THESIS

THE CORRELATION BETWEEN SELF MANAGEMENT LEVEL AND BLOOD GLUCOSE IN TYPE 2 DIABETES MELLITUS AT KLATAK COMMUNITY HEALTH CENTER IN 2022



BACHELOR OF NURSING STUDY PROGRAM

BANYUWANGI INSTITUTE OF HEALTH SCIENCE

BANYUWANGI

2022

THESIS

THE CORRELATION BETWEEN SELF MANAGEMENT LEVEL AND BLOOD GLUCOSE IN TYPE 2 DIABETES MELLITUS AT KLATAK COMMUNITY HEALTH CENTER IN 2022

To obtain a Bachelor of Nursing Degree (S. Kep) in the Nursing Study Program at

Banyuwangi Institute of Health Sciences

By:

DWI YUSTIKA SARI

2018.02.012

BACHELOR OF NURSING STUDY PROGRAM BANYUWANGI INSTITUTE OF HEALTH SCIENCE BANYUWANGI

2022

STATEMENT OF ORIGINALITY

I hereby declare that this thesis is the result of my own scientific writing, and I do not do plagiarism activities in writing this thesis entitled:

"The Correlation Between Self Management Level and Blood Glucose in Type 2 Diabetes Mellitus at Klatak Community Health Center in 2022"

If one day I am proven to do plagiarism activities, then I will take full responsibility and accept consequences.

This I make this statement whit truth.

Banyuwangi, 30th June 2022

DWI YUSTIKA SARI

2018.02.012

APPROVAL SHEET

Thesis entitled:

The Correlation Between Self Management Level and Blood Glucose in Type 2

Diabetes Mellitus at Klatak Community Health Center in 2022

DWI YUSTIKA SARI

2018.02.012

Thesis has been approved

On June, 30th 2021

By

The Frist Advisor

Ns. ANITA DWI ARIYANTI, M. Kep

NIDN: 060580510

The Second Advisor

Ns. MASRONI, S. Kep., M.S.N

NIDN: 061220318

Head of Bachelor of Nursing Study Program

Ns. SHOLIHIN, M. Kep

NIK: 060050906

RATIFICATION OF THE EXAMINER

Thesis entitled:

The Correlation Between Self Management Level and Blood Glucose in Type 2

Diabetes Mellitus at Klatak Community Health Center in 2022

Submitted by:

DWI YUSTIKA SARI

2018.02.012

Examined in front of Examiners Team in the Bachelor of Nursing Study Program

at Banyuwangi Institute of Health Sciences

On August, 2022

EXAMINERS TEAM

The 1st Examiner : Ns. Rudiyanto, M. Kep

The 2nd Examiner: Ns. Diana Kusumawati, S. Kep. M. Kes

The 3rd Examiner : Ns. Anita Dwi Ariyanti, M. Kep

Chairman

Banyuwangi Institute of Health Sciences

DR. H. SOEKARDJO

NIK: 06.001.0906

PUBLICATION APPROVAL STATEMENT FINAL PROJECT FOR ACADEMIC INTEREST

The undersigned below:

Name: DWI YUSTIKA SARI

Nim : 201802012

I solemnly declare that the results of my research with the title:

"The Correlation Between Self Management Level and Blood Glucose in

Type 2 Diabetes Mellitus at Klatak Community Health Center in 2022"

Willing to be published in a magazine or scientific journal on behalf of the supervisor while still including my name as a researcher.

Banyuwangi, 05th August 2022

Who make a statement

Dwi Yustika Sari

2018.02.012

PREFACE

Praise be to God Almighty for all His blessings and guidance so that the author can complete the Research Thesis entitled "The Correlation Between Self Management Level and Blood Glucose in Type 2 Diabetes Mellitus at Klatak Community Health Center In 2022", as one of the requirements for obtained a Bachelor of Nursing (S. Kep) in the S1 Nursing study program of STIKES Banyuwangi. In this case the author has received a lot of help from various parties, therefore on this occasion the author would like to thanks:

