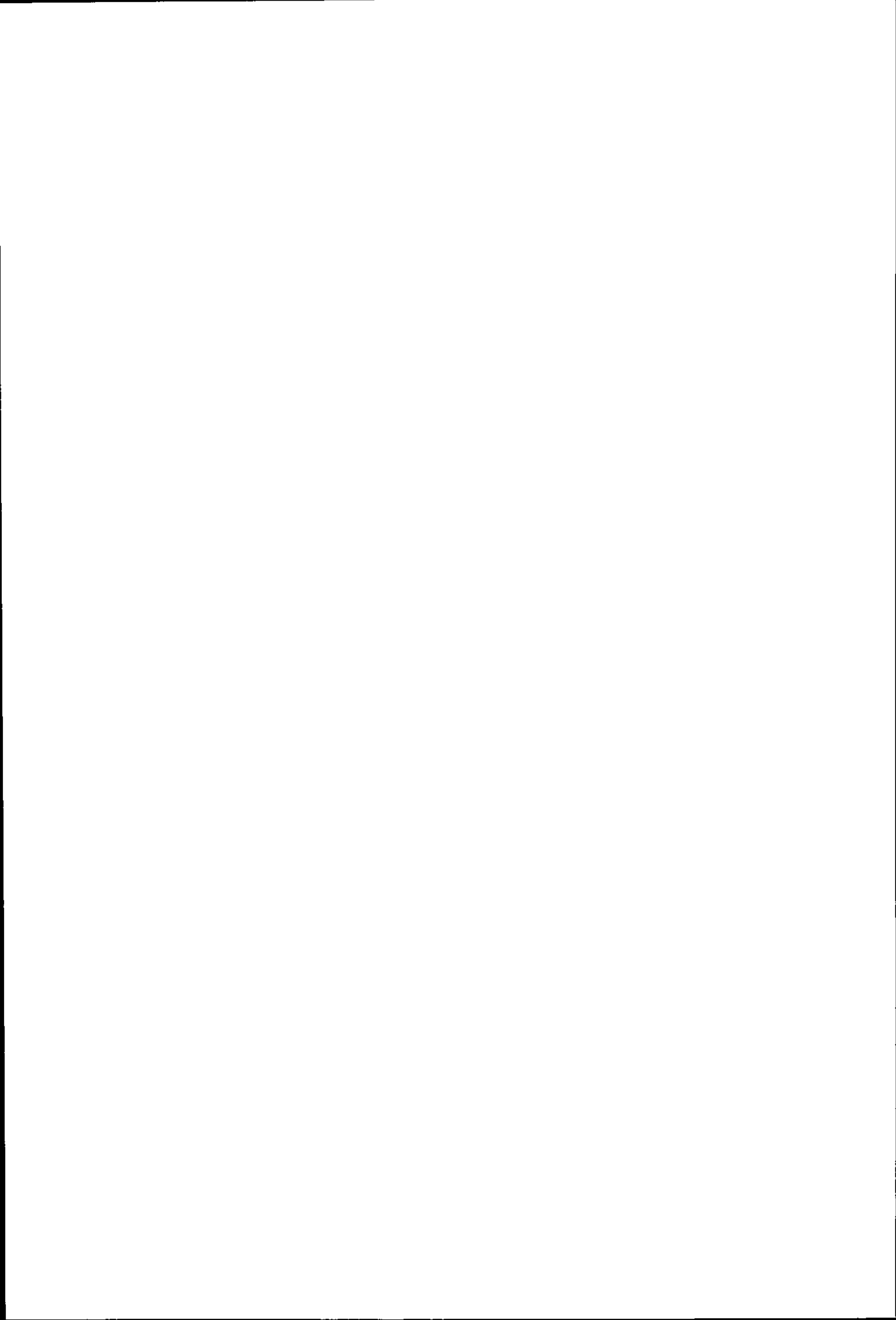
University Library

Author/Filing Title ...... GRIFA, D. ....

Class Mark . T

Please note that fines are charged on ALL overdue items.



EFFECT OF MODE AND AUDIENCE OF EMOTIONAL DISCLOSURE ON CLINICAL DEPRESSION

by

Dhiba S. Grifa

A Doctoral Thesis submitted in partial fulfilment

of the requirements for the award of

Doctor of Philosophy

Department of Social Sciences

Loughborough University

September, 2008

© by Dhiba S. Grifa 2008

Loughborough University
Pilkington Library

Date 26/2/10

Class T

Acc No. 0403819257

I dedicate this work to my small family my husband, Ammar Abugrin and my children Aya, Muhmmed, Asil, Sumer and Sajed who lived with me during each stage of this project

ACKNOWLEDGEMENTS

I want to thank all of the individuals who, without their help, I would not have achieved this project First and foremost, I would like to thank my supervisor, Prof Duncan Cramer, for his supervision, support, guidance and patience His valuable advice and intelligent notes were extremely helpful

As special word of thanks should be directed to Dr Jumma Al-majdob for his unlimited assistances during my whole academic life I will be forever grateful for his support

I like to say thank to Dr Sue Cassou for her aid in proofreading this project

I want also to express my warmest thanks to my dear friends Endash Alfkhee, Fatma Hmoda, Madina Esa, Salem Abu Rawee, Zakia, Jaber Unaloan Chanrungmaneekul for their great assistance

I would like also to express special word of thanks to my best friend Hanaa Farhan Her great assistances during completing this project and our discussion helped me I am eternally grateful for her help and advice

To my parents, a warm word of thanks for their encouragement and support Their belief in, and supplications for me, helped me

I wish to extend my gratitude to the participants of this project, without their help I would not have been able to conduct this study I am really grateful for their aid, great enthusiasm about participating in the study, and honesty in responding to the study instructions and instruments

I also want to thank all of the individuals working in Al-Rahma Clinic and Penie Walid Clinic for doing their best to ensure that this project was conducted smoothly Thank you all very much

To my husband and best friend, I extend my sincere gratitude His love, encouragement, support, and patience helped me through this project I will forever set him deepest in my heart

Last but certainly not least, warm words of thanks go to my children Their love, smiles, belief in me, and efforts to create a warm atmosphere encouraged me to concentrate on my project

CONTENTS

LIST OF TABLES: viii

ABSTRACT xi

1. LITERATURE REVIEW (PART I) 1

Literature Review On Emotional Disclosure 1

1 1 Studies Dealing with the Theoretical Mechanisms of Change Associated with the Disclosure Procedure 8
1 1 1 Inhibition theory 8
1 1 2 Exposure theory 17
1 1 3 The Cognitive model 26
Hypothesis 1 42
1 2 Studies dealing with the impact of the disclosure procedure on depressive symptoms 43
Hypothesis 2 55
1 3 Studies attempting to determine the feature of emotional disclosure that produces the maximum beneficial effects 56
Hypothesis 3 60
3 4 Summary 60

2. LITERATURE REVIEW (PART II) 62

Literature Review On Depression 62
2 1 Prevalence, definition, and symptoms of depression 63
2 1 1 Prevalence of depression 63
2 1 2 Defining Depression 64
2 1 3 Symptoms of depression 64
2 1 3 1 Affective symptoms 64
2 1 3 2 Cognitive symptoms 65
2 1 3 3 Behavioural symptoms 66
2 1 3 4 Physical symptoms 66
2 1 3 5 Anxiety symptoms 67
2 2 Classification of depression 68
2 2 1 Major-Depression 70
2 2 1 1 Melancholia 70
2 2 1 2 Depression with psychotic features 71
2 2 1 3 Atypical Depression 71
2 2 1 4 Recurrent brief depression 71
2 2 2 Dysthymia 72

