

**UNIVERSITI SAINS MALAYSIA  
GERAN PENYELIDIKAN UNIVERSITI PENYELIDIKAN  
LAPORAN AKHIR**

**EXPLORING THE EFFECT OF QURANIC RHYTHM  
THERAPY FOR TINNITUS SUFFERERS**

**PENYELIDIK**

**DR. NIK ADILAH NIK OTHMAN**

**PENYELIDIK BERSAMA**

**DR. MOHD NORMANI ZAKARIA  
PROF. DR. DINSUHAIMI SIDEK  
PN. WAN SUHAILAH WAN HUSAIN  
PN. AW CHEU LIH  
PROF. DR. MOHD KHAIRI MD DAUD  
PROF. MADYA DR. ROSDAN SALIM  
PROF. DR. BAHARUDIN ABDULLAH  
DR. ZURAIDA ZAINUN**

**2015**



**FINAL REPORT**  
**EXPLORATORY RESEARCH GRANT SCHEME (ERGS)**  
*Laporan Akhir Skim Geran Penyelidikan Eksploratori (ERGS) IPT*  
*Pindaan 1/2015*

**DITERIMA**

22 APR 2015

Pejabat Penyelidikan

**A RESEARCH TITLE:** Exploring the Effect of Quranic Rhythm Therapy for Tinnitus Sufferers

**PHASE & YEAR:** 1/2012

**START DATE:** 1 August 2012

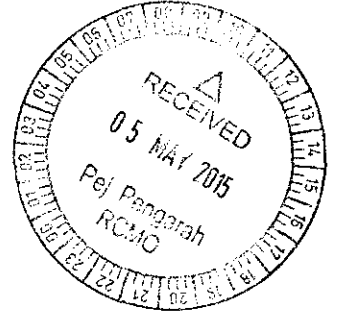
**END DATE:** 31 July 2014

**EXTENSION PERIOD (DATE):** RMC LEVEL:  
KPM LEVEL: 31 January 2015

**PROJECT LEADER:** Dr. Nik Adilah Binti Nik Othman

**I/C / PASSPORT NUMBER:** 730302-03-5116

- PROJECT MEMBERS:** (including GRA)
1. Dr. Mohd Normani Zakaria
  2. Prof. Dr. Dinsuhaimi Sidek
  3. Pn. Wan Suhailah Wan Husain
  4. Pn. Aw Cheu Lih
  5. Prof. Dr. Mohd Khairi Md Daud
  6. Prof. Madya Dr Rosdan Salim
  7. Prof. Dr Baharudin Abdullah
  8. Dr. Zuraida Zainun



**PROJECT ACHIEVEMENT (Prestasi Projek)**

**B**

ACHIEVEMENT PERCENTAGE			
Project progress according to milestones achieved up to this period	0 - 50%	51 - 75%	76 - 100%
Percentage			95%
RESEARCH OUTPUT			
Number of articles/ manuscripts/ books <i>(Please attach the First Page of Publication)</i>	Refereed Journal	Non-Refereed Publication	
	1		
Conference Proceeding <i>(Please attach the First Page of Publication)</i>	International	National	
		2	
Intellectual Property <i>(Including Paten, Copyright, Industrial Design, layout Design of Integrated Circuit &amp; Trademarks)</i>			

**HUMAN CAPITAL DEVELOPMENT**

Human Capital	Number				Others (please specify)
	On-going		Graduated		
Citizen	Malaysian	Non Malaysian	Malaysian	Non Malaysian	
<b>No. PHD STUDENT</b>					
Student Fullname: IC / Passport No: Student ID:					
<b>No. MASTER STUDENT</b>	1				
Student Fullname: IC / Passport No: Student ID:	Wan Suhailah Bt Wan Husain 760224-11-5088 PSKM0064/11				
<b>No. UNDERGRADUATE STUDENT</b>			2		
Student Fullname: IC / Passport No: Student ID:			1. Nor Aliza Bt Abdullah 900511-03-5998 106016 2. Nor Ellia Bt Che Deraman 910709-03-5810 109482		
<b>Total</b>	1		2		

**EXPENDITURE (Perbelanjaan)**

<b>C</b>	<b>Budget Approved (Peruntukan diluluskan)</b>	<b>: RM 120,000.00</b>
	<b>Amount Spent (Jumlah Perbelanjaan)</b>	<b>: <u>RM 119 633.35</u></b>
	<b>Balance (Baki)</b>	<b>: <u>RM 366.65</u></b>
	<b>Percentage of Amount Spent (Peratusan Belanja)</b>	<b>: 99.7 %</b>

