difficult to keep her body from fatigue due to work or carry out her role as a mother who must manage the household chores. Regarding physical stress, respondents expressed some difficulties in preventing exposure due to high role demands, because of self-limitation, limited resources

and lack of family support. Other trigger factors which considered hard to prevent: emotional stress (depend on coping mechanisms), sunlight (depend on activity), etc.

#### 4. Self-care Practice and HRQOL

Study results showed that self-care practice uncorrelated to HRQOL in odapus. Self-care practice proved to be nonlinear with HRQOL; 72.2% respondents perform optimal self-care practice but possess non-optimal HRQOL. This has led to statistically insignificant correlation between self-care practice and HRQOL. Self-care practice can be promoted as an alternative for managing lupus in community context though, mainly because of the high involvement of odapus in disease management process.

Study limitations: 1) varied demographic characteristic; 2) retrospective survey allows emerging doubts; 3) cross-sectional design also has drawback/bias; 4) internal consistency and content validity of ODAPUS-HEBI should be tested in larger clinical trial; and 5) there is no instruments measuring HRQOL specifically in lupus patients which contains items examined the individual living standards.

Psychological status, level of independence, social relationship, social determinants (employment, housing, education), culture, shared values and spirituality should be investigated also in conjunction with sensory knowledge and self-efficacy because all of these variables can affect individual overall HRQOL. Motivation and self-awareness should be examined also in conjunction with self-efficacy for these three variables potentially affecting self-care practice in odapus, especially in community context.

#### CONCLUSION

Sensory knowledge correlated with HRQOL in odapus and affects it by 11.8%. Self-efficacy, preventive action towards trigger factors and self-care practice have no correlation with HRQOL in odapus.

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