2 2 3 Other Depressive Types 73
2 2 3 1 Seasonal depression 73
2 2 3 2 Premenstural dysphoric disorder 73
2 2 3 3 Postpartum depression 73
2 3 Co-morbidity in depression 74
2 4 The continuum of depression 76
2 5 Depression Personality Disorder 77
2 6 Assessing depression 78
2 6 1 Methods for assessing the severity of depression in adults 78
2 6 1 1 Self-rating scales 79
2 6 1 1 1 Examples of self-report measures 80
A Measures aimed at assessing depression 80
A 1 Beck Depression Inventory 80
A 2 The Center for Epidemilogical Studies Depression Scale 83
A 3 Zung-Self Rating Depression Scale 86
B Scales of general mood or psychiatric symptomatology 87
B 1 Minnesota Multiphasic Personality Inventory-2 Depression Scale 87
B 2 Costello-Comrey Anxiety and Depression Scale 88
B 3 Millon Clinical Multixial Inventory 88
B 4 The General Behavior Inventory 89
B 5The Inventory to Diagnose Depression 91
2 6 1 2 The interview-based method 92
2 6 1 3 Measures of Depressive Adjectives 94
A 1 The Depression Adjective Check Lists 94
A 2 Symptoms Checklist-90-R 94
A 3 Profile of Mood State 96
2 6 2 Measures for Diagnosing Depression in Adults 97
2 6 2 1 The Schedule for Affective Disorders and Schizophrenia 97
2 6 2 2 Diagnostic Interview Schedule (DIS) 99
2 6 2 3 Structured Clinical Interviews for DSM-IV Axis I Disorders 100
2 7 Psychological Theories of the Causes and Treatment of Clinical Depression 100
2 7 1 Psychoanalytical Theory 100
A The Psychoanalytical Approach of Depression 100
B Psychoanalytic therapy of depression 105
2 7 2 The Behavioural theory 110
A The Behavioural Approach to Depression 110
B Behavioural treatment of depression 113
B 1 Increasing pleasant activities and deceasing unpleasant ones 114
B 2 Reducing the intensity of unpleasant events 114
B 3 Reducing the frequency of unpleasant events 115

B 4 Increasing pleasant activities 117
B 5 Social skills therapy 118
B 6 The coping with depression course 121
2 7 3 Cognitive Theory of Depression 122
2 7 3 1 Beck's cognitive theory 123
A Beck's cognitive theory of depression 123
B Beck's Cognitive therapy for depression 125
2 7 3 2 The learned helplessness model of depression 133
2 7 3 3 The hopelessness theory of depression 136
2 7 3 4 The self-control theory 138
A The self-control theory of depression 138
B Self-control therapy 141
2 7 3 5 The problem-solving theory 143
A The problem-solving theory of depression 143
B Problem-solving therapy 145
2 7 3 6 The self-focus theory of depression 147
2 7 4 The differential activation hypothesis 149
2 8 Depression and stressful life events 155
3. LIBYAN CULTURE 162
3 1 Family feature 163
3 2 Men and women's positions 165
3 3 The traditional view of depression 168
3 4 Religious beliefs 169
3 4 1 Men and women in Islam 169
3 4 2 Religious beliefs and depression 173
3 4 2 1 A belief in destiny 174
3 4 2 2 Viewing suffering from depression as earning expiation 176
3 4 3 Ways of dealing with difficulties 177
3 4 3 1 Supplication (du'a') 177
3 4 3 2 Reading the Qur an 180
3 4 3 3 Praying 181
3 4 3 4 Istighfar 182
A Benefits of istighfar 182
B Times of istighfar 184
C Several examples of istighfar 186
C 1 Master of istighfar 186
C 2 General istighfar 187
3 4 3 5 Reappraisibg depressed experience 187
3 4 4 Depression among Early Muslim Theorists 188
4. OVERVIEW OF THE RATIONAL FOR THE THESIS 190

4 1 The first aim of this study 190
4 2 The second aim of this study 200
4 3 The third aim of this study 204
4 4 Experimental instructions 223
5. METHOD 226
5 1 Design 226
5 2 The Pilot study 227
5 3 Research participants 227
5 4 Dependent Measures 232
5 4 1 The measures that the participants were asked to complete for each wave of data collection contained 233
5 4 1 1 A Self-report Measure(pre-test) 233
5 4 1 2 Beak Depression Inventory BDI (pre-test, post-test, and delayed post-test) 233
5 4 1 3 Cognitive Restructuring Questionnaire (post-test and delayed post-test) 235
Psychometric Properties of the Cognitive Restructuring Questionnaire 236
5 4 1 4 The participants' attitudes questionnaire (post-test) 238
5 4 2 The measures that were completed by several judges included 239
5 4 2 1 Judges' Ratings Questionnaire 239
5 5 Recruitment 240
5 6 Procedure 241
5 6 1 Data Collection Procedure 242
5 6 2 Experimental Instructions 244
5 7 Debriefing 251
6. RESULTS 252
6 1 Checking the Accuracy of the Data Entering 252
6 2 Attrition and Baseline Characteristics 253
6 2 1 Attrition during the during data collection process 253
6 2 1 1 Attrition at post-test 253
6 2 1 2 Attrition at delayed post-test 259
6 2 2 Comparison of Conditions at Baseline 261
6 2 2 1 Depressive symptoms at baseline 261
6 2 2 2 The demographic differences at baseline 262
6 3 Manipulation Check 264
6 4 Overview of the Statistical Analysis 271
6 4 1 Effects of Disclosing Stressful Events on Depressive symptoms 272
6 4 2 Between-Groups Differences in terms of the Effects of Emotional Disclosure on Depressive Symptoms 280
6 4 3 Effects of Disclosing Stressful Events on Cognitive Restructuring 289
6 5 Checking the participants attitudes towards the study 294

6 6 Summary of Assessing the Study Hypotheses 294

7. TRANSCRIPTS ANALYSIS 296

7 1 Supportive condition 296

7 1 A Case1 Most improved case 297

7 2 Challenging condition 305

7 2 A Case 1 Most improved case 306

7 2 B Case 2 Least improved case 310

8. DISCUSSION 318

8 1 Study Hypotheses 319

8 1 1 Hypothesis 1 The impact of emotional disclosure on depressive symptoms 319

8 1 2 Hypothesis 2 Between-Groups Differences in Effects of Emotional Disclosure on Depressive Symptoms 321

8 1 3 Hypothesis 3 Effects of Disclosing Stressful Events on Cognitive Restructuring 328

8 2 Practical Implications 329

8 3 Directions for Future Research 331

Conclusion 334

REFERENCES 337

Arabic References 380

APPENDICES 381

Appendix A Self-report measure (personal information) 381

Appendix B Beck Depression Inventory (BDI-II) 382

Appendix C Cognitive Restructuring Questionnaire 384

Appendix D Participants Attitudes Questionnaire 385

Appendix E Judge Ratings for Participants` Cognitive Restructuring 386

Appendix F Judge Ratings for Manipulation Check 387

Appendix G Informed Consent Form 388

Appendix H Debriefing Sheet 390

LIST OF FIGURES

Figure 4 1· Hypothesized mechanism of change produced by emotional disclosure 192

Figure 6.1 Experimental and Control Conditions on BDI at Pre-test, Post-test, and Delayed Post-Test. 273

Figure 6.2 BDI for Each Condition at Pre-Test, Post-Test and Delayed Post-Test 282

LIST OF TABLES

Table 1-1: Studies of Cognitive Restructuring as Defined by Increasing Causal and Insight Words (Cognitive Words) 28

Table 1-2: Studies of Cognitive Restructuring as Defined by Reduction in Intrusive Thoughts . 36

Table 1-3 Studies of Cognitive Restructuring as Defined by Changing in Attitudes Towards the Self and Stressor . 41

Table 1-4 Studies of Disclosure and Depression 44

Table 5-1 Participation and Attrition by Clinic Recruitment . 229

Table 5-2 Participation and Attrition According to Conditions 230

Table 5-3 Number of Participants Randomly Assigned to the Experimental and Control Groups 232

Table 5-4 Cronbach's Alpha Reliability for Cognitive Restructuring Questionnaire 236

Table 5-5 Difference Between Experimental Conditions and Control Conditions in Cognitive Restructuring 238

Table 5-6 Alpha Reliability for Cognitive Restructuring Questionnaire 238

Table 5-7 Alpha Reliability for the Judge Ratings 240

Table 6-1 Attrition by Demographic Characteristics and BDI-II Score at Session Two 254

Table 6-2 Illustrates attrition by demographic characteristics and BDI-II score at session three 256

Table 6-3 Attrition by Demographic Characteristics and BDI-II Score at Post-Test 258

Table 6-4 Attrition by Demographic Characteristics and BDI-II Scores 260

Table 6-5 The Means and Standard Deviation for The BDI-II at Baselin 262

Table 6-6 The Means and Standard Deviation for Participants' Age and Education Level at Baseline 263

Table 6-7 Interrater Reliability for Each of The Three Sessions 264

Table 6-8 Summary of variance assessing differences in a listener's behaviour between talking to a supportive listener conditions and talking to a challenging listener conditions . 266

Table 6-9 T-Test for the differences in the feedback between listener in experimental and control conditions 268

Table 6-10 Means and Standard Deviations for BDI for Experimental and Control Conditions at Pre-Test, Post-Test, and Delayed Post-Test 273