**ADDITIONAL RESEARCH ACTIVITIES THAT CONTRIBUTE TOWARDS DEVELOPING SOFT AND HARD SKILLS**  
(Aktiviti Penyelidikan Samplokan yang menyumbang kepada pembangunan Kemahiran Insaniah)

<b>International</b>		
Activity	Date (Month, Year)	Organizer
Tinnitus and Hyperacusis Therapy Master Class	8 – 12 October 2012	University of London, London, UK
<b>National</b>		
Activity	Date (Month, Year)	Organizer
1. Seminar Tinnitus Update	20 December 2012	Program Audiologi, PPSK USM
2. 3rd Questionnaire Workshop	25 – 28 August 2014	Unit Biostatistik dan Metodologi Penyelidikan, PPSP USM
3. 1st Kangar Conference	1 -2 March 2013	Hospital Kangar, Perlis
4. 3rd Malaysian Audiology Scientific Conference (MASCO)	15 -17 May 2014	Malaysian National Society of Audiologists (MANSA)
5. 6th Malaysian International ORL HNS Congress	29-31 May 2014	Malaysian Society of ORL-HNS
6. 10th Allied Health Scientific Conference Malaysia 2014	9 – 10 September 2014	Association of Allied Health Sciences Division Personnel
7. 2nd Kangar Conference	1 – 2 April 2015	Hospital Kangar, Perlis

**F PROBLEMS / CONSTRAINTS IF ANY (Masalah / Kekangan sekiranya ada)**

1. Some research participants withdrew from the study causing missing data.
2. Lack of cooperation from the participants and appointments have to be rescheduled frequently.
3. The MP3 players were malfunctioning and replaced with the new ones for some participants.

**F RECOMMENDATION (Cadangan Perbaikan/Ubahsuaian)**

**G RESEARCH ABSTRACT (Do not More Than 200 Words) (Abstrak Penyelidikan - Tidak Melebihi 200 patah perkataan)**



Since tinnitus is common among otological patients, an effort was made to explore the effectiveness of new treatments. This study compared the effectiveness of three types of intervention techniques: broadband noise therapy (conventional method), quranic therapy (new method) and psycho-audiological method (PAM) (new method). Patients with tinnitus were randomly assigned into these three intervention groups. Minimum masking level (MML) and Borang Evaluasi Soal selidik Tinnitus (BEST) were used to document treatment progress during pre-therapy and post-therapy (2 weeks, 3 months and 6 months) sessions. During the data collection, some data were incomplete due to lack of participants' cooperation. The final data analyses revealed positive outcomes in all groups tested (n=24 for broadband therapy, n=22 for quranic therapy and n=28 for PAM therapy). That is, the improvements in tinnitus severity were noted in all groups (p<0.05). PAM and quranic therapies were more superior to the conventional broadband noise therapy. Specifically, in PAM group, improvements were seen as early as two weeks post-therapy (p<0.05). More improvements in tinnitus severity were noted in quranic group than broadband group at 3 and 6 months post-therapy (p<0.05). The new treatments (PAM and quranic) have potential for treating patients with tinnitus and should be implemented clinically.

Date : 21/4/2015  
Tarikh

Project Leader's Signature:   
Tandatangan Ketua Projek

**H COMMENTS IF ANY / ENDORSEMENT BY RESEARCH MANAGEMENT CENTER (RMC) (Komen / Sekiranya ada / Pengesahan oleh Pusat Penyelidikan / Penyelidikan)**

Ranggi oleh pembantangeris

Name:   
Nama:   
Date: 5/5/15  
Tarikh: 5/5/15

Signature:  
Tandatangan:

PROF. DR LEE KEAT TEONG  
Pegawai  
Pejabat Pengurusan & Kreativiti Penyelidikan  
Universiti Sains Malaysia

## ABSTRAK PEMBENTANGAN POSTER

### ABSTRACT OF POSTER PRESENTATION

#### A SURVEY OF TINNITUS MANAGEMENT AMONG ORL SPECIALISTS, AUDIOLOGISTS AND MEDICAL OFFICERS IN MALAYSIA

*Wan Husain WS<sup>1</sup>, Nik Othman NA<sup>2</sup>, Zakaria MN<sup>3</sup>, Othman A<sup>4</sup>,*

