



Proceeding Book

THE 1st INTERNATIONAL NURSING CONFERENCE

“Complementary Nursing Issues
and Updates in 2015”

STIKES Hang Tuah Surabaya

Surabaya-Indonesia, June 6, 2015



Preceeding book

The 1st International nursing Conference

Complementary Nursing Issue and Updates in 2015

STIKES Hang Tuah Surabaya

June, 6th 2015

Editor :

Prof. Yayoi Iwasaki, RN., PhD

Prof. Dr. Rika Soebarniati, dr., S.KM., M.PH

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

Dr. Bambang Widjanarko Otok, M.Si

Dr. Ah. Yusuf, S.Kp., M.Kes

Published by:



STIKES Hang Tuah Surabaya

Preceeding Book the 1st International Nursing Conference

Complementary Nursing Issue and Updates in 2015

Editor:

Prof. Yayoi Iwasaki, RN., PhD
Prof. Dr. Rika Soebarniati, dr., S.KM., M.PH
Prof. Dr. Nursalam, M.Nurs (Hons)
Dr. Bambang Widjanarko Otok, M.Si
Dr. Ah. Yusuf, S.Kp., M.Kes

Cover Designer:

Ach Arfan Adinata, S.Kep., Ns

Setting / Lay Out:

Ach Arfan Adinata, S.Kep., Ns

Copyright and the Editor:

Printed and Published by:

STIKES Hang Tuah Surabaya Press

Jl. Gadung No.1 Surabaya 60244

Telp/Faks: (031) 8411721

Website: www.stikeshangtuah-sby.ac.id

Cetakan: I, Surabaya, 2015

ISBN : 978-602-72856-0-6

COMMITTEE

Advisor

Wiwiek Liestyningrum, M.Kep
The Head of STIKES Hang Tuah Surabaya

Ns. Setiadi, M.Kep
The First Head Assistant of STIKES Hang Tuah Surabaya

Ns. Dwi Supriyanti, S.Pd., S.Kep., M.M
The Second Head Assistant of STIKES Hang Tuah Surabaya

Committee President

Ns. Puji Hastuti, M.Kep

Committee Voice President

Meiana Harfika, SKM., M.Kes

Secretary

Taufan Agung P, S.Sos

Treasurer

Nenny Andriani, SE
Ns. Dya Sustrami, S.Kep., M.Kes

Scientific Committe

Ns. Diah Arini, S.Kep., M.Kes
Ns. Nuh Huda, M.Kep., Sp. Kep.MB
Ns. Dwi Priyantini, S.Kep
Ns. Hidayatus Sya'diyah, M.Kep
Ns. Dini Mei Widayanti, M.Kep
Ns. Christina Yuliasuti, M.Kep
Ns. Qori'ila Saidah, M.Kep., Sp.
Kep.An
Ns. Merina Widiastuti, M.Kep
Lela Nurlala, S.Kp., M.Kes

Ceremonial Committe

Ns. Dhian Satya R., M.Kep
Ns. Dwi Ernawati, M.Kep
Sapto Dwi Anggoro, S.Pd
Ns. Antonius Catur S., M.Kep

Secretariat

Ns. Nur Muji Astuti, S.Kep

Ns. Rifka Pahlevi, S.Kep
Ns. Dedi Irawandi, S.Kep
Wasis Agung Ahmadi
Theresia Atik Nurharjanti
I Wayan Kama Utama

GREETING FROM COMMITTEE PRESIDENT

On behalf of the committee it is very special honour to be your host in the first International nursing conference, which provides especially to students with an opportunity to share their ideas through their selected paper on the theme “Complementary Nursing Issues and Updates in 2015”

The Conference brings together academicians, practitioners, researchers as much as 200 participants from different provinces in Indonesia and different countries such as Malaysia, Japan and Republic of Tiongkok. So by gathering and interacting each of attendees here, I do believe that the fruit of this conference will contribute surely to nursing.

Finally, I congratulate those whose selected papers are included in the International proceeding, and I also would like to thank to the attendance keynote speaker, expertise, the committee and to all the participants.

Ns. Puji Hastuti, M.Kep
Committee President

CONGRATULATORY MESSAGE

It is a great honor for me to extend this opportunity to welcome all of you to International Nursing Conference 2015. This conference is organized by STIKES Hang Tuah Surabaya with a theme “*Complementary nursing Issues and Updates in 2015*”. This is the first time for STIKES Hang Tuah Surabaya to hold an International nursing Conference, and I do believe we may have other conferences that contribute to the development of nursing sciences.

This conference is timely and relevant in light of challenges we are facing in the next years ahead. It is to be noted that the ASEAN Economic Community will be due on the December 31st, 2015, allowing seven professions including nursing practitioners to work and practice across ASEAN countries, although further preparations under Mutual Recognition Arrangements (MRA) are still required.

On behalf of the institution STIKES Hang Tuah Surabaya, I would like to express my highest appreciation to the committee, who organized this International Nursing Conference 2015. It is my pleasure to warmly welcome all of you to this event, and also cordially welcome all overseas speakers to share their knowledge and experiences to all participants.