Table 6-11 Summary of Variance for the impact of the experimental manipulation on the depressive symptoms 275

Table 6-12 unrelated T-Test for the Differences Between Experimental and Control Conditions on BDI at Pre-Test, Post-Test, and Delayed Post-Test 276

Table 6-13 related t-test for the Differences in BDI Between Pre-Test and Post-Test, Pre-Test and Delayed Post-Test, and Post-Test and Delayed Post-Test for Experimental and Control Conditions 278

Table 6-14 Means and Standard Deviations on BDI for Each Condition at Pre-Test, Post-Test and Delayed Post-Test 281

Table 6-15 Summary of A Mixed ANOVA for The Between- Groups Differences in BDI 284

Table 6-16 Summary of Variance for Each Condition on BDI 285

Table 6-17 The factor structure of the BDI for the study sample 291

ABSTRACT

Numerous studies has shown that disclosing stress-related thoughts and feelings diminishes the negative impacts of stressful events and improves health These studies, however, do not determine sufficiently the mechanisms whereby emotional disclosure produces these effects Further, most of these studies have utilized psychologically healthy participants In particular, there have been no studies involving clinically depressed participants Moreover, previous research has not investigated features of emotional disclosure that enhance health outcomes and facilitate underling mechanisms and most of this research even demonstrates serious methodological problems Therefore, the aims of the current study are to determine the possible explanation for the effects of emotional disclosure on depressive symptoms, whether emotional disclosure is effective for participants who virtually depressed, and the features of emotional disclosure that produce the maximum reduction of depressive symptoms These aims were translated into the following hypotheses The first of these hypotheses examined whether emotional disclosure is effective for participants who are clinically depressed The second hypothesis addressed whether there would be associations between depressive symptoms and cognitive restructuring The final hypothesis investigated whether disclosing orally to a challenging listener would be the most effective feature to act as the dependent variable These hypotheses were examined in 99 clinically depressed patients at post-test and in 95 at delayed post-test The participants were assigned to one of the four experimental conditions (disclosing orally to a tape recorder N=12, disclosing via writing N=14, disclosing to a challenging listener N=13, disclosing to a supportive listener N=11) or the four control conditions (trivial talking

to a supportive listener N=11, trivial talking to a tape recorder N=11, casual writing N=11, trivial talking to a challenging listener N=12) The participants completed the Beck Depression Inventory BDI at pre-test, immediately after the intervention and four weeks following the third disclosure session, and also completed a questionnaire developed in the current study to measure cognitive restructuring at post-test and four weeks following the intervention The participants talked or wrote, according to their condition, for 20 minutes over three consecutive sessions On the first day of the experiment, the researcher instructed the participants in the experimental conditions to disclose upsetting experiences that related to their past In the second session, the researcher told the experimental participants to disclose upsetting experiences that related to their present On the third day, the researcher asked the experimental participants to disclose upsetting experiences that related to either their past or their present, regardless of whether they disclosed it or not the participants in the control conditions talked or wrote about assigned trivial topics As hypothesized, the results indicate that the participants in the experimental conditions showed a reduction in their depressive symptoms over time relative to those in the control conditions Cognitive restructuring, as predicted, was negatively associated with depressive symptoms Finally, contrary to expectations, disclosing orally to a supportive listener produced the greatest beneficial effects on depressive symptoms Suggestions for future research were made to further our understanding of how emotional disclosure works, and the practical implications were also highlighted

CHAPTER 1

LITERATURE REVIEW (PART I)

Literature Review On Emotional Disclosure

The idea that concealing troubled feelings has a painful effect on psychological health has long been considered as a reason for psychological disorders, whereas revealing them can be healthy (Breuer, & Freud, 1958, Grinker & Spiegel, 1978, Scheef, 2000) In recent years, Pennebaker (1997) proposed a theory of inhibition to explain the process by which failure to confront stressful events impacts on health negatively

In this theory, Pennebaker proposed that not talking about troublesome feelings is a type of inhibition Yet, the inhibition of behaviour, thoughts and feelings requires physiological work When this happens over a long period of time place escalating stress on the body, it leads to the likelihood of stress-related diseases However, disclosing these feelings might result in an improvement in health outcomes

Based on this notion, Pennebaker has assumed that (1) individuals who have not confided about stressful events with others will experience more health problems than if they do so Moreover, childhood trauma is more related to illness than recent trauma, (2) there is an association between inhibition and skin conductance (SC),

and disclosing upsetting experiences leads to a decrease in skin conductance level, whereas not confronting the trauma correlates with increases in skin conductance levels, (3) since disclosing stressful events results in a better understanding of these events, the failure to disclose stressful events will be associated with increasing ruminations about them, and (4) asking individuals to disclose childhood traumas produces improvements in health and a decrease in rumination

According to Pennebaker's paradigm, the participants have been brought into a laboratory and assigned randomly to two or more groups the experimental group and the control group The participants assigned to the experimental group have been asked to write down or speak into a tape recorder or to a listener (who can be a researcher or a therapist) as many details they can about their deepest thoughts and feelings surrounding a past or current stressful event The sessions ranged from three to five consecutive days to sessions separated over a week The participants in the control group were asked to write about innocuous topics (e g , how they use their time)

A series of studies applying this paradigm has investigated the differences between the control and experimental groups across a variety of dependent variables, including physiological outcomes (as measured by physician visits, physiological markers and self-reports), psychological outcomes (as measured by self-reports), and behavioural changes (as measured by behavioural markers) over a number of months, ranging from six weeks to sixteen months Studies examining the effects of emotional disclosure on physiological outcomes have found that participants disclosing stressful-related thoughts and feelings show the greatest improvements in health For instance, the participants assigned to the experimental group show fewer health center visits after the experiment compared with before it

(e g , Greenberg & Stone,1992, Greenberg, Wortman, & Stone,1996, Pennebaker, Barger, & Tiebout,1989, Pennebaker & Beal, 1986, Pennebaker, Colder, & Sharp,1990, Pennebaker & Francis, 1996, Pennebaker, Kiecolt-Glaser, & Glaser,1988) Depending on physiological makers, experimental participants enjoy an enhanced long-term immune function, including t-helper cell response to phytohemagglutinin (e g Pennebaker *et al*, 1988), antibody response to Epstein-Barr virus (e g , Esterling, Antoni, Fletcher, Margulies, & Schneideman, 1994), and response to hepatitis B vaccinations (e g , Pettie, Booth, Pennebaker, Davison, & Thomas, 1995), neutral killer cell activity (e g , Christensen *et al*, 1996) Emotional disclosure also resulted in alterations in autonomic activity and muscular activity, such as skin conductance (e g , Pennebaker *et al*, 1989, Pennebaker, Hughes, & O'Heeron, 1987, Petrie *et al*, 1995), heart rate (e g , Pennebaker, *et al*, 1987), and corrugator activity (e g , Pennebaker *et al*, 1987) Self-reports also show that participants' disclosure of upsetting experiences reduced their physical symptoms (e g , Greenberg & Stone, 1992, Pennebaker & Beal, 1986)

Similarly, in a number of studies, disclosing stressful events has been found to lead to long-term improvements on psychological outcome measures, for example, decreased levels of depression (e g , Austenfeld, Paolo, & Stanton, 2006, Broderick, Junghaenel, & Schwartz, 2005, Graf, Gaudiano,& Geller,2008, Lang, Schoutrop, Schrieken, & Van de Ven, 2003, Lepore, 1997, Magai, Consedine, Fiori & King,2009, Schoutrop, Lange, Hanewald, Davidovich, & Salmon, 2002, Sloan & Marks, 2004a, Sloan, Marks, & Epstein, 2005, Solano, Donati, Pecci, Persichetti, Colaci, 2003), anxiety (e g , Magai,2009; Reynolds, Brewin, & Saxton, 2000), insomnia (e g , Sheffield, Thomson, Johal, 2002), and posttraumatic stress disorder (PTSD) (e g , Sloan & Marx, 2004a) Studies have also found a beneficial influence on certain

behavioural markers, such as an increased grade point average (e g , Pennbaker *et al*, 1990, Pennebaker, & Francis, 1996), and a decrease in absenteeism from work (e g , Francis & Pennebaker, 1992)

