

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGMENTS	iii
ABSTRACT	iv
TABLE OF CONTENTS	ix
LIST OF TABLES	xii
LIST OF FIGURES	xiii
LIST OF ABBREVIATIONS	xiv
CHAPTER I: INTRODUCTION	
1.1 Rational	1
1.2 Research hypotheses	5
1.3 Purpose of the study	6
CHAPTER II: LITERATURE REVIEW	
2.1 Pilates Philosophy	7
2.2 The benefit of Pilates Method in the research literature	8
2.3 The control of lumbo-pelvic posture	10
2.4 Flexibility	11
2.5 Psychological stress	12
2.6 Education/application advantages	12

CHAPTER III: METHOD

3.1 Study design	14
3.2 Blinding procedure	14
3.3 Randomized assignment	14
3.4 Participants	14
3.5 Inclusion / exclusion criteria	15
3.6 Outcome measures	16
3.6.1 The lumbo-pelvic stability test	16
3.6.2 Sit-and-reach flexibility test	18
3.6.3 Psychological stress test	20
3.7 Pilates exercise program	20
3.8 The study procedures	25
3.9 Statistical Analysis	26
3.9.1 Lumbo-pelvic movement control data	26
3.9.2 Flexibility data	26
3.9.3 Psychological stress data	26
3.10 Location	26
3.11 Duration	26

CHAPTER IV: RESULTS

4.1 Reliability and standard error of measurements	27
4.2 Characteristic of participants in the study	29
4.3 Drop-out rate	30
4.4 Flexibility (sit-and-reach-box test)	30

4.5 Lumbo-pelvic movement control	33
4.6 Psychological stress	35
CHAPTER V: DISCUSSION	
5.1 Flexibility	36
5.2 Lumbo-pelvic movement control	44
5.3 Psychological stress	54
5.4 Conclusion	62
5.5 Thesis study limitations	63
5.6 Suggestions	64
REFERENCES	65
APPENDIX	
Stress Inventory questionnaire	80
VITA	89

LIST OF TABLES

TABLE	PAGE
1. The characteristics and demographic of subjects in the reliability session	27
2. Summary table for the intraclass correlation coefficients (ICCs), standard error of the measurements (SEMs) and Kappy statistic for the dependent variables of Lumbo-pelvic movement control and sit-and-reach tests	29
3. The characteristics and demographic of subjects	29
4. Pilates training attendance	30
5. Percentage (number) of subjects passing the lumbo-pelvic stability test from the Pilates training and control groups during the period of study (0, 4, and 8 weeks)	33
6. The scores of psychological stress level of Pilates and control groups at 0, 4, and 8 weeks for the period of experiment (Mean \pm SD)	35

LIST OF FIGURES

FIGURES	PAGE
1. Stabilizer pressure biofeedback unit or PBU	17
2. Lumbo-pelvic movement control testing equipment (i.e., Barrier, scale, goniometer, and Pressure Biofeedback Units)	17
3. Lumbo-pelvic movement control test	18
4. Sit-and-reach box test	19
5. Pilates exercise initial period	22
6. Pilates exercise advanced period	24
7. Data of Mean \pm SD in flexibility at baseline (0 week), 4, and 8 weeks of the Pilates training group	31
8. Data of Mean \pm SD in flexibility at baseline (0 week), 4, and 8 weeks of the control group	32
9. Data of Mean \pm SD in flexibility at baseline (0week), 4, and 8 weeks between Pilates training and control groups.	32
10. The bar graph represents the percentages of the Pilates training and control groups passing the lumbo-pelvic stability test	34
11. The bar graph represents the percentages of the Pilates training and control group failing the lumbo-pelvic stability test	34