- 1. DR. H. Soekardjo as the Head of STIKES Banyuwangi who has provided opportunities and facilities for researchers to participate in and complete the Nursing Study Program education at STIKes Banyuwangi.
- 2. Ns. Sholihin, S. Kep., M. Kep as Head of the STIKES Banyuwangi S1 Nursing Study Program.
- 3. Ns. Anita Dwi Ariyanti, M. Kep and Ns. Masroni, S. Kep., M.S.N as a Advisory Lecturer who has provided guidance to the author so that he can complete this thesis.
- 4. Ns. Rudiyanto, M. Kep and Ns. Diana Kusumawati, S. Kep. M. as a examiner and supervisor who has provided guidance to the author so that he can complete this thesis.
- 5. Sudarto Setyo N.N., SKM., M. Kes as Head of the Banyuwangi District Health Office and drg. Zelfia as the Head of the Klatak Community Health Center has given permission and the opportunity to conduct research at the Klatak Community Health Center.

- Mr. Muhammad Nashir, M. Pd, Mrs. Wahyu Adri Wirawati, MA and Miss Ns.
 Rima Ambarwati, S. Kep as English lectures who always motivated me to improve in English skill.
- 7. To my beloved and beloved parents, Mr. Yusron Anshori and Mrs. Susianti and elder sister Silvia Puspita Sari, the family who have provided motivation, prayers, and support in terms of moral and material.
- 8. Ramadhan Ardhiansyah who has helped and supported me to complete my research thesis.
- 9. Fellow comrades for students of level 4A and 4B Nursing Study Program STIKES Banyuwangi, and all parties who helped complete this research thesis.

May God Almighty reward you for all the good deeds that have been given. The author realizes that this research proposal still has many shortcomings in writing, compiling, or presenting the material. For this reason, the authors expect criticism and suggestions from readers as material to complete the preparation of the next report and hopefully this research proposal will be useful for all parties.

Banyuwangi, 08th February 2022

Writer

<u>Dwi Yustika Sari</u> 2018.02.012

ABSTRACT

THE CORRELATION BETWEEN SELF MANAGEMENT LEVEL AND BLOOD GLUCOSE IN TYPE 2 DIABETES MELLITUS AT KLATAK COMMUNITY HEALTH CENTER IN 2022

Bv:

Dwi Yustika Sari

Bachelor of Nursing Banyuwangi Institute of Helath Sciences Email: dwiyustika8902@gmail.com

Diabetes mellitus (DM) is a condition of high blood sugar levels caused by unstable blood sugar levels in diabetics. DM can not only be treated with pharmacological therapy, but must be followed by non-pharmacological therapy, one of which is self-management. This study aimed to determine the relationship between the level of self management and blood glucose in type 2 diabetes mellitus at the Klatak Health Center in 2022.

This research method used a cross sectional design with 35 respondents were selected by accidental sampling technique. Data collection used Questionnaire Summary Diabetes Self Care Activities (SDSCA) and Glucometer which was held on May 11 th – May 23 rd, 2022.

The results of data analysis were (62,9%) patients with Type 2 DM experienced self-management in the medium category and (88,6%) experienced blood sugar levels in the high category. After testing by using the Spearman rank test with SPSS version 25 with a significance of 0,05 (5%), obtained P value of 0,180 which means (P>0,05), the alternative hypothesis is rejected and H0 is accepted, meaning that there is no relationship between self-management and glucose blood in patients with type 2 diabetes mellitus. With a close correlation of 0,232, the correlation strength was low. The correlation coefficient is negative so that the relationship between the two variables is not in the same direction.

It is very important for respondents to improve self-management in order to have stable or normal blood sugar levels, this can prevent complications in people with diabetes Mellitus. It is very important for respondents to improve self-management in order to have stable or normal blood sugar levels, this can prevent complications in people with Diabetes Mellitus. The higher the level of self-management, the lower the blood sugar.

