DEDICATION

It is pleasure to express my great thanks and appreciation to my mother, father, three sisters and three brothers, particularly my oldest brother, Ahamed Abdul Hafeeth and his son. I am immensely indebted to their great encouragement, financial support and generous assistance.
RELATIONSHIP BETWEEN BELIEF SYSTEMS AND EMOTIONAL DISTURBANCES AMONG UNDERGRADUATE STUDENTS IN TAIZ UNIVERSITY, YEMEN

By

NASER ABDUL HAFEETH

February 2006

Chairman: Haji Othman Bin Dato' Hajji Mohamed, PhD
Faculty: Educational Studies

Problems such as low academic achievement, maladjustment with self and others, irrational cognitive systems and emotional disturbances have not been investigated among university students in Yemen. Four instruments were therefore selected and distributed to an overall sample of 800 subjects with 456 of the instruments returned. Nevertheless, the n= 456 met the minimum required sample size (Cohen, 1988; Othman, 2001).

The current study comprises descriptive correlational research to explore the relationship between a set of belief systems and a set of emotional disturbances among undergraduate students at Taiz University in Yemen.

The results of the research indicated that the set of belief systems as the predictive variables intercorrelated within the same set and with the set of criterion variables are
also intercorrelated within the same set as proved by Canonical Correlation Analyses (CCA).

The four methods of Pillai's, Hotelling's, Wilks's and Roy's canonical correlation were explored to evaluate the full canonical model. However, in this research, Multivariate Analysis with Wilks's Lambda $\lambda$ was used, as it tends to have the most general applicability. The full model was statistically significant with a Wilks's Lambda $\lambda = .903$, $F (16, 892.00) = 2.906$, $p < .001$. There was a correlation of $= .25$ between the predictive and the criterion variables. However, this correlational level was less than $= .30$, which is generally recommended as significant for canonical correlation analysis. Nevertheless, this nonsignificance is consistent with second-generation assessments in Rational Emotive Behavioral Therapy. The second canonical correlation model revealed that some demographic variables such as gender, marital status, age and faculty are also related with belief systems.

The multivariate significant differences were found among the variables: in need for approval, demand for comfort, demand for fairness and depression with social anxiety across male and female students. Also, significant differences were found in belief systems across some demographic variables such as high and low cognitive distortion, type of study, faculty, age and year of study.
PERHUBUNGAN DI ANTARA SISTEM KEPERCAYAAN DAN DIPRESSI DENGAN KEGELISAHAN SOSIAL YANG MELANDA MAHASISWA DI YEMEN

Oleh

NASER ABDUL HAFEETH

Febuari 2006

Pengerusi : Haji Othman Bin Dato’ Haji Mohamed, PhD

Fakulti : Pengajian Pendidikan

Masalah seperti pencapaian akademik yang rendah, salah penyesuaian swadiri dan sebagainya, sistem kognitif yang tidak rasional dan gangguan emosi masih belum dikaji puncanya di kalangan pelajar universiti di Yeman. Empat intrumentasi kajian telahpun dipilih dan diedarkan kepada 800 pelajar sebagai subjek persampelan. Walau bagaimanapun, hanya 456 soal selidik instrumentasi dikembalikan dimana n = 456 responden memenuhi saiz persampelan kajian (Cohen, 1988; Othman, 2001).

Kajian keperihalan korelasi ini bertujuan untuk meneroka perhubungan di antara satu set sistem kepercayaan dengan satu set gangguan emosi di kalangan pelajar praijazah di Universiti Taiz di Yemen.

Hasil kajian menunjukkan bahawa set pembolehubah ramalan tentang sistem kepercayaan yang mempunyai kaitan dalam set yang sama dan dengan set pembolehubah tidak bersandar juga berhubungan dengan set yang sama seperti yang telah dibuktikan oleh Analisis Kolerasi Kanonikal (AKK).
Empat kaedah, iaitu Pillai, Hotelling, Wilks dan Kolerasi Kanonikal Roy digunakan bagi meneroka model kanonikal sepenuhnya. Walau bagaimanapun, kajian ini menggunakan Analisis Wilks Lamda \( \lambda \) oleh kerana ianya mempunyai aplikasi yang lebih umum. Model sepenuhnya menunjukkan statistik yang signifikan dengan Wilks Lamda \( \lambda = 0.903 \), F(16, 892.00) = 2.906, \( p < .001 \). Terdapat korelasi \( \rho = 0.25 \) di antara pembolehubah ramalan dengan pembolehubah bersandar. Walau bagaimanapun aras korelasi ini kurang daripada \( \rho = 0.30 \) yang biasanya diperakukan sebagai signifikan bagi analisis korelasi kanonikal. Namun aras yang tidak signifikan ini selari dengan pentaksiran generasi kedua Terapi Rasional Emotif Perlakuan. Model korelasi kanonikal yang kedua telah menunjukkan bahawa sebilangan kepelbagaian demografi tidak bersandar seperti jantina, status perkahwinan, umur dan fakulti juga berkaitan dengan sistem kepercayaan.