Pennebaker (1997) reported that the writing paradigm is powerful Although, participants assigned to experimental group often report crying or feeling upset immediately after writing, the vast majority report that the disclosure was worthwhile and meaningful for them Among studies employing the basic paradigm, Pennbaker (1997) notes that the most common topics within experimental groups are break-up with boyfriend/girlfriend, death, incidents of sexual and physical abuse and major failure Although the writing protocol asks participants to write or talk about personal traumatic experiences, there are numerous investigators that have extended topics of disclosure to involve positive experiences (e g , Burton & King,2004) or a common experience between participants, such as going to college (e g , Pennebaker *et al*, 1990) and their disease (de Moor *et al*, 2001)

Meta-analysis findings

To determine whether emotional disclosure is truly effective, several meta-analysis have been conducted The first effort was conducted by Smyth (1998) who carried out 13 written disclosure studies employing healthy participants, and found that emotional disclosure, whether via writing or talking, results in significantly improved physical health, psychological well-being, physiological functioning and general functioning The strongest effect sizes are for the physiological (d= 68) and psychological outcomes (d= 66) than the health (d= 42) and general function outcomes (d= 33) Further, Smyth has found that there were several factors that moderated the impact of written emotional expression on health Some of these

factors were utilizing students as participants, gender, experimental instructions, and duration of the manipulation Emotional disclosure has been found to have (1) more effects on psychological outcomes when using students than non students, (2) more effects on males, (3) more effects on well-being outcomes when participants were instructed to write about current events than when they were told to write about any trauma (past or current), and (4) more effects on physiological outcomes when participants were instructed to write about any trauma (past or current) than when they instructed to write about only past traumas Further, the number and length of the writing sessions have been found to be unrelated to the improvements produced by emotional disclosure

Another research synthesis was conducted by Frisina, Bord, and Lepore (2004) This meta-analysis involved nine studies utilizing medical and psychiatric populations The medical population included those with terminal renal cancer, prostate cancer, asthma and rheumatoid arthritis, and breast cancer, while the psychiatric population involved people suffering from posttraumatic stress disorder, those with severe depression and suicidal thoughts, and psychiatric prison inmates Their findings indicate that written disclosure produces improvements in physical and psychological health (d= 19) However, this impact is stronger on physical (d= 21) than on psychological (d= 07) health outcomes

Other meta-analysis work was conducted by Harris (2006) This meta-analysis specifically examined the impact of writing about upsetting experience on health care utilization In this meta-analysis, Harris found that written disclosure leads to reduction in health care utilization among healthy samples However, this meta-analysis failed to find a significant impact of expressive writing on health care utilization for medical samples and prescreened samples for some psychological

problems (such as stress or trauma)

There has also been another meta-analysis conducted by (Frattaroli, 2006) In agreement with previous meta-analyses, the findings from this work also support the effectiveness of emotional disclosure This meta-analysis included 146 studies, and the findings from this research synthesis revealed that emotional disclosure is a beneficial intervention, with an effect size of 075 for all measures in those studies Further, it has been found that there was a mean unweighted effect size of 056 for psychological health measures in 112 studies and 073 for depression in 27 studies Several variables have been found to moderate the relationship between emotional disclosure and reported health, subjective impact, psychological health, and overall effect The health effect size is larger when the study involves participants who are physically unhealthy, offers longer disclosure sessions, and the participants disclose more recent stressors The subjective impact effect size is larger when the participants are paid for their participation The psychological effect size is larger when participants disclose at home, are given more privacy, the data for the post-test is collected within a month, the participants disclose more recent stressful events, and the participants are given directed questions or examples of what to disclose The overall effect size is larger when the participants are given greater privacy, the post-test data is collected within a month, longer sessions are offered for disclosure, and the participants disclose more recent stressors, Moreover, the findings from this meta-analysis indicated that there are a number of variables that were not related to effect size, such as psychological health selection criteria (whether participants needed to be psychologically unhealthy to participate), trauma history selection criteria, utilizing college students, age of participant, participant ethnic background, participant education level, pre-disclosure priming (warning participants in advance

that they might disclose stressful events), arranging disclosure task over separate sessions, negativeness of the disclosed event, focus of disclosure instructions (instructions aimed at enhancing cognitive change or insight), time reference of disclosure instructions, feature of disclosure (hand writing, typing, or oral disclosure) and number of participants, audience of disclosure (hearing or reading what have been disclosed)

Despite the importance of studies employing Pennebaker's paradgim in providing evidence supporting the assumption that expressing stress-related thoughts and feelings improves psychological and physical health, several important questions have been left without adequate answers Most notable is what is the theoretical mechanism that accounts for the outcomes resulting from the disclosure procedure? In addition, is the disclosure procedure strong enough to improve psychological health in individuals who are helping seekers? Further, which feature of the disclosure procedure produces the most beneficial effects? Since the concern of this project is to try to find precise answers to these questions, this review of the literature aims to identify studies that have tried to address these same issues Accordingly, this chapter is divided into four categories Firstly, the chapter begins by reviewing studies that have examined the possible underlying mechanisms that have suggested to explain the beneficial effects of emotional disclosure on physical and psychological health Next, the chapter will review the literature investigating the impact of the disclosure procedure on depressive symptoms Then, studies investigating the mode of disclosure that may produce the best beneficial outcomes will be reviewed Finally, the general hypotheses for the present study will be outlined

1.1 Studies Dealing with the Theoretical Mechanisms of Change Associated with the Disclosure Procedure

The first disclosure procedure research was guided by Pennebaker`s theory of inhibition, as mentioned in chapter 1 Even though there has been some evidence to support this theory, some researchers have failed to find support for the inhibition theory as a possible explanation for understanding why this procedure seems to lead to physical and psychological gains This has led investigators to propose alternative explanations to account for the efficacy of this phenomenon The supportive and converse findings to inhibition theory will be reviewed below, followed by a review of the alternative theories about the emotional disclosure-health relationship

1.1.1 Inhibition theory

Even though there has been several studies providing evidence supporting inhibition theory, other studies that were considered to provide evidence in support of this theory scarcely examined its basic assumptions Thus, it is impossible to regard these studies as evidence enhancing this theory Other studies that have tried to seek evidence to support the inhibition theory suffer from several limitations and so cannot be acknowledged as such There follows a description of these studies and their limitations

Several studies have not followed Pennebaker`s standard paradigm, yet are considered to provide evidence supporting this theory For instance, Pennebaker and Susman (1988) conducted surveys in which a series of questionnaires was completed by two samples The first involved employees and the second the spouses of sudden death The employees' sample findings showed that childhood

traumatic experiences, those never talked about, are closely associated with current health problems, both major (e.g., cancer, high blood pressure) and minor (e.g., weight loss and skin rashes). Further, it has been found that early childhood traumatic experiences were more closely related to current health problems than were recent traumas. The findings from the widows' sample indicate that recent traumas that were held back are associated with increased health problems and rumination about the traumas. However, despite the researchers' claim that these findings provide evidence enhancing the inhibition theory, the findings from this study may not represent real evidence for this theory for several reasons. Firstly, the current health problems found among the unconfided trauma condition may refer to other factors (such as daily habits, e.g., smoking, eating junk food) rather than holding back childhood traumas. Without controlling such factors between the participants in the childhood traumatic experiences condition and those in the recent traumas condition, it may be impossible to state that childhood traumatic experiences, which are kept as a personal secret, are closely associated with current health problems, as the investigators claimed. Further, the researchers did not provide the mean age or standard deviation of the participants in the early trauma condition and those in the recent trauma condition (they just provided the mean age for the participants in all conditions, which was 35.1). Their definition of early trauma is that that occurred prior to the age of 17, and recent trauma was that that occurred within the last three years. Thus, it is unclear how many participants really had early traumas in the early trauma condition and how many participants really had recent trauma in the recent trauma condition. Also, what about participants who are aged nineteen and had experienced trauma in the last three years? Was their trauma considered to be early or recent? Moreover, contrary to inhibition theory (that

assumes that childhood trauma is particularly related to illness), recent traumas that were not discussed are linked to health problems

Another line of research producing evidence consistent with the inhibition theory (although it did not apply Pennebaker's standard paradigm) was a study by Cohen, Tyrrell, and Smith (1991), in which the participants were exposed to cold viruses through the nose Only participants who reported a higher level of stress before infection developed cold symptoms compared to those participants who did not

Further, Cohen and Williamson (1991) reviewed studies dealing with the relationship between stress and health problems The investigator reported that there is considerable evidence to show that increased stress results in health problems