Keywords: Self Management, Blood Sugar Levels, Type 2 Diabetes Mellitus

TABLE OF CONTENT

TITLE PAGE & DEGREE REQUIREMENTSi
STATEMENT OF ORIGINALITYii
APPROVAL SHEET iii
RATIFICATION OF THE EXAMINER iv
PUBLICATION APPROVAL STATEMENT v
PREFACEvi
ABSTARCTviii
TABEL OF CONTENTSix
LIST OF DIAGRAM xiii
LIST OF TABLESxiv
LIST OF ABBREVIATIONSxvi
LIST OFAPPENDIXxvii
CHAPTER 1 INTRODUCTION1
1.1 Background1
1.2 Problem Formulation
1.3 Objective of study4
1.3.1 General Aim
1.3.2 Specific Aim
1.4 Expected Result
1.4.1 Theoretical
1.4.2 Practical5
CHAPTER 2 LITERATURE REVIEW7
2.1 Overview of Diabetics
2.1 Overview of Diabetics

	2.1.1	Definition of Diabetics	7
	2.1.2	Classification	7
	2.1.3	Risk Factors	9
	2.1.4	Signs and Symptoms	13
	2.1.5	Pathophysiology	15
	2.1.6	Prevention	17
	2.1.7	Management of Diabetes Mellitus	19
	2.1.8	Complications	21
	2.1.9	Diagnosis of type II DM	23
	2.1.10	Definition of Blood Glucoses	24
	2.1.11	Checking Blood Glugoces	25
6	2.1.12	Benefits of Checking Blood Glucose Levels	27
2.2	Overvi	ew of Diabetes Self - Management	27
40	2.2.1	Definition of Diabetes Self - Management	<mark>27</mark>
1	2.2.2	Benefits of Self-Management.	28
	2.2.3	Aspects of Self-management	28
	2.2.4	Factors for self-management of diabetes militus	33
	2.2.5	Diabetes Self - Management Level Assessment Instrumen	ıt 35
	2.2.6	The Effect of Self - Management on Blood Glucose	37
2.3	Tabel si	ntesis	38
СНАРТІ	ER 3 CO	NCEPTUAL FRAMEOCCOPATION AND	
Н	POTH	ESES	45
3.1	Concep	tual Frameoccopation	45
3.2	Researc	h Hypothesis	46

CHAPTER 4 RESEARCH METHODOLOGY	. 47
4.1 Types of Research and Research Design	. 47
4.2 Frame Occupation	. 48
4.3 Population, Sample, and Sampling Technique	. 49
4.3.1 Research Population	. 49
4.3.2 Research Sample	. 49
4.3.3 Sampling Technique	. 50
4.4 Variable Identification	. 51
4.4.1 Independent Variable (Independent Variable)	. 51
4.4.2 Dependent Variable (Bound Variable)	. 51
4.5 Operational Definition	. 51
4.6 Research Instruments	. 54
4.7 Research Location and Time	. 54
	. 54
4.7.2 Research Time	. 54
4.8 Data Collection	. 54
4.9 Data Processing	. 55
4.10 Statistical Analysis	. 56
4.11 Research Ethics	. 57
4.12 Research limitations	. 59
CHAPTER 5	. 60
5.1 Research result	. 60
5.1.1 Demographic Data	. 60
5.1.2 General characteristics of respondents	. 63

5.1.3 Respondent spesific data	66
5.2 Discussion	68
5.2.1 Self Management in Patients in Type 2 DM.	68
5.2.2 Blood glucose in Type 2 DM	71
5.2.3 The Relationship of Self Management and B	lood glucose in
Type 2 DM	75
CHAPTER 6	80
6.1 Conclusion	80
6.2 Suggestions	80
REFERENCE	82
APPENDIX	93
SEKONANANANANANANANANANANANANANANANANANANA	AATAN

LIST OF DIAGRAM

Diagram	3.1	Conceptual	Frameoccopation:	The	Correlation	Between	Self
M	anage	ment Level a	nd Blood Glucose in	1 Туре	2 Diabetes M	Militus at K	Ilatak
Co	mmu	nity Health C	enter in banyuwangi	2022		2	45
Diagram 4	4.1 Fr	ameoccopatio	n: The Correlation E	Betwee	n Self Manag	ement Leve	el and
Bl	ood (Glucose in T	ype 2 Diabetes Me	llitus a	at Klatak Co	mmunity H	lealth
Ce	enter i	n 2022				∠	18