Selain itu, perbezaan yang signifikan pelbagai variat ditemui di kalangan pemboleh ubah dalam keperluan untuk diterima, permintaan untuk keselesaan keperluan, keadilan dan kemurungan dengan kegelisahan yang merentas pelajar lelaki dan pelajar perempuan. Perbezaan yang signifikan boleh juga ditemui dalam sistem kepercayaan daripada kepelbagaian demografi yang ditunjukkan seperti tinggi dan rendahnya keherotan kognitif, aliran utama dalam pembelajaran, fakulti, umur dan tahun pengajian.
ACKNOWLEDGMENTS

First and foremost, I would greatly like to express my deepest heartfelt gratitude and thanks to the Almighty Allah for giving me the power and perseverance to strive for perfection in the current investigation. My greatest thanks are also offered to the Prophet Mohammad who is forever a second legitimate source of enlightenment, guidance and knowledge for humanity as a whole.

This thesis could not have been conducted without the participation of many professionals. The first is my supervisor Professor Dr. Haji Othman Bin Dato Haji Mohamed. My study in Malaysia is indebted to him. In addition to his profound knowledge, sensitive understanding, valuable guidance, constructive criticism, encouragement and great patience during the various stages of the current study, his supervision was sincere, accurate, strict, systematic, continuous and important. It is my great pleasure to express that without his efforts and care, the thesis would never have been achieved.

Furthermore, I would deeply like to express my thanks to my committee members, Associate Professor Lily Mastura Haji Harun and Associate Professor Bahaman Bin Abu Samah. In addition to their assistance and guidance during the various stages of the research, their contributions were of great significance and I could not have completed this work without their penetrating scientific insights.

Next, I am honored to extend my sincere gratitude and appreciation to the founders of the Cognitive Perspective; Albert Ellis, Aaron Beck, Michael E. Bernard, and
Raymond DiGiuseppe who granted me the use of their research instrumentations, some studies and valuable encouragement.

The research itself would have been impossible without the cooperation of many professionals and individuals. I would especially like to thank Associate Professor Nadeem Al-Shureay who devoted his efforts in assessing the Arabic and English translation of the research instruments. I would very much like to express my thanks and gratitude for Dr. Pabiyah Hajji Maming in the Department of Arabic Language at the Faculty of Bahasa Modern Languages at UPM who spent her valuable time appraising the Arabic version of the research instruments.

In my journey through the data collection, the significant contributions from Associate Professor Ahamed Al-Ameary and Monear Alsalwy at Taiz University, Muthar Saeed Noman, and Khalid Al-Batol at the Yemeni Embassy in Malaysia were greatly appreciated. My deepest thanks and gratitude goes out to each of them.

It is my pleasure to also acknowledge the many lecturers at Taiz and Sana'a Universities. I would especially like to thank Professor Dr. Ali Mohamed Al-Maklafy, Professor Dr. Mohamed Abdul-Allah Al-Soofi, Professor Dr. Kabeel, Professor Dr. Abbas Al-Soswah, and Associate Professor Abdul-Allah Al-Theafany, Dr. Adnan Al-Sanoy, Dr. Naji Al-Haji, Dr. Abdul Kareem Hassan, Dr. Nabil Sofian, and Dr. Hyder Al-Atar. Finally, it is my pleasure to express my sincere appreciation to all my friends in Malaysia, especially Dr. Abdul Rahman Al-Karbash, Dr. Fasil Al-Shamiry, Dr. Ali Asharfi, Dr. Yahya Humiad and Dr. Fadhel Ali Alsanabani.
I certify that an Examination Committee has met on 21st February 2006 to conduct the final examination of Naser Abdul Hafeeth on his Master of Science thesis entitled "Relationship Between Belief Systems and Emotional Disturbances Among Undergraduate Students in Taiz University, Yemen" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

Habibah Elias, PhD
Professor
Faculti of Educational Studies
Universiti Putra Malaysia
(Chairman)

Halimatun Halaliah Mokhtar, PhD
Associate Professor
Faculti of Educational Studies
Universiti Putra Malaysia
(Internal Examiner)

Rahil Bint Mahyuddin, PhD
Associate Professor
Faculti of Educational Studies
Universiti Putra Malaysia
(Internal Examiner)

Amla hj Mohd Salleh, PhD
Professor
Faculti of Education
Universiti Kebangsaan Malaysia
(External Examiner)

HASANAH MOHD GHAZALI, PhD
Professor/Deputy Dean,
School of Graduate Studies,
Universiti Putra Malaysia.