Eventually, I am confident that with the preparation and cooperation of all participants, the presence of distinguished guest speakers, the first international Nursing conference 2015 will be of great success.

Please enjoy your stay in Surabaya and wish you a wonderful time and valuable experiences from this event. Once again, It is our sincere thanks to all of you for taking time to join us.

Thank you.

Wiwiek Liestyaningrum, M.Kep
The Head of STIKES Hang Tuah Surabaya

TABLE OF CONTENTS

No	Title	Page
	Speaker Topic	
1	Recovery-Oriented Nursing for People With Mental illness	1
2	Policy and Implementation of Complementary Nursing (Indonesian Nurse's Perspective)	14
3	The Prospective of Complementary Nursing in Malaysia	22
4	Chinesse Medicine	23
	Participant Topic	
5	Autogenic relaxation self efficacy in patients with Cervical Cancer	25
6	Effectiveness of government strategy in efforts to accelerate the of maternal and infant mortality rates	32
7	The effects of benson meditation to reduce anxiety level of premenstrual syndrome in felame adolescence	42
8	The effectivennes of cross cradle hold breasfeeding position against episiotomy pain of post-partum mothers	48
9	The competency of midwives in early detection and treatment of high risk of pregnant women to reduce maternal mortality	58
10	The relationship between intelligence quotient (IQ) with social personal development pre-school children	68
11	The effect 4s's technique to physiological and behavioral responses on newborn	75
12	RFPP method for recovery of the nutritional status of children with malnutrition and poor nutritional status: a literature review	83
13	The relationship of parenting styles and the achievement of developmental tasks of toddler	93
14	Effect of early mobization pain, blood pressure and pulse client after operation sectio caesaria	103
15	Efficacy and safety of homeopathic medicines as a complementary and alternative medicine: a literature review	111
16	Islamic nursing process in fulfilling immobilized patient' spritual need (prayer)	119
17	The efficacy of red betel leaves boiled water on blood glucose levels in healthy people	128
18	Transcutaneous electrical nerve stimulation as complementary therapy on pain management acute colic renal	137
19	The effect of foot massage on ABI'S patients with Type 2 Diabetes Mellitus	143
20	The effect of consumption lamtoro (<i>leucaena leucocephala</i>) to decrease blood glucose levels of Diabetes Mellitus patient	150
21	The effect therapyof listening al-qur'an; surah ar-rahman and deep breathing exercise (DBE) on pain in patient abdominal surgery.	159
22	Achivement of suctioning competence though peer learning	166

23	The levels of blood glucose and blood cholesterol before and after aerobic exercise in patients with diabetes mellitus	181
24	Improving visual health (myopia) with “vision therapy”	193
25	The effectiveness of guided imagery relaxation to meet the needs of sleep in patient with post laparomy	198
26	The techniques of deep breathing relaxation and auditory distraction to reduce level of pain	204
27	The effect diaphragma breathing exercise for decreasing of asphyxiate to patient with COPD	212
28	The effects of counseling in improving perception among risk of HIV/AIDS	221
29	Effectiveness of application of health education formed audio AIDS in community health center (PUSKESMAS)	229
30	The effect of brain gym on the ability to remember the lesson of social science	239
31	The difference of insomnia in the elderly before and after keroncong music therapy	253
32	The effect of given aromatherapy rose to decrease stress levels on early adolescent (12-15 years old)	263
33	Improving the empowerment of mother larvae observer through education and training approach based on health promotion model	273
34	Effect of warm water foot soak’s to decrease Hypertention on elderly	281
35	Effect of mixed water lime and soy sauce in the healing cough of toddler	288
36	The relationship caring nurse with patient satisfaction PHC Hospital in Surabaya	297
37	Bipolar disorder in young adults: culture as etiology and basic intervention (a literature review)	304
38	The effectiveness of brain gym exercise to improve learning concentration of students	309
39	The relationship between the incidence of acute respiratory tract infection (arti) and nutritional status among toddler in krembangan surabaya	313
40	Design of interactive multimedia based learning media at adult about cardiopulmonary resuscitation of one by stander	318
41	The correlation between clinical guidance competence with clinical skill attainment of candidate nursing students	328
42	The effectivity of deep breathing toward pain during radial artery catheterization among coronary heart disease (CHD) patients in “hk” hospital jakarta	336
43	Making learning video pediatric basic life support by camtasia studio base on powerpoint	342
44	Walking and watching movies to decrease the rate of depression in elderly	347
45	The rapeutic touch as a complementary therapy for healing nursing	354