LIST OF ABBREVIATIONS

cm: Centimeter

Fig: Figure

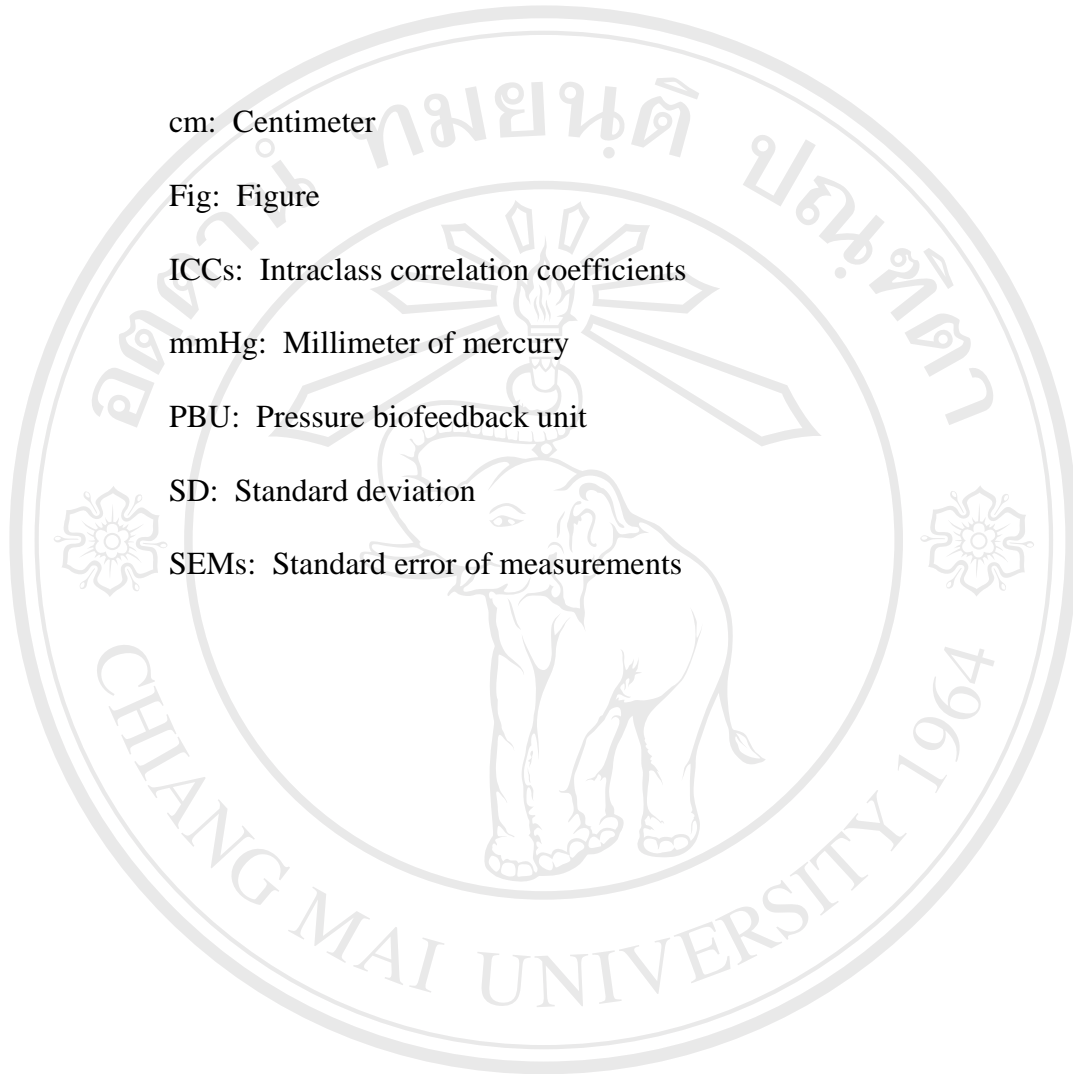
ICCs: Intraclass correlation coefficients

mmHg: Millimeter of mercury

PBU: Pressure biofeedback unit

SD: Standard deviation

SEMs: Standard error of measurements



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright © by Chiang Mai University
All rights reserved