In trying to seek evidence that supports the inhibition theory, Pennebaker *et al* (1989) partially followed the standard paradigm when they compared participants who showed high personal disclosure (reduction in skin conductance level, SCL, was considered to be an indicator of high disclosure) with those who showed low personal disclosure The researchers found that there is a positive correlation between the degree of talking about a traumatic experience - related feelings and thoughts - and the ensuing health outcomes at approximately fourteen months after disclosing these feelings and thoughts However, this study suffers from several problems Firstly, the age variable was not controlled between the high and low disclosure conditions, although the age range of the sample was 57-84 Thus, these differences in visiting a physician for illness may be attributed to the differences in the participants ages rather than the level of disclosure, since older individuals may experience more health problems than younger individuals Moreover, there was no control condition against disclosure conditions to control for the non-specific impacts

of talking and time passing

Additionally, there has been a series of studies completed by Pennbaker and his co-workers utilizing Pennebaker's standard paradigm that also provide evidence supporting the inhibition theory Pennbaker and Beal (1986) were among the first to find support for the inhibition-confrontation model In that, the participants assigned to the discloser condition showed greater improvements in terms of their mood and health compared to those participants assigned to the control condition Based on these findings, the researchers stated that inhibition is associated with lower psychological and physical health outcomes, whereas disclosure is associated with higher ones

Despite the importance of these findings in providing evidence consistent with the assumption that expressing stress-related thoughts and feelings improves psychological and physical health, this study may not provide evidence promoting inhibition theory, as the researchers claimed Firstly, the study was not designed in a way that examines some of the inhibition theory's hypotheses The participants in the experimental condition were not instructed to disclose upsetting experiences from their past (as inhibition theory assumes) Instead, they were asked to disclose their upsetting experiences in their entry life Therefore, it is unclear whether the participants disclosed their early life traumatic experiences or more recent ones Moreover, contrary to the inhibition theory, the participants in the disclosure conditions experienced higher blood pressure and negative moods following disclosure whereas they should have experienced improvements in their health and a positive mood after venting Further, the statements reported by the participants in the disclosure conditions (e g , "It helped me think about what I felt", I had to think and resolve past experience", "It made me think a little deeper about some of the

important parts of my life") seem to reflect cognitive change rather than catharsis

Another research utilizing the standard paradigm that aimed to provide more support for the relationship between inhibition and physiological impairment conducted by Pennebaker *et al* (1987) In this research, Pennebaker and his assistances conducted two studies to investigate the impact of disclosing stressful events on autonomic activities In the first study, the participants talked about trivial topics and disclosed their upsetting experiences into a tape recorder, while in the second study, half of participants talked about trivial topics and disclosed their upsetting experience into a tape recorder and the other half talked about these topics and experiences to a silent listener who was behind a curtain The findings from both studies showed that participants in the high discloser conditions (who disclosed extremely stressful events as rated by judges) exhibited a drop in skin conductance relative to those participants in the low disclosers' conditions Further, the findings from the first study showed that the participants in the high disclosure condition demonstrated an increase in their cardiovascular activity compared to those in the low disclosure condition However, (as noted in previous study) the participants in these studies were asked to disclose the most traumatic events in their lives Thus, it is unclear whether the participants disclosed past events (as intended, according to inhibition theory) or not Furthermore, the method that was applied by the researchers to assign participants to high disclosure or low discloser conditions has been criticized by several researchers (e g , Greenberg & Stone, 1992) This criticism indicates the absence of randomness in assigning participants to high and low disclosure conditions, which means that there may have been a condition self-selection bias

Moreover, since the criterion that was used to distinguish high disclosure from

low disclosure in both studies is the severity of the event that the participants experienced, these benefits obtained from disclosure may not refer to the depth of the disclosure Instead, they may refer to the extent that the individuals are psychologically healthy, as there has been considerable research linking depression with stressful life events (e g , Billings & Moose, 1982, Lloyd, 1980, Paykel, 1979) Thus, it is possible that the lower the individuals' psychologically health, they more benefit they will gain from the disclosure procedure

Another study conducted by Pennebaker *et al* (1988) was aimed at seeking evidence to support inhibition theory, particularly to see whether disclosing upsetting events decreases the negative effects of inhibition on physiological health The findings revealed that the participants who disclosed previously held back events (high disclosure) showed improvements in terms of their immunological response compared to the low disclosure and control participants Further, relative to low disclosers, high disclosers exhibited a greater reduction in their systolic and diastolic blood pressure However, as in Pennebaker and Beal (1986) and Pennebaker *et al* (1987) (1) Pennebaker *et al* (1988) did not instruct the participants in the experimental condition to disclose past stressful events, but rather to disclose upsetting events of their entire life, (2) the participants in the disclosure condition also showed greater levels of physical symptoms and negative moods after disclosure compared to those in the control condition, and (3) the participants were not classified as high or low disclosure randomly Therefore, this study had similar limitations to the others

Further evidence that has been considered to be supportive of inhibition theory emerged from a study conducted by Esterling *et al* (1994) The researchers found that disclosing troublesome feelings through writing leads to lower titers of antibodies

against the Epstein-Barr virus (EBV), indicating better immune functioning However, like the studies mentioned above, this study did not examine inhibition theory's basic assumptions For instance, the participants in this study were not asked to disclose past stressful events in order to enable inhibition theory to be tested Moreover, there has been no evidence that the changes in inhibition resulting from the written disclosure leads to these physiological benefits (Pennebaker & Susman, 1988, Sloan & Marx, 2004b)

Further supportive evidence for inhibition theory is the findings from Petri *et al*'s study (1995), who found that the participants in the disclosure group demonstrated higher antibody levels against hepatitis B compared to those participants who wrote about superficial events However, this study also suffered from several problems Firstly, the participants in the experimental condition were not matched with those in the control condition in several variables that have been found to influence the immune level after vaccination, such as alcohol consumption (e g , Burns, Carroll, Ring, Harrison, & Drayson, 2002, Gluckman, Dvorak, MacGregor, 1977,Steptoe, Lipsey, & Wardle, 1998), smoking, (e g , MacKenzie, MacKenzie, Holt, 1976), stressful life events (e g , Burns *et al*, 2002, Steptoe *et al*, 1998, Workman, & La Via, 1987) and coping style (e g , Burns *et al*, 2002, Workman, & La Via, 1987) Thus, it is impossible to determine whether these differences between the experimental condition and control condition in terms of antibody levels against hepatitis B refer to the intervention or to the differences in those variables Further, despite the researchers` claim that these findings provide evidence to enhance the hypothesis that the inhibition of troubled feelings develops illness, whereas discharging these feelings improve one s health, there has been no evidence that a reduction in inhibition mediates this relationship (Pennebaker & Susman, 1988, Sloan & Marx,

2004b) Furthermore, contrary to inhibition theory, the participants in the experimental condition reported higher levels of physical symptoms and negative moods immediately following disclosure relative to those in the control condition Like other studies testing inhibition theory, Petri *et al* (1995) did not ask their participants in the experimental condition to disclose past upsetting experience, but instead asked them to disclose upsetting experience in their life Therefore, it is impossible to report that the findings of this study confirm inhibition theory

As noted above, the majority of studies considered to be evidence supporting emotion inhibition theory were not designed to test this theory's basic assumptions In fact, there have been studies providing evidence that refutes these assumptions For instance, contrary to the assumption that inhibition and the related stressor result from long-inhibited trauma, Pennebaker *et al* (1990) found that undergraduate students who disclosed their feelings and thoughts related to starting university (a current event) exhibit improvements in their psychological and physical health compared to the control group participants Moreover, it has been found that disclosing past upsetting experience did not lead to beneficial impacts (e g , Batten, Follette, & Palm, 2002) Additionally, Smyth (1998), in her meta-analysis, also found that disclosing current or past stressful events is more beneficial than disclosing only past ones Similarly, Frattaroli`s meta-analysis (2006) found that disclosing recent stressful events has greater beneficial effects Further, Greenberg and Stone (1992) found that disclosing upsetting events that have been kept secret is as effective as disclosing upsetting events that have been discussed with others These findings contradict the other assumption of inhibition theory, that observed outcomes are produced specifically from the initial disclosure Furthermore, according to inhibition theory, the participants disclosing stressful material should experience an increase in

positive mood and a decrease in negative mood as a result of venting these troublesome feelings Indeed, there is evidence to the contrary, since the participants who wrote or talked into a tape recorder about their upsetting experiences showed an increase in their negative emotions and a decline in their positive emotions from the pre- to post-session periods (Segal & Murray, 1994) Further, those participants who wrote about their stressful experiences showed a less positive effect and a greater negative one and physical symptoms immediately following writing relative to those in the control condition, who wrote about natural topics (Schwartz & Drotar, 2004) Similarly, Burton and King (2008) found that participants who disclosed stressful material demonstrated lower positive affect than those in control condition who wrote about trivial events Cohen, Sander, Slavin and Lumley (2008) also found that participants who wrote about facts and emotions related to stressful events showed greater increase in negative affect than participants in a control condition who wrote about natural topics It should be noted that participants wrote for 30 minutes over one session Yogo and Fujihara (2008) found that participants disclosed stressful events reported an increase in their hostility and physical symptoms Further, Ferna´ndez and Pa´ez (2008) found that participants who wrote about their thoughts and feelings related to terrorist attacks did not differ in their positive affect from those wrote about neutral topics following the intervention and they even showed an increase in their emotional activation