46	The influence of consume nanaku rice with blood sugar level among patients with diabetes mellitus	361
47	the influence of avocado leaves to decrease blood pressure in elderly with hypertension	371
48	The effect of feeding rules programme toward body weight changing among children in playgroups ponorogo	379
49	The effectivity of bubble continuous positive airway pressure (CPAP) among neonates with severe respiratory distress syndrome (RDS) in dr.ramelan navy hospital surabaya	383
50	The relationship between obstetric conditions and the incidence of preterm labor in dr.ramelan navyhospital surabaya	394
51	Counseling improving self-esteem and acceptance on the client with type 2 diabetes mellitus	408
52	The efficacy of blood glucose control for reduce ulcer foot degrees among patients with diabetes mellitus	419
53	Instrument program of mental health disorder early detection for health cadres and society in pekalongan regency	428
54	Family social support on patient with hypertension	438
55	The predictive factors influence of breast feeding self-efficacy among breast feeding mothers	446
56	The relationship between gestational age and asphyxia among newborn baby	453
57	Analysis of the factors hyperglycemia to patients of diabetes mellitus already taking oral hypoglycemia drugs (OHD)	461
58	Relations of activities mother, vaccine availability and the activity officer with polio immunization completeness four in children of working area Health Centers Mekar Kendari City	474
59	Risk factors of cardiovascular disease	484
60	Stress management relationship with a teenager learning motivation XI IPS the SMA Antartika Sidoarjo	492
61	The effect of recite qur'an on quality of sleep among elderly in elderly health center (posyandu lansia) matahari senja	498
62	Effect of interpersonal communication, supervision and trust on performance instructor clinic hospital nursing students region province lampung	506
63	The effects of career development system, justice, and responsibility for quality of lecturer's service in health polytechnic tanjungkarang lampung 2013.	517

ANALYSIS OF THE FACTORS HYPERGLYCEMIA AMONG PATIENTS WITH DIABETES MELLITUS WHOSE TAKING ORAL HYPOGLYCEMIA DRUGS (OHD)

Purbianto¹, Dwi Agustanti²

Department Of Nursing

Health Polytechnic Tanjungkarang

Bandar Lampung, Lampung Indonesia

Telephone number: 08127909573, Email address : prb_ners@yahoo.com

ABSTRACT

Hyperglycemia in Diabetes Mellitus (DM) patients can be caused by fear, anger, anxiety, fever, flu, infections and other illnesses that causes of stress. Hyperglycemia in DM patients that already taking the medicine can be caused by irregularity of regular diet, irregularity in exercises, irregularity taking medicine, and irregularity checking level of blood glucose. Incidence of hyperglycemia is 33% especially at people age over 60 years old. The goals of this research were to analyze the factors related with hyperglycemia among Diabetes mellitus (DM) patients that taking oral hypoglycemia Drugs (OHD). Design research was *cross sectional*. The population of the research was the members of DM club in Adventist Hospital in Bandar Lampung. Sample were the members of the Club who taking OHD, total 40 respondent, the methods sampling was *purposive sampling*. The time of research was September, 21th – October, 5th 2014. The research results described that the factors related to hyperglycemia among patients whose taking OHD are age ($\alpha=0.002$), anxiety ($\alpha=0.006$), obedient to diet ($\alpha=0.02$), regularity of exercise ($\alpha=0,014$), regularity of taking medicines ($\alpha=0.007$), and knowledge of treatment ($\alpha=0.001$). The relationship between hyperglycemia among DM patients that taking OHD with age, anxiety, regularity of exercise, regularity of taking medicines, obedient of diet and the knowledge of treatment should be contribute to manager of DM club for the prevalence of the occurrence of hyperglycemia among patient with oral hypoglycemia Drugs (OHD).

Keywords :Hyperglycemia, DM with OHD

Introduction

The pandemic of Diabetes mellitus (DM), especially DM type 2 (DMT2) has now become a serious threat to the human race in the world. In 2003, the WHO estimates that 194 million or 5.1% from 3.8 billion world population aged 20 to 79 years old suffer from DM and in 2025 increase to 333 million. The same year *the International Diabetes*

Federation (IDF) mentions that the prevalence of DM was 1.9% in the world and cause 7th of the death. Projection DM prevalence from 1994 to 2010 was estimated 215,6 million, however evaluation in 2007 of the number of diabetics has reached 246 million, even in 2025, people fear that number would increase to more than 300 million people.

Basic Health Research (BHR) reported by the Department of Health in 2007, showed the average prevalence of DM in Indonesia was 5.7%, while in the province of Lampung amounted to 6.2%. The number was above the national average, meaning that many people with DM in Lampung Province. According to the WHO state, diabetes patients in Indonesia will increase from 8.4 million in 2000 and to 21.3 million people by 2030. This makes the numbers in Indonesia was ranked 4th in the world after China, India and the United States (Soegondo, dkk, 2011).

