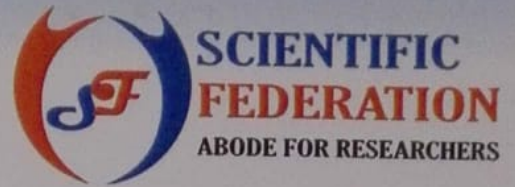


72nd Conference
Scientific Federation

Proceedings in
SciFed Nursing & Healthcare Journal



4th World Congress on Nursing & Healthcare

June 25-26, 2018 | Kuala Lumpur, Malaysia

For more information:

+91 779-979-0001 / +91 779-979-0002

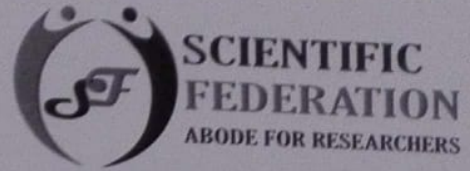
E: wcnh-2018@scientificfederation.com

<https://www.scientificfederation.com>

4th World Congress on

Nursing & Healthcare

June 25-26, 2018 at Kuala Lumpur, Malaysia



Medication adherence and its associations with socio-demographic factors and clinical profiles among type 2 diabetes mellitus patients

Nor Fadhilah Abdullah, Lee Khuan and SitiNoorkhairinaSowtali
Universiti Putra Malaysia, Malaysia

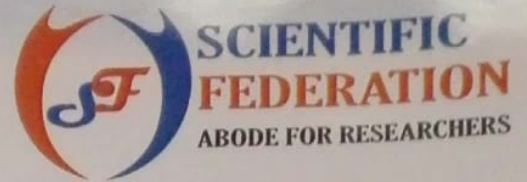
Diabetes mellitus is a chronic non-communicable disease and is increasing in trend due to modernization and unhealthy lifestyle. Antidiabetic medication is one of the pharmacological approach being prescribed to the diabetes patients for optimizing the blood glucose level. However, non-adherence towards medication was identified as one of the barrier to the effectiveness of diabetes management. The aim of this study is to determine the adherence rate among type 2 diabetes patients towards their anti-diabetic medications and its association with socio-demographic and clinical profiles. A cross sectional descriptive study was conducted on 427 randomly selected diabetes patients who had attended two public hospitals implementing Total Hospital Information System (THIS) in Malaysia. Data collection was performed using validated Medication Compliance Questionnaire (MCQ). Data obtained were analyzed using SPSS software version 22. A multivariable logistic regression analysis was used to examine the association between patients' profile and medication adherence. The confidence interval was set at 95% CI with p value of 0.05. Overall, a response rate for this study was 93.4%. The adherence rate of the diabetes patients was 53.4% with the Indian and Chinese ethnics were more likely to adhere towards their medication prescription with $p=0.017$ and $p=0.046$ respectively. There was also a significant association between HbA1c level with patients' medication adherence ($p=0.001$). As a conclusion, the contributing factors other than socio-demographic and clinical profile were suggested to be explored subjectively from patients' point of view to facilitate a formulation of patient-centred strategies on adherence to antidiabetic medication.

Biography

Nor Fadhilah is now pursuing her doctoral study in Nursing at University Putra Malaysia. Nor Fadhilah has completed her Master degree in University Sains Malaysia in year 2014. She is an academic trainee of University Sultan ZainalAbidin, Terengganu. She has published 2 papers. Currently, she has submitted one article to be published in an international journal.

72nd Conference
Scientific Federation

Proceedings in
SciFed Nursing & Healthcare Journal



Final Scientific Program

4th World Congress on

Nursing & Healthcare

June 25-26, 2018 at Kuala Lumpur, Malaysia



Scientific Federation

1-8-506/2/B, Begumpet, Hyderabad-500016, India

T: +91-40-6668 7799 | E: contact@scientificfederation.com

<http://scientificfederation.com>

Day 2 June 26, 2018

Function Room 9

Plenary Forum

10:00-10:50 Title: **Detour on the road to Eradicating Tuberculosis: The Malaysian Perspective**
Hj. Ahmad Nazzan bin Abdullah, Independent Researcher, Malaysia ✓

Keynote Forum

10:50-11:30 Title: **Addressing Public Health Nurse Roles as an Integral of Community Health Intervention for Global Healthcare**
Rosnah Sutan, University Kebangsaan Malaysia, Malaysia ✓