Date:
This thesis submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Master of Science. The members of the Supervisory Committee are as follows:

Haji Othman Dato' Haji Mohammed, PhD
Professor
Faculty of Educational Studies
Universiti Putra Malaysia
(Chairman)

Lily Mastura Haji Harun, PhD
Associate Professor
Faculty of Educational Studies
Universiti Putra Malaysia
(Member)

Bahaman Abu Samah, PhD
Associate Professor
Faculty of Educational Studies
Universiti Putra Malaysia
(Member)

_______________________
AINI IDERIS, PhD
Professor/Dean
School of Graduate Studies
University Putra Malaysia

Date:
DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

________________________

NASER ABDUL HAFEETH

Date:
TABLE OF CONTENTS

DEDICATION          ii
ABSTRACT          iii
ABSTRACT          v
ACKNOWLEDGMENTS         vii
APPROVAL           x
DECLARATION          xii
LIST OF TABLES                      xix
LIST OF FIGURES                    xxv
LIST OF ABBREVIATION                   xxix

CHAPTERS

I INTRODUCTION        1
Overview         1
Background of the Problem        3
   Irrational Belief Systems      5
   Absolutistic Thinking Processes      9
   Irrationality Dimensions      11
The Problem of Depression with Social Anxiety    12
Background of the Problem in Arabic Culture    14
Statement of the Problem        14
Objectives of the Study       16
Research Questions        17
Null Hypotheses of the Research Questions      20
Framework of Research        23
Definition of Rational and Irrational Beliefs      25
Definition of Cognitive Distortion       27
Definition of Depression        30
Definition of Social Anxiety       33
Significance of the Study       35
Limitation of the Study        37

II LITERATURE REVIEW       39
Introduction         39
First Section        39
   Rational Emotive Behavior Therapy (REBT)      39
   Philosophical and Psychological Foundations of REBT  40
   Nature of Human Being      43
   ABC Model Approach        45
   Theory of Cognitive Therapy      52
   The Cognitive Developmental Model      52
   Automatic Thoughts        54
Cognitive Schemas 55
Schemas Structure 56
Schemas Content 56
Types of Schemas 56
Successful Dealing with Negative Schemas 58
Cognitive Distortion 60
Goals of Cognitive Therapy 65
Second Section 66
Theories of Depression 66
Psychodynamic Theories 66
Traditional Psychodynamic Theory 67
The Self-Focusing Model 67
Cognitive Perspective 68
Cognitive Therapy 68
Cognitive Triad 69
Social Psychological Theories of Depression 72
Perspectives and Models of Social Anxiety 73
Biological Perspective 73
Psychoanalytic Theory of Anxiety 74
Behavioral Perspective of Anxiety 74
Cognitive Model of Social Phobia 75
Third Section 76
Research on REBT 76
Research on Social Phobia 85