Furthermore, a meta-analysis by Frattaroli (2006) did not provide much support to inhibition theory Since it has been found that disclosing recent traumatic experiences was positively associated to effect size Further,studies asked participants to disclose undisclosed stressful events were not better than studies did not do so Also, objective and self-report measures of stress response have not been

found to be significant in a random and a fixed effects model

Additionally, Pennebaker and Francis (1996) stated that "no successful attempts have found strong links between inhibition-related autonomic changes and long-term health or behavioural improvements" (page 602) These findings from Greenberg and Stone (1992) and Pennebaker *et al* (1990) have led Pennebaker (1997) himself to replace his original inhibition theory with the assumption that cognitive and linguistic changes facilitate positive changes in health

Generally speaking, the emotional inhibition theory has not met much acceptance as an explanation for the emotional disclosure-health relationship, and this has led investigators to propose alternative underling mechanisms for the functional change produced by this procedure

1.1.2 Exposure theory

An alternative explanation of the beneficial effects of disclosing stressful events on health has indicated the importance of exposure, that plays a crucial role in fear reduction, in the expressive writing process Foa and Kozak (1986) have observed that a successful treatment by utilizing exposure is a product of a set of responses that follows a curvilinear pattern The participants initially experience an intense negative emotional response that increases gradually, but repeated exposure to fear-arousing stimulus results in a habituation to feared situations, that leads to a reduction in the reactions to the feared object over time As noticed above, this idea is consistent with the findings from several studies investigating the impact of disclosing stressful events on health (e g , Greenberg & Stone, 1992, Pennebaker & Beal, 1986, Pennebaker *et al*, 1988,Petri *et al*'s study,1995) These findings indicate

that, following disclosing their upsetting experiences, the participants in the disclosure conditions showed greater negative moods and physical symptoms compared with those in the control conditions This has led several investigators (e g , Bootzin,1997 , Kloss & Lisman, 2002 , Lepore, 1997 , Lepore & Greenberg, 2002 , Sloan & Marx, 2004a) to consider emotional disclosure as content for exposure in which writing essays results in the extinction of negative emotional associations through repeated exposure to aversive stimuli This repeated exposure, occurring through several writing sessions, habituates individuals to the aversive emotions associated with their upsetting experience, which, ultimately, results in health improvements

Examining the exposure theory requires the testing of the following hypotheses (1) emotional arousal, to see whether the participants in the disclosure condition show an increase in physiological reactions, such as heart rate and skin conductance, during the first session of emotional disclosure and whether these physiological reactions are related positively to the observed outcomes of the emotional disclosure, (2) habituation within sessions, to see whether there would be reductions in these physiological reactions and reported anxiety among the experimental condition during the disclosure sessions These reductions would be greater in participants who benefit more from emotional disclosure than those benefiting less, (3) habituation over sessions, to see whether there would be decline in the physiological reactions and reported anxiety over sessions and whether habituation over sessions related to disclosure outcomes among disclosers, and (4) whether individuals who disclosed the same events in the same general way across disclosure sessions would obtain greater benefits from emotional disclosure than those who disclosed different events at each session

Empirical tests of these hypotheses are mixed and even some of them provide evidence that contradicts the exposure model Sloan and Marx (2004a) found partial support for the exposure model In their study, the researchers compared writing about stressful events (that could be different for each writing session) with writing about superficial topics The findings indicated that the disclosure participants showed greater emotional arousal (as measured by salivary cortisol, and unpleasantness and arousal ratings) during the first session relative to the participants in the control condition Further, it has been found that, for the disclosure condition, the physiological activation that occurred as a response to the first session is associated with reductions in depressive symptoms and PTSD symptoms (but not physical symptoms) at follow-up Despite the strength of this study in providing evidence that enhances some of the exposure model` s hypotheses, this study has several limitations Firstly, there has been lack of reporting several outcomes For instance, the researchers considered the null differences between the control condition and the disclosure condition in the second and third sessions in physiological reactivity to be evidence for the reduction in physiological activation across sessions However, it is unclear from this indication whether or not the participants in the experimental condition demonstrated a reduction in salivary cortical from the first to the last session, as the researchers hypothesized Further, although the participants in experimental condition showed greater emotional arousal (as measured by unpleasantness and arousal ratings) to the first disclosure session compared to those in the control condition, it was not mentioned whether there were differences between the two conditions in their ratings for the remaining two disclosure sessions Additionally, it has not been mentioned whether there was relationship between increased emotional arousal (as measured by unpleasantness

and arousal ratings) and depressive symptoms and post-traumatic symptoms (PTDS), as the researches anticipated Since several outcomes were not reported, selective reporting bias may have occurred The second limitation is that the exposure model has not been fully tested in Sloan and Marx's study, since habituation (as reflected in reductions in emotional activation) within sessions was not examined

Other study providing evidence to support the exposure model has been conducted by Sloan *et al* (2005) In their study, the researchers followed the same procedure utilized in Sloan and Marx` study (2004a) with the difference that they compared participants who disclosed the same events during each writing session with those who disclosed different events along with the participants who wrote about trivial topics Sloan and his colleagues found that the participants in the disclosure conditions exhibited greater physiological activation in response to the first and second sessions relative to those in control conditions Further, the two disclosure conditions showed a reduction in physiological activation from the first to the second sessions Moreover, the participants in the disclosure conditions demonstrated more valence and arousal than those in the control condition Additionally, for the repeated disclosure condition, a reduction in PTSD was related to that physiological activation that occurred in the first session Also, for this condition, a reduction in valence and arousal from the first to the second sessions was associated with a reduction in PTSD and depressive symptoms However, this study did not fully test the exposure model and even provides evidence against the exposure model's hypotheses As Sloan and Marx's (2004a) study shows, in this study, habituation within sessions was not examined for both measures of activation (physiological activation and emotional reactions) Furthermore, contrary to the exposure model, it has been found that there

is no difference in habituation between writing about the same stressful event each session and writing about different events Thus, disclosing the same event over disclosure sessions does not augment nor does disclosing different events diminish exposure In addition, according to the exposure model, individuals who benefit more from emotional disclosure would show greater reductions in activation within and across sessions than individuals who benefit less from emotional disclosure However, the findings from this study found that there is no differences in habituation over sessions between the participants who benefit from the disclosure procedure and those do not Additionally, although the participants who disclosed different stressful events each session show a habituation to the stressor-related aversive emotions across sessions, they do not obtain benefits from the disclosure procedure Since there has been no indication of whether participants disclosed their stressor in the same general way or dealt with different aspects of the same stressor in each writing session, this raises the possibility that disclosing the same upsetting events each session may make the discloser realize new aspects of the stressor and analysis it more deeply, which, ultimately, may lead to a modification of the discloser`s perspective of the stressor Highlighting this assumption, Campbell and Pennbaker`s study (2003) found that the participants in the disclosure conditions who changed their perspective from session to session over the disclosure course are most likely to obtain benefits from the disclosure

Further support for the exposure model as the underling mechanism for the emotional disclosure outcomes emerged from a study conducted by Sloan *et al* (2007) In their study, the researchers compared the impact of writing about the same stressful event by focusing on emotions and feelings (EE), with writing about the same stressful event by focusing on insight and cognitive assimilation (ICA)

along with writing about a different trivial topic on psychological (depressive and posttraumatic symptoms) and physical health The findings revealed that the participants assigned to the EE condition showed the greatest increase in HR in response to the first session, reduction in HR from the first to the third session, valence and arousal in response to the first session, and reduction in valence and arousal from the first to the last session. Further, the participants in the EE condition exhibited a greater reduction in their depressive symptoms, PTSD symptoms and physical health complaints relative to participants in the ICA and those in the control condition However, although this study provides evidence supporting some of the exposure model hypotheses, it provides also evidence that is incompatible with this model Firstly, although the participants in the ICA condition demonstrated a habituation to the aversive stressor-related emotions (as suggested by a greater reduction in HR and valence and arousal from the first session to the last session relative to those in the control condition) and experienced greater arousal in response to the first session (as indicated by their greater valence and arousal in response to the first session), compared to the participants in the control condition, there were no differences between the participants in the ICA and control conditions in terms of their depressive symptoms, PTSD symptoms and physical health complaints Secondly, there was no relationship between initial activation (as measured by increasing HR, and valence and arousal) and improvements in depressive, PTSD, and physical symptoms Further, there was no relationship between a reduction in HR and a decline in depressive, PTSD, and physical symptoms Moreover, there was no relationship between a reduction in valence and arousal and improvements in depressive and physical symptoms