<sup>1</sup>Msc Candidate, Audiology Programme, School of Health Sciences, Universiti Sains Malaysia, Kelantan, Malaysia

<sup>2</sup>Lecturer, Audiology Programme, School of Health Sciences, Universiti Sains Malaysia, Kelantan, Malaysia

<sup>3</sup>Programme Chair, Audiology Programme, School of Health Sciences, Universiti Sains Malaysia, Kelantan, Malaysia

<sup>4</sup>Lecturer, Paediatric Department, School of Medical Sciences, Universiti Sains Malaysia, Kelantan, Malaysia

**Objective :** To determine the status of tinnitus management provided by three different professionals in Otorhinolaryngology (ORL) Department: ORL specialists, Audiologists and medical officers in local hospitals.

**Methods :** The study was carried out by mailing self-administered questionnaires to ORL Department in each state hospital in Malaysia.

**Main outcome measures :** Routine assessments, managements and outcome measures did by ORL specialists (ORLs), Audiologists and medical officers (MOs) for patients with complaint of tinnitus, guidelines or procedures used as a references and opinion about current practice in managing patients with tinnitus in local hospitals.

**Results :** 110 of responses (51.8% response rate) were received from 15 hospitals. Background history taking, otoscopic examination and audiologic evaluation were the most common assessment performed by each respondent. For Audiologist, Pure Tone Audiometry (PTA) and tympanometry were the most reported audiologic evaluation they did to patients with tinnitus. 76% of ORLs and 63% of MOs have managed patients with complaint of tinnitus by themselves, whereby most of them offered pharmacotherapy as their treatment. For audiologists, they preferred to treat patients with tinnitus hearing aid. For outcome measurement, half of all respondents preferred to do interview only and 31% did audiologic evaluation. Only 12% of all respondents used questionnaires and 12% of respondents referred to guidelines to manage patients with tinnitus. Only 20% of all respondents were satisfied with the current practice in managing patients with tinnitus.

**Conclusion :** Each professional has done their role to assess patients with complaint of tinnitus but it is not enough to highlight the effect of tinnitus faced by majority of tinnitus sufferer. Multidisciplinary approach is the best way to ensure the effectiveness of tinnitus management. Additionally, intensive and exclusive training for professionals in managing tinnitus is crucial to improve patients care.



## ABSTRAK PEMBENTANGAN LISAN

### ABSTRACT OF ORAL PRESENTATION

#### THE EFFECTIVENESS OF PSYCHO-AUDIOLOGICAL MODULE (PAM) IN TREATING TINNITUS: PRELIMINARY FINDINGS

*Wan Husain WS1, Nik Othman NA2, Zakaria MN3, Othman A4,*

1Msc Candidate, Audiology Programme, School of Health Sciences, Universiti Sains Malaysia, Kelantan, Malaysia

2Lecturer, Audiology Programme, School of Health Sciences, Universiti Sains Malaysia, Kelantan, Malaysia

3Programme Chairman, Audiology Programme, School of Health Sciences, Universiti Sains Malaysia, Kelantan, Malaysia

4Lecturer, Paediatric Department, School of Medical Sciences, Universiti Sains Malaysia, Kelantan, Malaysia

**Objective :** To determine the effectiveness of psycho-audiological module (PAM) in treating tinnitus and tinnitus-related symptoms among selected participants.

**Methods:** 4 participants with main complaint of tinnitus underwent the validated PAM. Before undergoing the 2-month PAM intervention, pre-intervention assessments were performed including tinnitus audiometry, Borang Evaluasi Soal-selidik Tinitus (BEST) tool for measuring the tinnitus severity and the Malay version of Depression Anxiety Stress Score (DASS 21) for documenting symptoms of depression, anxiety and stress. The similar assessments were conducted after the intervention.

**Main outcome measures:** Tinnitus severity, severity of symptoms of depression, anxiety and stress, tinnitus pitch and loudness, and minimum masking level.

**Results:** In general, the outcomes were encouraging. For BEST score, improvements ranging from 61% to 85% were observed. Greater outcomes were noted for DASS 21 scores whereby the improvements can be as high as 100%, particularly for anxiety domain. On the other hand, the tinnitus audiometry results were inconsistent.

**Conclusion:** Psycho-audiological module was effective to reduce both tinnitus severity and tinnitus-related distress among participants, at least in this study. Giving counselling is helpful to reduce the common emotional reaction of having tinnitus such as anxiety. Nevertheless, having more participants will further support the usefulness of PAM.