III METHODOLOGY 87
Introduction 87
Research Design 87
Labeling Variables 88
The Population 90
Power Analysis and Sample Size 90
Effect Size 92
Effect Size Based on the Pilot Data 92
Sample Size for Pearson Moment Correlation 93
Simple Random Sampling 94
Instrumentations for the Study 95
Measurements of Irrational Beliefs 95
Second-Generation IB Scales 96
1-General Attitude and Belief Scale (GABS) 96
GABS Administration 98
Scoring and Interpretation of GABS 99
2-Dysfunctional Attitudes Scale (DAS) 100
DAS Description 100
Scoring and Interpretation of DAS 101
DAS Reliability and Validity 101
3-Beck's Depression Inventory (BDI) 102
Interpretation of BDI 102
Reliability of BDI 104
Validity of BDI 104
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rationalization of BDI Selection</td>
<td>105</td>
</tr>
<tr>
<td>4-Social Phobia Inventory (SPIN)</td>
<td>105</td>
</tr>
<tr>
<td>Scoring SPIN</td>
<td>106</td>
</tr>
<tr>
<td>Rationalization of SPIN Selection</td>
<td>107</td>
</tr>
<tr>
<td>Translation Procedures</td>
<td>107</td>
</tr>
<tr>
<td>Pilot Study</td>
<td>108</td>
</tr>
<tr>
<td>Data Collection</td>
<td>109</td>
</tr>
<tr>
<td>Statistical Analysis</td>
<td>110</td>
</tr>
<tr>
<td>Calculating the Effect Estimate for Independent-Samples T-test</td>
<td>116</td>
</tr>
<tr>
<td>Calculating the Effect Estimate for One-Way Analysis of Variance</td>
<td>116</td>
</tr>
<tr>
<td>Canonical Correlation Analysis (CCA)</td>
<td>117</td>
</tr>
<tr>
<td>Terminology of Canonical correlation Analysis in the Current Study</td>
<td>120</td>
</tr>
<tr>
<td>Canonical Weights or Canonical Factor Loadings in the Research</td>
<td>123</td>
</tr>
<tr>
<td>Loading Ratio in Structure Correlation and Canonical Weights</td>
<td>126</td>
</tr>
<tr>
<td>Canonical Correlation Analysis in SPSS</td>
<td>126</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IV FINDINGS</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>129</td>
</tr>
<tr>
<td>First Section</td>
<td>130</td>
</tr>
<tr>
<td>Demographic Variables Profile</td>
<td>130</td>
</tr>
<tr>
<td>Normal Distribution for Quantitative Variables</td>
<td>135</td>
</tr>
<tr>
<td>Normal Curve Distribution</td>
<td>135</td>
</tr>
<tr>
<td>Second Section</td>
<td>139</td>
</tr>
<tr>
<td>Research Question (1)</td>
<td>139</td>
</tr>
<tr>
<td>The Extent of Belief Systems</td>
<td>139</td>
</tr>
<tr>
<td>Research Question (2): Assumptions</td>
<td>141</td>
</tr>
<tr>
<td>Research Question (2): Variables</td>
<td>143</td>
</tr>
<tr>
<td>Research Question (2): Marital Status with Belief Systems</td>
<td>143</td>
</tr>
<tr>
<td>Research Question (2): Low and High Cognitive Distortion with Belief Systems</td>
<td>145</td>
</tr>
<tr>
<td>Research Question (2): Type of Study with Belief Systems</td>
<td>148</td>
</tr>
<tr>
<td>Research Question (2): Students' Year of Study with Belief Systems</td>
<td>150</td>
</tr>
<tr>
<td>Research Question (2): Students' Age Category with Belief Systems</td>
<td>160</td>
</tr>
<tr>
<td>Research Question (2): Students' Faculty with Belief Systems</td>
<td>167</td>
</tr>
<tr>
<td>Research Question (3)</td>
<td>174</td>
</tr>
<tr>
<td>Research Question (4)</td>
<td>175</td>
</tr>
<tr>
<td>Research Question (5)</td>
<td>180</td>
</tr>
<tr>
<td>Research Question (6)</td>
<td>185</td>
</tr>
<tr>
<td>Summary of Second Section Results</td>
<td>190</td>
</tr>
<tr>
<td>Third Section</td>
<td>194</td>
</tr>
<tr>
<td>Research Question (7)</td>
<td>194</td>
</tr>
<tr>
<td>Multivariate Analyses of Variance (MANOVA)</td>
<td>194</td>
</tr>
<tr>
<td>Procedure in Multivariate Analyses of Variance</td>
<td>195</td>
</tr>
</tbody>
</table>
Testing Assumptions of MANOVA

1- Cell Sizes 196
2 - Multivariate Normal Distribution 197
3- Linearity and Univariate Normality 199
4- Multicollinearity and Singularity 200
5- Homogeneity of Variance-Covariance Matrices 203

Findings of MANOVA in the research 204

1- Multivariate Tests of Significance 204
2- Levene's Test of Equality of Error Variances 205
3- Tests of Between-Subjects Effects 207
4- Pairwise Comparisons and Estimated Marginal Means 209

Research Question (8) 212

Fourth Section 212

Assumptions for Canonical Correlation Analysis 213

The Findings of Canonical Correlation Analysis 214
Canonical Multivariate Effect Estimate for Full Canonical Model 216
Second Step in Interpretation of Relationships between Synthetic Predictors and Criterions in the Present Study 217
Third Step: Dimension Reduction Analysis 219
Fourth Step: Association Between Synthetic Predictors Set and Synthetic Criterions Set 220
Communality Canonical Coefficients ( ) 225
Canonical Correlation Analysis (2) with Demographic Variables 226
First Step in Canonical Correlation with Demographic Information 226
Canonical Multivariate Effect Estimation for the Full Model 228
Second Step in the Canonical Correlation 228
Final Step of Canonical Correlation 230
Communality Canonical Coefficients ( ) 236