Networking & Refreshments Break 11:30-11:45 @ Foyer

11:45-12:25 Title: **Role of nurses in critical care medicine**
Mahabubul Islam Majumder, Comilla Medical College, Bangladesh ✓
12:25-13:25 **Workshop on How to improve outcomes of people with bipolar disorder by teaching self management techniques**
Kirsten Bond, University of Manchester, UK ✓

Lunch Break 13:15-14:00 @ Temptations Restaurant

Sessions: **Critical Care Nursing & Emergency Nursing | Clinical Nursing**

Session Chair: **Zainul Rashid Mohamad Razi**, University Kebangsaan Malaysia, Malaysia

Session Co-Chair: **Loie Couch**, Barnes-Jewish Hospital, USA

14:25-14:50 Title: **Protecting a Vulnerable Patient Population - Renovation of a Bone Marrow Transplant Unit**
Loie Couch, Barnes-Jewish Hospital, USA ✓

14:50-15:15 Title: **Education and training for disaster health response including NBC disaster**
Soon Joo Wang, Hallym University, South Korea ✓

15:15-15:40 Title: **Approach to the Undifferentiated Patient: Triage Vs Early Warning Signs**
Imen Debbiche, Universal Hospital, United Arab Emirates ✓

15:40-16:05 Title: **Focus Extracoreal shockwave therapy improves immediate and short-term functional outcomes of shoulder adhesive capsulitis**
Wei-Tso Chia, National Taiwan University Hospital, Taiwan ✓

Networking & Refreshments Break 16:05-16:20 @ Foyer

Sessions: **Community Health Nursing | Cross-cultural Nursing and Models of Care | Clinical Nursing**

Session Chair: **Robelita N. Varona**, University of The Philippines Manila, Philippines

Session Co-Chair: **Masoud Mohammadnezhad**, Fiji National University, Fiji Islands

16:20-16:45 Title: **Disaster Preparedness Of The Public Health Team in Rural Health Unit Facilities**
Robelita N. Varona, University of The Philippines Manila, Philippines ✓

16:45-17:10 Title: **POCT: Bench to Bed: Where are we now?**
Saint Nway Aye, International Medical University, Malaysia

✓ 17:10-17:35 Title: **Factors associated with Glycemic control among type 2 diabetes mellitus (T2DM) patients attending clinics at Suva health centers, Fiji in 2011 - 2016: A mixed method study**
Masoud Mohammadnezhad, Fiji National University, Fiji Islands ✓

17:35-18:00 Title: **Neural correlates of care setting in a sample of Chinese children double orphaned by AIDS**
Michael E. Behen, CHM Translational Imaging Center, USA

18:00-18:20 Title: **Faith-Based Leaders Caring For Older Adults In A Natural Disaster: A Study Of Hurricane Sandy**
Mercy Joseph, New York Institute of Technology, USA

18:20-18:40 Title: **Uncompensated Care and the Financial Impact in the Emergency Department**
Pamela Treister, New York Institute of Technology, USA

Poster Presentations

WCNH-001 Title: **Medication adherence and its associations with socio-demographic factors and clinical profiles among type 2 diabetes mellitus patients.**
Nor Fadhilah Abdullah, Universiti Putra Malaysia, Malaysia

WCNH-002 Title: **Practices of Breast-Self Examination among Female Teacher's**
Fatimah Aref, Universiti Putra Malaysia, Malaysia

WCNH-003 Title: **Depression and Its Associated Factors in Patients with Parkinson's Disease**
Yi-Tung Lin, E-DA hospital, Taiwan

WCNH-004 Title: **Sweet Mystery Case Report of a Rare Presentation of Myelodysplastic Syndrome as the Sweet's Syndrome**
Abeer Arain, University of Illinois Urbana-Champaign, United States

WCNH-005 Title: **Team Working of Doctors and Nurses on General Medical Ward Rounds in a District General Hospital in Engalnd**
Gordon Caldwell, Worthing Hospital, UK

Certificate Felicitation @ Closing Ceremony

Day 1 June 25, 2018

Function Room 9

- 08:30-09:30 Registrations
09:30-09:35 Introduction
09:35-10:00 Opening Ceremony

Plenary Forum

- 10:00-10:50 **Title: The Role of Nursing in Reproductive Medicine**
Zainul Rashid Mohamad Razi, University Kebangsaan Malaysia, Malaysia

Keynote Forum

- 10:50-11:30 **Title: The Development of Critical Thinking Skill in New Graduate Nurses and Patient Outcomes**
Lorrie Fischer-Blicht, Magellan Christian Academy Phoenix, USA