DM patients potentially suffering from various complications, including microvascular disease and macrovascular disease. The complications of DM start early, before we realize the diagnosis of DM. About 50% of patients when diagnosed, already have chronic complications like 21% of retinopathy, 18% abnormally of ECG and 14% with impaired blood flow to the legs, making the pulse not palpable or making ischemic at leg. DM complications will decrease expectancy of the life around 15 years, and 75% died of complications due to macrovascular. In addition to the issue of complications, other problems faced by diabetes patients are high costs of treatment and maintenance good health. Hartini reported, the cost of care for DM patients. In developed country like United States in 2011, the total health budget spent \$ 174 billion or around IDR. 1.641 trillion to 25.8 million residents afflicted by diabetes. WHO estimates most countries in worldwide spend 2.5-15 percent of health budgets for the

diabetic people. In Indonesia, it hasn't study that calculates the total spending costs for treatment diabetic. But for instance, the diabetes patients who have haemodialysis 3 times in a week, if in every hemodialysis, they must pay Rp. 800.000, so they can spend money totally Rp. 115.200.000 for one years. This cost does not include the cost of complications, indirect costs such as travel expenses, loss of working hours, due to a disability and other expenses incurred by the family. Research Of *ROSSO (Retrospective Study Self Monitoring of Blood Glucose and learning outcomes in People with type 2 Diabetes)* in Germany 2006 by Weber, known diabetes expenses by patients, more and more year increase adjustment to the increasing of complications. The first year after the diabetic patient diagnosed, they spend costs IDR 18,3 million in a year, up to IDR 49,1 million in the eighth. (<http://health.detik.com>).

The effort to avoid complications and expensive we need integrated treatment or management of diabetes that called the pillars of management of diabetes. The four pillars of diabetes mellitus treatment are 1) diet, 2) physical exercise, 3) pharmacology or drug use and 4) education. The goals of management diabetes mellitus are to support patients live in minimal risks of complications or without risks with specific targets on goal like blood glucose, fat and weight.

Management of DM without decompensation starts with diet, good exercises in 4-8 weeks. If in this period, blood glucose levels higher than normal, we give Oral Hypoglycemic Medication given new (OHD). Recorded only 5% of

patients reached normoglycemia with diet and exercises, 95% did not give satisfactory results so it can be started with using OHD. In people with severe hyperglycemia, OHD should be initiated early.

Hyperglycemia is determined by 3 factors include of pancreatic beta cells that are secreting insulin, *Hepatic glucose output* (produced liver glucose) by liver and sensitivity of peripheral tissues (muscles, intestines and liver) to insulin. Oral hypoglycemic medications have points to work on to one or more of the three factors above.

Definition of hyperglycemia based on the criterias of diabetes mellitus are issued by *International Society for Pediatrics and Adolescent Diabetes* (ISPAD) is the levels of glucose blood when 11.1 mmol/L (200 mg/dL) with diabetes symptoms or levels of glucose blood fasting (no caloric input getting at least 8 hours in advance) 7.0 mmol/L (126 mg/dL). Another definition of hyperglycemia, according to *the World Health Organization* (WHO) is the levels of glucose blood 126 mg/dL (7.0 mmol/L), where the levels of glucose in blood between 100 and 126 mg/dL (6.1 to 7.0 mmol/L) is said the condition of abnormal glucose tolerance (Soegondo. dkk, 2011).

Hyperglycemia in DM patients can be caused by fear, anger, anxiety, fever, flu, infections and other illnesses the causes of stress and increasing blood glucose. .
Hyperglycemia in DM patients with already taking the drug due to 1) in consuming, 2) irregularity in exercises, 3) irregularity in the use of drug, 4) irregularity in checking

the levels of glucose in the blood (Soegondo, n.d).

The incidence of Hyperglycemia, 33% is a mix between Diabetic Ketoacidosis (KAD) and the Status of Hiperosmolar Hiperglycemic (SHH) and one third 1/3 of them that mix between KAD and SHH, are over 60 years old.

Pra Surveyin Dr. Abdul Moeloek Hospitals, since January-August 2013, recorded 96 patients suffering diabetes mellitus who currently using OHD and estimated there are still approximately 38% - 40% of patients that the level of glucose blood above 200 mg/dL. Based on this phenomena, researchers interested study the determinan factors related to hyperglycemia in patients who are already using DM OHD.

Literature Review

Hyperglycemia according to *International Society for Pediatrics and Adolescent Diabetes* (ISPAD) is 11.1 mmol of the level of glucose blood (200 mg/dL), with the symptoms of diabetes while fasting (no caloric input getting at least 8 hours in advance) 7.0 mmol/L (126 mg/dL). Another definition of hyperglycemia, according to *the World Health Organization* (WHO) is the level of glucose blood 126 mg/dL (7.0 mmol/L), and the level of glucose blood between 100 - 126 mg/dL (6.1 to 7.0 mmol/L) is a condition of abnormal glucose tolerance.

Hyperglycemia in DM patients can be caused by fear, anger, anxiety, fever, flu, infections and other illnesses the causes of stress and increasing blood glucose. .
Hyperglycemia in DM patients with

already taking the drug due to 1) in consuming, 2) irregularity in exercises, 3) irregularity in the use of drug, 4) irregularity in checking the levels of glucose in the blood (Soegondo, n.d).