LIST OF TABLES

Table 2.1 Blood Glucose Fasting
Table 2.2 Blood Glucose HbAIc Test
Tabel 2.3 Kuesioner Summary of Diabetes Self-Care Activity (SDSCA) 36
Table 2.4 Synthesis Table
Table 4.2 Operational Definition The Correlation Between Self Management Leve
and Blood Glucose in Type 2 Diabetes Mellitus at the Community Health
Center in Klatak in 202252
Table 4.3 Interpretation of Correlation Value
Table 5.1 Distribution of respondents by age with type 2 DM at the Klatak
Community Health Center in 2022
Table 5.2 Distribution of respondents by gender with type 2 DM patients at the
Klatak Community Health Center in 202263
Table 5.3 Distribution of respondents based on the education of type 2 DM patients
at the Klatak Community Health Center in 2022
Table 5.4 distribution of respondents based on the occupation of patients with type
2 DM at the Klatak Community Health Center in 2022
Table 5.5 Distribution of respondents based on religion with type 2 DM at the
Klatak Community Health Center in 2022
Table 5.6 distribution of respondents based on the duration of type 2 DM patients
at the Klatak Health Center 2022
Table 5.7 Distribution of respondent specific characteristics based on the self-
management variable of type 2 DM patients at the Klatak Community
Health Center in 202266

Table 5.8	B Distribution of respondent spesific characteristics based on the variable	le
	blood glucose of patients with type 2 diabetes at the Klatak Communit	ţy
	Health Center in 202266	

Table 5.9 Distribution the correlation self management and blood glucose of patients with type 2 diabetes at the Klatak Community Health Center in



LIST OF ABBREVIATIONS

IDF : Internasional Diabetes Federation

WHO : World Health Organization

ADA : American Diabetes Assocition

GDPT : Glukosa Darah Puasa Terganggu

BMI : Body Massa Index

GDM : Gestational Diabetes Mellitus

Riskesdas : Riset Kesehatan Dasar

Dinkes : Dinas Kesehatan

DM : Diabetes Mellitus

Kemenkes : Kementerian Kesehatant

DMT2 : Type 2 Diabetes Mellitus

OGTT : Oral Glucose Tolerance Test

NIDDM: Non Insulin Dependent Diabetes Melitus

ACTH : Adrenocortrocotopric Hormone

TGT : Toleransi Glukosa Terganggu

GDP : Gula Darah Puasa

GDS : Gula Darah Sewaktu

HbAIC : Glycated Hemoglobin atau Glycosylated Hemoglobin

HHNK : Hiperosmeler Non Ketotik

SDSCA : Summary of Diabetes Self-Care Activity Questionnaire

LIST OF APPENDICES

Appendix 1 Letter of Approval for Submission of Title	. 93
Appendix 2 Letter of Preliminary Data Request	. 94
Appendix 3 Application for Cover Letter to Klatak Health Center	. 95
Appendix 4 Data Collection at The Health Department	. 96
Appendix 5 Permission to Register	. 97
Appendix 6 Matrix of Schedule	. 98
Appendix 7 Approval Sheet to Become a Respondent	. 99
Appendix 8 Appendix 8 Standart Operating Procedur	. 101
Appendix 9 Self Care Activity Questionnaire	. 102
Appendix 10 Observation Sheet	. 106
Appendix 11 Student Consultation Sheet	. 107
Appendix 12 Student Revision Sheet	. 109
Appendix 13 Description of Passing Ethical Review	. 112
Appendix 14 Research Permit Application Letter	. 113
Appendix 15 Research Permit Application Letter	. 114
Appendix 16 Crosstab Self Management	. 115
Appendix 17 Crosstab Blood Glucose	. 121
Appendix 18 Crosstab Random Blood Glucose and Self Management	. 12:
Appendix 19 Research Documentation	. 126
Appendix 20 Student Consultation Sheet	. 128
Appendix 21 Student Revision Sheet	. 130
Appendix 22 Self-Management Questionnaire Results	. 133
Appendix 23 Tabulation Data	. 134