Networking & Refreshments Break 11:30-11:45 @ Foyer

- 11:45-12:25 **Title: Addressing current challenges with trustworthy evidence: Interventions for preventing elder abuse**
Philip Baker, Queensland University of Technology, Australia

Sessions: Nursing Management | Nursing Education and International Trends | Psychiatric and Mental Health Nursing

Session Chair: P.Thamil Selvam, The National Defence University of Malaysia (UPNM), Malaysia

Session Co-Chair: Essam Hamed Amin Ali, Universal Hospital, United Arab Emirates

- 12:25-12:50 **Title: Relationship between the Harmonization of Work and Living of Nursing Staff Working for Medium-Sized Hospitals and Self-Education Ability**
Fumie Nakamura, Ashikaga Institute of Technology, Japan
- 12:50-13:15 **Title: Vagus Nerve Stimulation: Innovative approaches to treatment resistant depression and bipolar disorder**
Kirsten Bond, University of Manchester, UK

Group Photo

Lunch Break 13:15-14:15 @ Temptations Restaurant

- 14:15-14:40 **Title: Quick Tour of Healthcare Accreditation, certification and Licensure versus System implementation**
Marwa ElSaidy, Healthcare Quality Consultant, Egypt
- 14:40-15:05 **Title: Quality Management in healthcare sector**
Essam Hamed Amin Ali, Universal Hospital, United Arab Emirates
- 15:05-15:30 **Title: Self-Directed Learning and Lifelong learning**
Khin Saw Yu, International Medical University, Malaysia
- 15:30-15:55 **Title: Nursing care for patients with a stoma**
P. Thamil Selvam, The National Defence University of Malaysia (UPNM), Malaysia

Networking & Refreshments Break 15:55-16:10 @ Foyer

Sessions: Community Health Nursing | Cardiac Nursing | International Nursing and Global Health

Cancer & Oncology Nursing

Session Chair: Lorrie Fischer-Blicht, Magellan Christian Academy Phoenix, USA

Session Co-Chair: Masoud Mohammadnezhad, Fiji National University, Fiji Islands

- 16:10-16:35 **Title: Introduction to Complementary and Alternative Medicine(CAM)**
Maryse Pedoussaut, FIU Hebert Wertheim college of medicine, USA
- 16:35-17:00 **Title: Knowledge, Attitude and Practice towards Cardiovascular Disease among adults attending Accident & Emergency Unit of Colonial War Memorial Hospital, Suva, Fiji Islands**
Masoud Mohammadnezhad, Fiji National University, Fiji Islands
- 17:00-17:25 **Title: Knowledge, Attitudes and Practice of Patient safety among nurses and physicians in emergency department of public hospitals, in Sana'a Capital City, Yemen 2017**
Khalid Al-Dar, Yemen Field Epidemiology Training Program (Y- FETP), Yemen
- 17:25-17:50 **Title: Effects of Honey on Inflammatory Markers, Bone Markers and Oestradiol Levels in Breast Cancer Patients**
Mahaneem Mohamed, Universiti Sains Malaysia, Malaysia

Panel Discussion

19:00-20:00 Cocktails @ Pool Side

Medication adherence and its relations with type 2 diabetes patients' socio-demographic factors and clinical profiles.

Nor Fadhilah Abdullah^{1,2}, Lee Khuan¹, Cheong Ai Theng³ and Siti Noorkhairina Sowtali⁴

¹ Department of Nursing and Rehabilitation, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor.

² Department of Nursing, Faculty of Medicine, Universiti Sultan Zainal Abidin (UniSZA), Gong Badak, Terengganu.

³ Department of Family Medicine, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor.

⁴ Kulliyah of Nursing, International Islamic University Malaysia, Kuantan Campus, Pahang.



4th World Congress on Nursing and Health Sciences (WCNHS) 2018, Renaissance Hotel, Kuala Lumpur, Malaysia on 25th - 26th June 2018

INTRODUCTION

- Diabetes Mellitus is a chronic non-communicable disease that increased in trending worldwide due to modernization and unhealthy lifestyle.
- Anti-diabetic medication is one of the treatment that offered to the diabetes patients to optimize blood glucose level (Chaudhury & Mirza, 2017).
- However, **medication non-adherence** has been identified as **one of the main failure reason for diabetes management** (World Health Organization, 2003).

OBJECTIVE

- To determine the adherence rate of anti-diabetic medications
- To determine the associated factors of medication adherence with socio-demographic and clinical profiles among type 2 diabetes patients.

METHOD

Study design

- ↕ Cross sectional study

Sample design

- ↕ Systematic random sampling.
- ↕ Every 5th patients in the name list were selected.