On the other hand, there have been several studies that have failed to provide

evidence supporting the exposure model For instance, Kelley, Lumley, and Leisen (1997) compared the impact of talking about upsetting experiences with describing pictures as the control condition on pain, physical and affective dysfunction, and joint condition The participants were patients with rheumatoid arthritis The findings revealed that, although the participants in the disclosure condition, reported an increase in negative mood from the pre- to post-intervention during each session, the emotional disclosure had no effect on the health measures after two weeks

Even though Ferna´ndez and Pa´ez (2008) found that participants who wrote about their thoughts and feelings related to terrorist attacks showed emotional activation following the intervention, there was no difference in their emotional activation from those who wrote about neutral topics

Kloss and Lisman (2002) compared writing about natural topics and positive events, along with writing about upsetting experiences The findings revealed that the participants in the disclosing stressful events condition showed the greatest increase in the state of anxiety after each session However, the measured state of anxiety at the beginning of each session continued at the same level as that on starting the session on each of the three days of disclosure This indicates that the state of anxiety did not decrease within nor across sessions Furthermore, Kloss and Lisman (2002) compared participants who disclosed the same stressful events each a writing session with those who disclosed different troubled events each session in terms of their anxiety ratings The findings indicated that both groups demonstrated comparable levels of states of anxiety before the writing task in each of the three sessions

Some of these findings from Kloos and Lisman`s study have been supported by the findings of Segal and Murray (1994), who compared changes in negative and

positive emotions from pre- to post- each session and from session to session The findings revealed that the participants who wrote or talked into a tape recorder about their upsetting experiences showed an increase in their negative emotions and a decline in their positive emotions after the disclosure sessions

The findings from Greenberg and Stone (1992) also present evidence to oppose the exposure model According to the habituation argument, the more disclosing upsetting experience, the more its aversive emotions become habituated, and more beneficial effects will be obtained accordingly In contrast, disclosing secret events would lead to fewer opportunities to habituate, which, in turn, resulted in less benefits Contrary to this argument, Greenberg and Stone (1992) found that disclosing stressful events that had been previously revealed is as beneficial as disclosing such events that have been kept as a personal secret

Another refutation to one of the exposure's basic hypotheses regarding disclosing the same event versus disclosing different events over disclosure sessions emerges from a study conducted by Campbell and Pennbaker (2003) The scholars re-analysed three previous studies conducted by Pennebaker and his co-workers utilizing Latent Semantic Analysis (LSA) The researchers aimed at determining whether or not improvements in health for the disclosure conditions were related to the writing content LSA revealed that the similarity in the content of writing was unrelated to health improvements, and, even, the more similar the writing content from the first day to the last day, the less the health outcomes improved

In support of Campbell and Pennebaker's findings (2003), Lumley and Provenzano (2003) found that, in spite of increasing the grade point, the averages were correlated with a reduction in negative mood (for participants in the disclosure condition who showed a reduction in negative mood), and an increase in negative

mood was correlated with poor grade point averages (for participants in the disclosure condition who showed an increase in negative mood), the majority of participants wrote about different upsetting experiences across the four days of disclosure instead of disclosing one repeated experience

Other evidence supporting Campbell and Pennebaker (2003) emerges from a study by Guastella, and Dadds (2008) The investigators found that participants who wrote about the same stressful events over three sessions during three weeks did not differ from those in the control condition in terms of psychological health measured by DASS-21

There has also been a number of studies (e g , Batten *et al*, 2002, de Moor *et al*, 2002, Stroebe *et al*, 2002) that have instructed the participants to disclose the same stressful events during the disclosure sessions However, those studies found that emotional disclosure has null effects on the health measures

Schwartz and Drotar`s study (2004) also provided evidence that was incompatible with some of the exposure model`s hypotheses Although the participants in the disclosure condition demonstrated an increase in the negative effects following writing, the participants did not report a greater increase in negative mood during the first session than in consequent sessions Indeed, and contrary to the habituation argument, the greatest increase in negative mood occurred in the second session

To sum up, the exposure model has not been supported adequately as a possible explanation for the changes produced by the disclosure procedure Several reasons may account for this shortage of support Firstly, the disclosure procedure may not work on similar principles as exposing someone to a feared stimulus For instance, there has been an indication that, although there is an increase in short-

term stress following writing about stressful events, this increase is unrelated to the later benefits of the disclosure procedure (King & Miner, 2000, Smith, 1998) Further, although emotional activation, produced in response to first revealing, has been observed in many disclosure studies, there have been another studies that did not report these reactions, despite the beneficial effects that resulted from the disclosure procedure (e g , Pennebaker & Francis, 1996) Additionally, a duration of disclosure sessions of less than 45-90 minutes was considered to be a necessary condition leading to emotional habituation (Baikie & Wilhelm, 2005)

Secondly, a reduction in emotional activation may not refer to the habituation to the stressor-related aversive emotions, instead, it may refer to alterations in viewing the stressor per se The statements reported by the participants in the disclosure conditions in studies conducted by Pennebaker and his colleagues (e g , Pennbekar, 1993, Pennebaker and Beal, 1986) bolster this notion This notion also finds support in the psychotherapy literature, since Beak *et al* (1979) state that, for individuals to obtain improvements from psychotherapy, they must show a change in their way of thinking Moreover, to reduce the feared responses, the re-evaluation of a feared stimulus may be needed Foa and Kozak (1986) reported that, based on clinical observations, facing a feared stimulus leads to changing its meaning

Thirdly, health improvements that have been linked to emotional activation in the first session may not refer to confrontation with troubled feelings, instead, they may refer to another factor, such as cognitive restructuring

1.1.3 The Cognitive model

Another explanation, that has been proposed to account for the efficacy of disclosing stressful events, has pointed to the critical role of cognitive restructuring Scholars

adopting this theory have viewed cognitive change from different perspectives Accordingly, empirical tests of the assumptions related to this model have differed between studies Penebeker and Francis (1996), for example, indicate that cognitive changes can be reflected by several categories of words For instance, analysing the cause and meaning of an experience can lead to the use of words such as because, reason, cause, while attempting to understand it can result in using words that reflect insight (e g , realise, understand, reconsider) Based on this, Pennebaker has defined cognitive change as follows

> "as the use of words in two general text dimensions self-reflective thinking and causal thinking The self -reflection category includes words such as realize, understand, think, and consider The causal thinking category includes words such as cause, effect, reason, and because (Pennebaker *et al*, 1997, p846)

Thus, it is hypothesized that participants showing an increase in the usage of insight or causal words on the last session compared with the first session would exhibit health improvements Several studies have been conducted to test this hypothesis Initially, investigators relied upon independent raters analysing the content of the assignments produced by the participants in order to determine the proportion of insight and causal words used in these assignments Yet, due to the lower reliability of inter-judges, Pennebaker and his colleagues (1997) developed the Linguistic Inquiry and Word Count (LIWC) that presents a computer program for text analysis Studies investigating the impact of disclosing upsetting experience on the use of insight and causal words and the relation of this usage with health improvements have showed mixed results (see Table 1-1)

Table 1-1
Studies of Cognitive Restructuring as Defined by Increasing Causal and Insight Words (Cognitive Words)

Study	Findings
Batten (2002)	Increase in cognitive words was related to increasing physical symptoms and psychological distress
Chung (2008)	Increase in cognitive words
de Moor (2002)	Increase in cognitive words for experimental condition that did not benefit from emotional disclosure
Klein (2001)	Increasing cognitive this increase related to greater improvements in WM
Lepore (1997)	Increase cognitive was not related to reduction depression
Mackenzie (2008)	Increase in cognitive words did not predict improvements In physical and psychological health and distress
Middendorp (2008)	Cognitive words predicted improvement in psychologica- well after a week but not after three months, cognitive words did not predicate improvement in disease activity
Pennebaker (1993)	Increasing cognitive words
Pennebaker (1996)	Using cognitive words was associated with long-term health improvements
Pennebaker (1997)	Using insight and causal words was associated with health improvements but not psychological health
Petrie (1998)	Increasing cognitive words, these increases were related to improvement in health and immune measures for disclosure no suppression condition
Warner (2006)	Increase in cognitive words for experimental condition that did not benefit from emotional disclosure regarding negative affect and lung function, increase cognitive words did not predict decrease in internalizing behaviour problems or increase in positive affect