The incidence of Hyperglycemia, 33% is a mix between Diabetic Ketoacidosis (KAD) and the Status of Hiperosmolar Hiperglycemic (SHH) and one third of them that mix between KAD and SHH, are over 60 years old.

DM patients Hyperglycemia can be caused by fear, anger, anxiety, fever, flu, infections and other illnesses the causes of stress. Hiperglykemia on pasien DM is already taking the drug due to 1) not had in regulating food, 2) irregular in the workout, 3) irregular in the use of the drug, 4) irregular in the examination of the levels of glucose in the blood (Soegondo. n.d). 33% of Hyperglycemia is a mix between Diabetic Ketoacidosis (KAD) and the Status of Hiperosmolar Hiperglykemik (SHH) and 1/3 of them who are over 60 years old.

Mihardja (2009) in his research concluded the age > 55 years have risks of hyperglycemia 6,7 times, the age 35-54 years old have risks 4.5 times compared to the age of 15 – 34 years old. Hiperglycemia more risk in age > 55 year old tahun, because more aging, insulin produce decrease in pancreas. This study, showed that we must protective the older people especially the age > 55 year old by complicated of Diabetes Mellitus.

Methodology

Design research was *cross sectional*, the population in this research were all Club members of DM Bandar Lampung Adventist

Hospitals, 120 people. The samples were the members of DM Club in Bandar Lampung Adventist Hospitals, that already using the OHD, totally 40 respondent. The samples were taken with *purposive sampling* methods with criteria 1) type II DM, 2) not accompanied by complications, 3) not currently suffer from other diseases, and 4) not being use another lowering glucose blood levels drug like herbals. Time of research on September 21th – October 5th 2014 every Sunday at DM Club of Bandar Lampung Adventist Hospitals.

The instruments used questionnaire for independent variable which developed by the researcher, food recall sheet for diet, and for variable of anxiety, we are adopt tools measure from HARS (*Hamilton Anxiety Rating Scale*). For dependent variable, we used results of glucose measurement sheet. Instruments for assessing knowledge of the respondents, developed by researchers. The total scoring on instrument is 10, we given score 1 for the correct answer and 0 for the wrong answers. The respondents stated having good knowledge when the respondents got the score > 7 and have less knowledge when the score < 7.

In this study, the univariate data will be analyzed by distribution frequency and bivariate data with *chi square*.

Results And Discussion

Univariate Analysis

This research was conducted on the DM Club of Bandar Lampung Adventist Hospital, every Sunday on the 21th, 28th of September and 5th of October 2014. Actually the member totally 120 people, but the active

people only ± 90 respondend and already using DM OHD only 40 people.

Results of research conducted on respondents obtained data include age, levels of anxiety, the regularity of exercises, obedient of diet, regularity of medication management and knowledge of the management DM. Univariate analysis in tables:

Table 1: Distribution frequency of Age

Category	n	%
60 years	30	75.0
< 60 years	10	25.0
Total	40	100.0

Table 1, the most respondents aged were above or equal 60 years old, 30 respondents, (75%)

Table 2: Distribution frequency of Level of anxiety

Category	n	%
Anxious	26	65.0
Not Anxious	14	35.0
Total	40	100.0

Table 2, majority of respondents experiencing anxiety as 26 (65%) of respondents.

Table 3: Distribution frequency of level of Compliance Diet Calories

Category	n	%
Excess	23	57.5
As needed	17	42.5
Total	40	100.0

Table 3 , the most respondents have habit consume excess calorie, as 23 (57,5%) of respondents

Table 4: Distribution frequency of Regularity of Exercises

Category	n	%
Irregular	21	52.5
Regular	19	47.5
Total	40	100.0

Table 4, the most respondents have habitirregular in exercises, as 21 (52.5%) of respondents.

Table 5: Distribution frequency of Repondents Using Regular OHD

Categori	n	%
Irregular	32	80.0
Regular	8	20.0
Total	40	100.0

Table 5 The most respondents have habit using OHD irregular, as 32 (80%) of the respondents.

Table 6: Distribution frequency of Level of knowledge DM management

Category	n	%
Less	30	75.0
Good	10	25.0
Total	40	100.0

Table 6 ,The most respondents have less knowledge of DM management, 30 (75%) of the respondents.

Table 7: Distribution frequency of level of glucose blood

Category	The amount of	%
Hyperglycemia	25	62.5
Normoglicemia	15	37.5
Total	40	100.0

Table 7 The most respondents have hyperglycemia, as 25% (62.5%) of the respondents.