Data collection

- ↕ July 2017- November 2017

Data analysis

- ↕ Statistical Software of Social Sciences (SPSS) 22.
- ↕ Descriptive and multivariate logistic regression analysis were done.
- ↕ The confidence interval was set at 95% CI with *p* value of 0.05.

Ethical approval

- ↕ The study was approved by the Human Research Ethics Committee of Universiti Putra Malaysia and the Medical Research and Ethical Committee (MREC), Ministry of Health Malaysia (NMRR-16-475-28884)

Population & setting

- ↕ T2DM patients
- ↕ Two selected Hospital that using Total Hospital Information System (THIS)

Sample size

- ↕ 427 T2DM patients

Instrumentation

- ↕ Validated Medication Compliance Questionnaire (MCQ)
- ↕ Part A: Socio-demographic data & clinical profiles
- ↕ Part B: 7 questions of MCQ
- ↕ 4 Likerts' scale (none of the time, sometimes, most of the time, all the time).
- ↕ Total score: Above than 27 (adherence) (Ahmad et al., 2013).

RESULTS

- ↕ A response rate for this study was 93.4%.

Descriptive data of socio-demographic profiles

Malay (59.1%)	Female (57.9%)	Married (82%)
Aged 41 to 64 years old (56.4%)	Had attended secondary school (49.6%)	Employed @ pensioner (59.9%)
Income < RM3000 (65.7%)		

Descriptive data of clinical profiles

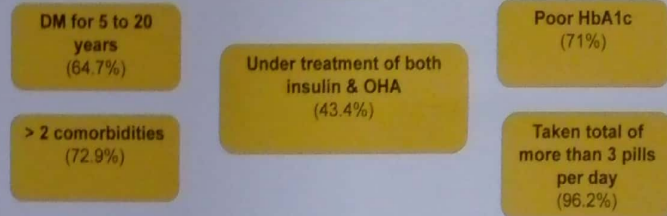


Figure 1: Medication adherence rate (n=399)

Table 1: Associated factors of medication adherence (n=399)

Variable	Multiple Logistic Regression		
	b	Adjusted Crude OR (95% CI)	<i>p</i>
Race			
Malay	0	1	
Chinese	-0.61	0.54 (0.30,1.00)	0.046
Indian & others	-0.64	0.53 (0.31,0.89)	0.017
HbA1c reading			
Poor (HbA1c>7%)	0	1	
Good (HbA1c≤7%)	-0.98	0.38 (0.23,0.61)	0.000

p<0.05

Adjusted for age, gender, marital status, education level, number of comorbidities, comorbidity with renal, insulin used, Metformin used, Dipeptidyl Peptidase Inhibitor -4 (DPP-4) used, Glucagon-like peptide-1 (GLP-1) used and drug utilization.

Enter Multiple Logistic Regression model was applied

Multicollinearity and interaction term were checked and not found

Hosmer-Lemeshow test, (*p*=0.990), classification table (overall correctly classified percentage=63.7%) and area under the ROC curve (32.4%) were applied to check the model fit (Wan Ahmad, Mohamed, Aleng, & Ali, 2012)

CONCLUSION

- ↕ Racial differences in medication adherence might suggest the element culture variances in daily practice and lifestyle shall be further explored.
- ↕ The contributing factors other than socio-demographic and clinical profile were suggested to be explored from patients' point of view.
- ↕ A formulation of patient-centred strategies on medication adherence may improve the patients' adherence on anti-diabetes medication.

REFERENCES

- ↕ Chaudhury A, & Mirza W (2017) Clinical Review of Antidiabetic Drugs - Implications for Type 2 Diabetes Mellitus Management. *Frontiers in Endocrinology*, 8(6). <https://doi.org/10.3389/fendo.2017.00006>
- ↕ World Health Organization. (2003). Adherence to long-term therapies: Evidence for action.
- ↕ Ahmad N S, Ramli A, Isaharudin F, & Paraidathathu T. (2013). Medication adherence in patients with type 2 diabetes mellitus treated at primary health clinics in Malaysia. *Patient Preference and Adherence*, 7, 529-530
- ↕ Wan Ahmad, W M A, Mohamed, N, Aleng, N A, & Ali, Z (2012). Influence of Hypertension and Diabetes Mellitus on Family History of Heart Attack in Male Patients. *Applied Mathematical Sciences*, 6(66), 3259-3266.

ACKNOWLEDGEMENTS

- ↕ The study was funded by UPM FRGS grant number 5524771.