V DISCUSSION 238
Overview 238
Descriptive Analyses 238
Demographic Variables 238
The Prevalence of Belief Systems 239
Inferential Statistics 242
Test of Mean Differences in Belief Systems based on Undergraduate Students' Marital Status 242
Test of Mean Differences in Belief Systems based on Undergraduate Students' Low and High Cognitive Distortion 243
Test of Mean Differences in Belief Systems based on Undergraduate Students' Type of Study 244
Test of Mean Differences in Belief Systems based on Undergraduate Students' Year of Study 246
Test of Mean Differences in Belief Systems based on Undergraduate Students' Age Categories 247
Test of Mean Differences in Belief Systems based on Undergraduate Students’ Faculties 248
The Prevalence of Cognitive Distortion 249
Test of Mean Differences in Cognitive Distortion based on Undergraduate Students’ Marital Status, Type of Study, Year of Study, Age Category and Faculty 250
Test of Mean Differences in Depression based on Undergraduate Students’ Marital Status, Type of Study, Year of Study, Age Category, Faculty and Low and High Cognitive Distortion 251
Test of Mean Differences in Social Anxiety based on Undergraduate Students’ Marital Status, Low and High Cognitive Distortion, Type of Study, Year of Study, Age Category, and Faculty 252
Multivariate Statistics:
Multivariate Analyses of Variance (One-Way) 255
Significant Results in Multivariate Analysis of Variance 256
Non-Significant Results in Multivariate Analysis of Variance 258
Canonical Correlation Analysis (1) 259
The Association between Belief Systems and Depression with Social Anxiety 259
Canonical Correlation Coefficients 262
The Unique Contribution of Each Predictor to Occurring Criterions in Function 1 262
Inter-correlations of Predictors and Criterions in Function 1 264
The Unique Contribution of Each Predictor on Occurring Criterion in Function 2 266
Intercorrelation of Predictors and Criterions in Function 2 267
Communality Coefficients ( ) for Set of Belief Systems with Cognitive Distortion and Depression with Social Anxiety 268
Canonical Correlation Analysis (2) 270
The Association between Belief Systems with Demographic Variables and Depression with Social Anxiety 270
The Unique Contributions of Independent Variables to the Occurring Criterion Variables in Function 1 272
Inter-correlation Coefficients for Predictive Variable in Function 1 273
The Unique Contributions of the Independent Variables to the Occurring Criterion Variables in Function 2 273
Communality Coefficients ( ) for the Set of Belief Systems with Demographic Variables and Depression with Social Anxiety 274

VI CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS 276
Overview 276
Statement of the Problem 276
Research Design 278
Translation Procedures 280
Descriptive Analysis 281
Inferential Statistics
The Prevalence of Belief Systems
Test of Mean Differences in Belief Systems based on Undergraduate Students' Marital Status
Test of Mean Differences in Belief Systems based on Undergraduate Students' Low and High Cognitive Distortion
Test of Mean Differences in Belief Systems based on Undergraduate Students' Type of Study
Test of Mean Differences in Belief Systems based on Undergraduate Students' Year of Study
Test of Mean Differences in Belief Systems based on Undergraduate Students' Age Category
Test of Mean Differences in Belief Systems based on Undergraduate Students' Faculties
The Prevalence of Cognitive Distortion
Test of Mean Differences in Cognitive Distortion based on Undergraduate Students' Marital Status, Type of Study, Year of Study, Age Category and Faculty
Test of Mean Differences in Depression based on Undergraduate Students' Marital Status, Type of Study, Year of Study, Age Category, Faculty and Low and High Cognitive Distortion
Test of Mean Differences in Social Anxiety based on Undergraduate Students' Marital Status, Low and High Cognitive Distortion, Type of Study, Year of Study, Age Category, and Faculty
Multivariate Statistics:
Multivariate Analysis of Variance (One-Way)
Multivariate Statistics
Canonical Correlation Analysis (1)
The Association between Belief Systems and Depression with Social Anxiety
Canonical Correlation Analysis (2) with Demographic Variables
The Association between Belief Systems with Demographic Variables and Depression with Social Anxiety
The Coefficients of CCA with Demographic Variables
Implication of the Study
Theoretical Implications
Practical Implications
Recommendations

BIBLIOGRAPHY
APPENDICES
BIODATA OF THE AUTHOR