Bivariat Analysis

The bivariat analysis used in this study was the analysis of *chi square*, to find out the relation of variable risk factors with the occurrence hyperglycemia in patients of diabetes mellitus that already using OHD.

a) The relationship between Age and Hyperglycemia among DM patient already taking OHD

Table 8: distribution of Respondents By age and Hyperglycemia

The age of	Hyperglycemia				Total		P Value	OR
	Yes		Not		n	%		
	n	%	n	%				
60 years	23	76.7	7	23.3	30	100	0.002	13,143 (2,249 – 76,807)
< 60 years	2	20	8	80	10	100		
The amount of	25	62.5	15	37.5	40	100		

Table 8 analysis results described, there were 23 (76,7%) of respondents that age 60 years experience hyperglycemia, and there were 2 (20%) of respondents aged < 60 years experience hyperglycemia. Results of statistical tests obtained p value = 0.002 was smaller than the value of = 0.05 (p value <), which means that there were differences in the proportion of

respondents aged between hyperglycemia incidence 60 years with respondents aged < 60 years (there was significant relationship between age and incidence of hyperglycemia). Analysis results were also obtained the value OR 13,14, meaning respondents aged 60 years of age had a risk 13,14 times to experience hyperglycemia than respondents aged < 60 years.

b) Relationship between the anxiety with Hyperglycemia in Diabetisi already Using OHD

Table 9: Distribution of Respondents By level of anxiety and Hyperglycemia

The Level Of Anxiety	Hyperglycemia				Total		P Value	OR
	Yes		Not		n	%		
	n	%	n	%				
Anxious	21	77,8	6	22.2	27	100	0.006	7,875 (1.78 – 34,83)
Not be anxious	4	30,8	9	69,2	13	100		
The amount of	25	62.5	15	37.5	40	100		

Table 9 analysis results showed that there were 21 (77.8%) of the respondents experiencing anxiety also experienced hyperglycemia, and there were 4 (30,8%) of respondents who did not experience the anxiety but experienced hyperglycemia.

Results of statistical tests obtained p value = 0.006 was smaller than the value of = 0.05 (p < value), meaning that there was differences between the proportion

of respondents that hyperglycemia incident experienced anxiety with respondents who did not experience anxiety (there was significant relationship between anxiety level with incidence of hyperglycemia). Analysis results are also obtained the value OR 7, 875 meaning respondents who have anxiety have 7,875 times risk for experiencing hyperglycemia than from the respondents that did not.

b) Relationship between Compliance Diit with Hyperglycemia in Diabetisi already Using OHD

Table 10 Distribution of Respondents By level of Compliance Diet and Hyperglycemia

Calorie Level	Hyperglycemia				Total		P Value	OR
	Yes		Not		n	%		
	n	%	n	%				
Excess	19	79,2	5	20.8	24	100	0.02	6,33 (1.5-26)
As needed	6	37.5	10	62.5	16	100		
The amount of	25	62.5	15	37.5	40	100		

Table 10 analysis results described that there were 19 (79.2 %) of respondents who have habit consume excess calorie also experienced hyperglycemia, and

there were 6 (37.5%) of respondents who have habit of calorie consumption according to needs but experience hyperglycemia.

Results of statistical tests obtained p value = 0.02 was smaller than the value of = 0.05 (p value <), which means that there was differences between the proportion of events with hyperglycemia respondent who have habit consume excess calorie with respondents who had habit of consumption as needed (there was significant relationship

between the level of consumption of calories with the incidence of hyperglycemia). Analysis results were also obtained the value OR 6,33, meaning that respondents have 6,33 habit of excess calorie consumption has 6,33 times risk for experiencing the hyperglycemia than respondents have habit consumecalorie as needed.

c) The relationship between Sports Activity Regularity with Hyperglycemia among DM Patients already taking OHD

Table 11 Distribution of Respondents By level of Order activity and Hyperglycemia

Rate Exercises	Hyperglycemia				Total		P Value	OR
	Yes		Not		n	%		
	n	%	n	%				
Irregular	18	81,8	4	18,2	22	100	0,014	7,07 (1.67 – 29.82)
Regular	7	38,9	11	61,1	18	100		
The amount of	25	62.5	15	37.5	40	100		

Table 11 analysis results described that there were 18 (81,8%) of respondents who have irregular habit of activity, sport or excercies experience hyperglycemia, and there were 7 (38.9%) of respondents having regular excercies experienced hyperglycemia.

Results of statistical tests obtained p value = 0,014 was smaller than the value of = 0.05 (p value <), which means that there was differences between the proportions of respondent irregular excercieswith

hyperglycemia with respondents who have habit of regular exercises or activity (there was significant relationship between habitual activity or sport with events of hyperglycemia). Analysis results were also obtained the value OR meaning that respondents have 7,07 habitual activity or irregular sport has risks 7,07 times to experience hyperglycemia from the respondents who have habit of activity or sport on a regular basis.

d)The relations between Regularconsumption OHD with Hyperglycemia among DM patients already taking OHD

Table 12 Distribution of Respondents By degree of consumption OHD and Hyperglycemia

Consumption of OHD	Hyperglycemia				Total		P Value	OR
	Yes		Not		n	%		
	n	%	n	%				
Irregular	24	72,7	9	27.3	33	100	0.007	16 (1.68-152)
Regular	1	14.3	6	85,7	7	100		
The amount of	25	62.5	15	37.5	40	100		

Table 12 analysis results described that there were 24 (72,7 %) of respondents who have habitirregularconsumption OHD, experienced hyperglycemia, and there was 1 (14.3%) of respondents who have habit of consumption OHD regular but experienced hyperglycemia.

