

## TABLE OF CONTENTS

RATIFICATION PAGE .....	I
AUTHENTICITY STATEMENT .....	II
ACKNOWLEDGEMENT .....	III
TABLE OF CONTENTS .....	1
LIST OF TABLES .....	VII
LIST OF FIGURES .....	VIII
LIST OF ATTACHMENTS .....	IX
ABBREVIATION.....	X
ABSTRACT.....	XII
<b>CHAPTER I INTRODUCTION.....</b>	<b>1</b>
A. BACKGROUND.....	1
B. PROBLEM FORMULATION .....	4
C. STUDY ORIGINALITY.....	5
D. STUDY BENEFIT .....	7
E. STUDY OBJECTIVES.....	8
<b>CHAPTER II LITERATURE REVIEW.....</b>	<b>9</b>
A. CHRONIC HEART FAILURE .....	9
1. <i>Definition</i> .....	9
2. <i>Etiology</i> .....	10
3. <i>Diagnosis</i> .....	11
4. <i>Classsification</i> .....	13
5. <i>Pathophysiology</i> .....	15
6. <i>Medications</i> .....	20
B. BODY MASS INDEX (BMI) .....	22
1. <i>Definition</i> .....	22
2. <i>Classification</i> .....	23
3. <i>BMI as the adiposity indicator</i> .....	24
C. CORRELATION BETWEEN CHF AND BMI IN MORTALITY .....	27
1. <i>Compensatory biomechanism underlying the obesity paradox</i> .....	28
1.1 Enhanced fatty acid utilization.....	29
1.2 Adipokines production.....	30
1.3 Endotoxin-lipoprotein hypothesis.....	32

1.4 Body compartment composition.....	32
2. <i>Other factors that may influence the association of BMI with mortality in CHF patients</i> .....	35
D. THEORETICAL FRAMEWORK.....	41
E. CONCEPTUAL FRAMEWORK .....	42
F. HYPOTHESIS .....	42
<b>CHAPTER III RESEARCH METHOD .....</b>	<b>43</b>
A. STUDY DESIGN.....	43
B. LOCATION AND TIME .....	43
C. POPULATION AND SUBJECT .....	43
1. <i>Research Population</i> .....	43
2. <i>Research Subject</i> .....	43
3. <i>Research Subject Criteria</i> .....	44
3.1 Inclusion Criteria.....	44
3.2 Exclusion Criteria. ....	44
4. <i>Estimated Sample Size</i> .....	45
D. VARIABLE IDENTIFICATION.....	47
E. OPERATIONAL DEFINITION.....	47
F. RESEARCH FLOW .....	50
G. STATISTICAL ANALYSIS .....	51
H. ETHICAL CONSIDERATIONS .....	52
<b>CHAPTER IV RESEARCH RESULTS AND DISCUSSION .....</b>	<b>53</b>
A. RESEARCH RESULTS.....	53
B. DISCUSSION .....	60
1. <i>Clinical characteristics between BMI groups of CHF patients</i> .....	60
2. <i>BMI as predictor of mortality in CHF patients</i> .....	71
3. <i>Other significant predictor of mortality in CHF patients</i> .....	73
C. POSSIBLE APPLICATION OF THE RESEARCH.....	76
D. RESEARCH LIMITATIONS .....	77
<b>CHAPTER V CONCLUSION AND SUGGESTION .....</b>	<b>78</b>
A. CONCLUSION.....	78
B. SUGGESTION .....	78
REFERENCES.....	79
ATTACHMENTS .....	96