Results of statistical tests obtained p value = 0.007 was smaller than the value of = 0.05 (p value <), which means that there differences between the proportion

of events with hyperglycemia respondent irregular consumption OHDwith respondents who have habit regular consumption of OHD (there was significant relationship between consumption habits OHD with hyperglycemia). Analysis results were also obtained the value OR16, meaning respondents who have irregular OHD consumption habits have 16 times to experience the risks of hyperglycemia than respondents who have habit of regular consumption of OHD.

e) The relationship between the knowledge of DM Management with Hyperglycemia among DM patients already taking OHD

Table 13 Distribution of Respondents By level of Knowledge Management DM and Hyperglycemia

Knowledge	Hyperglycemia				Total		P Value	OR
	Yes		Not		n	%		
	n	%	n	%				
Less	24	77,4	7	22.6	31	100	0.001	27.4 (2.9 – 258)
Good	1	11.1	8	88,9	9	100		
The amount of	25	62.5	15	37.5	40	100		

Table 13, Analysis results described that there were 24 (77,4%) of respondents who have less knowledge about the DM management experienced hyperglycemia, and there was 1 (11.1%) of respondents who have good level of knowledge but experience hyperglycemia.

Results of statistical tests obtained p value = 0.001 was smaller than the value of = 0.05 (p value <), which means that there was differences between the proportion of events with hyperglycemia respondents with less knowledge with respondent whohave good knowledge (there was significant

relationship between knowledge management knowledge of DM with hyperglycemia). Analysis results were also obtained the value OR27.4, meaning that respondents have less knowledge about risk management, DM 27.4 times to experience hyperglycemia than respondents who have good level of knowledge.

Discussion

1. The relationship between Age and Hiperglycemia in Diabetisi already Using OHD

Results of statistical tests showed there were differences proportions of aged respondents hyperglycemia incidence between 60 years with respondents age < 60 years (there is a significant relationship between age and incidence of hyperglycemia).

The levels of glucose blood increase with arising of aged for the five decades later. Frequency increases with the increase of age, approximately 10%-30% of the 60 years.

This was similar with results of Mihardjas study, which said that age > 60 years old have the opportunity to experience the hyperglycemia's 6.7 times in compare middle age. This can occur because at age > 55 years, production of insulin by the pancreas decrease very drastic. In addition, age > 60 years old going on insulin resistance which is very significant.

2. The relationship between the anxiety with Hyperglycemia among DM patient already taking OHD

Results of statistical tests were obtained there was difference proportion between the hyperglycemia respondents with experienced anxiety with respondents who did not experience anxiety (there was significant relationship between anxiety level with incidence of hyperglycemia).

Soegondo, *et al* (2011), hyperglycemia in patients with DM can be caused by many factors as fear, anger, anxiety, fever, flu, infections and other illness that can cause stress and increase levels of glucose blood.

Anxiety or stress will cause the beta cells in pancreas fails to produce insulin or obstructed. At condition of stress is generally increase hormones glucagon and formation of glucose will be increased but the using of glucose in the peripheral level was decrease, which triggered hyperglycemia.

3. The relationship between obedient of diet with Hyperglycemia among patient DM already taking OHD

Results of statistical tests were obtained there was difference proportion hyperglycemia respondents with excess calorie consumption with respondents who had habit consume calorie as needed (there was significant relationship between the level of consumption of calories with the incidence of hyperglycemia).

The consumption of calories from carbohydrates will produce glucose which will be used by the body to produce energy. In people with type II DM going decline in insulin production, excessive calorie consumption will be increasingly overload the body with no using

glucose formed into energy, so that the body's glucose levels would be increased (Sugondo, 2011).

Calorie needs in people with DM were sourced from carbohydrates should only 60-70% of total calories. In addition, the need for calories in people with DM no more than 25-30 Cal/KgBodyweight. DeFronzo cited in Soegondo, 2011, explains an excessive blood glucose levels in the blood due to excessive carbohydrate consumption can cause destruction of the beta cells of the pancreas that the function for the producing of insulin.

4. The relationship between Regularity of activities with Hyperglycemia on DM patients already taking OHD

Results of statistical tests were obtained there was a difference between the proportion of events with respondents hyperglycemia habit of activity or sport is irregular with respondents who have a habit of regular exercise or activity (there was a significant relationship between habitual activity or sport with events of hyperglycemia).

Vranic, *et al* in Soegondo(2011) Stated that sport was very important for controlling the glucose blood levels. Some of the results with cohort studies found that cases of type II DM was higher in the group that performs the activity or sport less than 1 times a week compared to the group that performs the activity or exercise 5 times a week. Other research to the nursing women who do sport during eight years obtained the risk of type II DM is decreased by 33%.

The main source of energy on someone who is doing a sport derived from glucose and free fatty acids. Glucose will be used on the

initial activity and after 30 minutes new free fatty acids will be used to produce energy. Chaveau and Kaufman (1889) in Soegondo (2011) said sports at diabetes will lead to increased use of glucose by muscles active. Sport on diabetes was the major role in the setting of blood glucose levels and improve response to insulin receptors.

5. Relation between regularity of consumption OHD with Hyperglycemia among DM patients already taking OHD

Results of statistical tests are obtained there is a difference between the proportion of events with hyperglycemia respondent OHD irregular consumption habits with respondents who have a habit of regular consumption of OHD (there is a significant relationship between consumption habits OHD with hyperglycemia).

Purpose of Oral Hypoglycemia Drug (OHD), to control blood glucose levels in chemistry or Pharmacology term. Some of the effects of the use of the OHD among others 1) insulin production stimulation by beta cell 2) increase sensitivity to insulin receptor and 3) inhibits the formation of glucose.

Soegondo (2011) States to achieve targets controlling glucose at diabetics then needed a combination of activities, planning meals and proper use of OHD. The use of improper OHD or irregular, would lead to hyperglycemia and are at risk for experiencing complications as a result of the long hyperglycemia in life. A statistically derived that 58% diabetes consume OHD with dosage and time is not appropriate that cause of the persistent Hyperglycemia.

6. The relationship between Knowledge of DM Management with Hyperglycemia among DM patients already taking OHD

Results of statistical tests were obtained there was difference between the proportion of events with hyperglycemia respondents with less knowledge of respondents who have a good knowledge (there was significant relationship between knowledge of DM management with hyperglycemia).

Various studies, generally showed that patient obedient to the treatment of chronic diseases were low. A good knowledge of DM management is very important for diabetisi, because DM is chronic disease that lasts in long time. Patient who have good knowledge is expected to change his behavior and control his illness so that his quality of life is more better. 80% diabetisi with inadequate knowledge using OHD in correct as inject the insulin dose and route are not true, 58% use dosage and time consumption of inappropriate OHD and 75% do not follow a diet that is not right. This condition will going to cause the levels of glucose blood uncontrolled.

The Limitations of the Research

In the process of research, there were some limitations, include 1) Limited of the amount research samples, 2) limitations in validation of data or information provided by the respondents, because the interview was only method for data collection. This condition influenced the result of research.

Conclusion and Recommendation

A summary of this study included 1) Distribution of the levels glucose blood from patients who

already using OHD, majority of respondent was hyperglycemia (62.5%), majority of respondents have age above 60 years (75%), 65% respondents was experiencing anxiety, 57,5% respondents not obedient to diet, respondents with irregular exercises, 80% respondents using irregularly medication and 75% respondents have less knowledge of DM management. 2) there was relationship between psychological problems (anxiety) and hyperglycemia in DM patients who already using OHD, 3) there was relationship between age and hyperglycemia in DM patients who are already using OHD, 4) there was relationship between obedient of diet with hyperglycemia in DM patients who already using OHD, 5) there was relationship between regular physical activities with hyperglycemia in DM patients who already using OHD, 6) there was relationship between regularity consumption of OHD with hyperglycemia in DM patients who already using DM OH, 7) there was relationship between knowledge of DM management with hyperglycemia in DM patients who already using OHD.

Conclusions in the research, it was recommended for the DM manager to observe and identify the factors that contribute to the occurrence of hyperglycemia in DM patients that taking OHD but the levels of glucose blood not yet stable.

References

Almatsier, Sunita, 2008. *The Basic Principles Of Nutrition*, Jakarta: PT Gramedia Pustaka

- Lampung Province Health Office
2008. *Profile Of Health
Province Of Lampung.*
- Manjoer, Arief, 2001. *Medical
Capita Selecta* , Vol. 1,
Jakarta: Media Aesculapius
- Mihardja L, 2009, *Factors Related
To Blood Glucose Control In
People With Diabetes Mellitus
In Indonesia Urbans,*
Indonesia Medicine Magazine,
Volume: 59 number: 9
- Notoatmodjo, S, 2010, *Methodology
of Health Research,*Jakarta:
Cipta Rineka Publisher
- RI Department of health, 2008. *DM
Surveilen.* Jakarta Department
Of RI
- Soegondo, S. et al, 2011, *Integrated
Treatment of Diabetes mellitus,*
Second Edition, Jakarta: The
Publishers of Medicine.
- Soegondo S, (2006), *Diabetes
mellitus as a risk factor for
Cardiovascular Disease, the
Main* Jakarta: Indonesia
Doctors Association (IDI)
- SudigdoSatroasmoro, et al,
2002,*basics of clinical
research Methohdlogy;* Second
Edition, Jakarta: SagungSeto
- Suzanne c. Smeltzer, 2002, *Medical
Surgical Nursing.* The eight
Edition Vol2., Jakarta: EGC
medical books
- World Health Organization (WHO),
2005, *National Diabetic
Statistics,* downloaded from
([http://www. WHO.org.id](http://www.WHO.org.id))
accessed March 5, 2013