Pennebaker (1993) was among the first to analyse the content of essays generated by disclosure participants. In this study, Pennebaker combined the findings from experimental participants in three previous studies conducted by himself and Pennebaker and his colleagues. According to a composite outcome measure (such as immune function, reduction in health centre visits, increase in grades, and self-reports regarding the overall value of the study), the participants were divided into two categories: the top and bottom thirds. The bottom-third participants had composite outcomes that equal the control participants' composite outcomes. An analysis by LIWC revealed that, in the first session, there were no differences between the participants in the top-third, who benefited most from the disclosure procedure, and those in the bottom-third regarding their usage of insight words (e.g., realize, understand, thought, knew) and causal words (e.g., because, why, reason). However, the participants in the top-third showed an increase in their use of insight and causal words over the writing sessions, indicating that they gained insights across the course of the disclosure, whereas the participants in the bottom-third used insight and causal words in consistent rates over time. Further, the participants in the top-third seemed more focused over time. They exhibited a reduction in the proportion of different words used in each essay, suggesting that they started with a scattered content and gradually focused on a single topic. The findings from the computer analysis are substantiated by the judges' ratings of the essays. The ratings by the judges indicated that there were no differences between the top-third and the bottom-third in terms of their acceptance of the experiences they wrote about, nor the overall organization of the essays. However, these ratings demonstrated striking differences in the changes over time. The participants in the top-third showed increasing organization, acceptance, and optimism, whereas the

participants in the bottom-third started their writing with clearly organized stories and gradually showed a deterioration in their writing

Another study provided support for the linkage between the increasing use of insight and casual words and health improvements, conducted by Pennebaker and Francis (1996) In their study, the researchers compared the essays produced by the participants in the experimental condition with those produced by the participants in the control condition By utilizing LIWC and the judges' ratings, the findings showed that using insight and causal words within and over essays was associated with long term health improvements, since, the more the disclosure participants increased their usage of insight and causal words, the more they showed health improvements

In attempting to seek evidence supporting the hypothesis that the increasing use of insight and casual words mediate the relationship between emotional disclosure and health improvements, Pennebaker *et al* (1997) conducted two studies In the first, the researchers reanalyzed data from six previous studies using LIWC and judges' ratings Consistent with the findings of Pennebaker (1993) and Pennebaker and Francis (1996), the findings indicated that the increased use of insight and causal words was related to improved health However, this association did not exist between the increasing use of these words and psychological health

Further evidence supporting cognitive change theory, as defined by Pennebaker (1997), comes from a study conducted by Petrie *et al* (1998) In this study, Petrie and his colleagues compared the percentage of insight and casual words used in disclosing stressful events with thought suppression with disclosing stressful events without thought suppression along with writing about trivial topics with thought suppression, and writing about trivial topics without thought suppression Further, the scholars calculated the correlation between the proportion

of using these words and long-term health improvements The findings from this study demonstrated that the participants in the experimental conditions produced essays involving more words reflecting causality and insight than the control conditions In addition, the essays generated by participants in the disclosure no suppression condition reflected a positive correlation between the increasing rate of insight and causal words and long-term improvements in health behaviour and immune measures, whereas the participants in the disclosure suppression condition produced essays that reflected a negative relationship between using insight and causal words and long-term measurements of health

Klein and Boals` study (2001) also provides evidence enhancing the crucial role of cognitive change (as reflected in the increasing use of insight and casual words) as an explanation for why emotional disclosure works In their study, the scholars compared the impact of writing about coming to college-related thoughts and feelings on available working memory (WM) capacity In the following seven weeks, the participants in the disclosure condition showed greater use of insight and causal words than those in the control condition Further, the increase in using insight and causal words was related to greater WM improvements

Chung and Pennebaker (2008) also reported findings supporting the cognitive model proposed by Pennebaker The researchers found that participants in disclosure conditions who wrote for 15 minutes over three sessions separated by 10-min break (1-hour condition), 35-min break (3-hour condition), or 24-hour break (3-day condition), exhibited an increase in their use of cognitive words compared to participants in control conditions

A study by Middendorp and Geenen (2008) provided partial evidence supporting the cognitive model assumed by Pennebaker Participants who were

patients with rheumatoid arthritis talked about meaningful emotional experiences for 15 minutes during four weekly sessions Although the researchers found that the usage of cognitive words predicted improvements in psychological well-being in the week following emotional disclosure, these findings were not replicated after three months following the intervention Moreover, cognitive word use did not predict change in disease activity that was measured by Rheumatoid Arthritis Disease Activity Index (RADAI) However, the lack of a control condition makes it impossible to report whether this prediction found after one week following the intervention refers to the intervention per se or to other factors It should be noted that the investigators did not mention whether participants talked alone or to a listener

On the other hand, several researchers have failed to find support for cognitive restructuring as conceptualized by the increasing usage of insight and causal words across disclosure sessions For instance, Pennebaker *et al* (1997) conducted a study aimed specifically at investigating the relationship between the increasing use of insight and causal words and long-term psychological health In this study, men who had lost their partners to AIDS were interviewed twice within a month after the death of their partners The participants` transcripts were analyzed with the computerized text analysis program Contrary to Pennebaker` s cognitive theory, there was a negative correlation between the increased use of insight and causal words in the second session and positive states of mind at follow-up, while the other psychological measures (such as depression, impact of the event, positive morale, ruminations) did not correlate with a greater usage of these words

Lepore`s study (1997) also did not find any evidence enhancing the cognitive theory reflected in linguistic change, since, although the participants in the experimental condition showed a greater use of insight and causal words relative to

those in the control condition, the increase in these words was not correlated to the reduction in depressive symptoms

The other study that failed to find evidence to support the association between the greater use of insight and causal words (that resulted from written disclosure) and improvements in psychological and physical health, and even provided evidence to the contrary, was that by Batten *et al* (2002) In their study, Batten and his colleagues compared the effect of writing about child sexual abuse experiences with writing about superficial topics, on psychological and physical health Although the participants in the experimental condition showed a greater use of insight and causal words than those in the control condition, this increase in using these words was related to increasing physical symptoms and general psychological distress

de Moor *et al* (2002) also provided evidence against the relationship between the increasing usage of insight and causal words and health improvements de Moor and his colleagues found that, although there was a difference between the assignments produced by participants who wrote about their cancer and assignments produced by participants who wrote about an assigned trivial topic regarding their usage of causal and insight words, the two conditions did not differ in terms of the symptoms of distress, perceived stress, and mood disturbance (tension-anxiety, depression-dejection, anger-hostility, fatigue, and confusion-bewilderment)

Further evidence contradicting the cognitive model was provided by Mackenzie Wiprzycka , Hasher and Goldstein (2008) The investigators have found that an increase in the use of cause and insight words did not predict improvements in distress, and physical and mental health

In a study conducted by Warner *et al* (2006), although the participants in the disclosure condition (who were adolescents with asthma) showed a higher

percentage of using insight and causal words than those in the control condition, in addition to increasing their usage of these words across the disclosure sessions, there was no impact from emotional disclosure on the negative effect and lung function Further, the increasing use of causal words did not predict a decrease in the internalizing behavior problems as rated by the participants themselves nor the increasing usage of insight words predicted to increase through the positive affect at follow-up Additionally, written disclosure led to improvements in asthma symptoms and functional disability only for those participants who reported high symptoms of asthma and functional disability at baseline

In short, there has been inconsistent support for cognitive theory as defined by changes in the language used to describe one's stressor Several explanations may account for this inconsistency One explanation indicates the method that has been employed to provide evidence supporting this theory This method is mainly based on correlational relationships, hence, it is likely that linguistic changes in describing one`s stressor are result from another mechanism instead of being a mechanism per se (Sloan & Marx, 2004 b) Pennebaker and Francis (1996) highlight this notion when they report that "The analysis of language, then, may merely reflect important cognitive and emotional processes rather than necessarily influencing the underlying processes" (page,624) Thus, it is plausible that changes in language may be an indicator of or consequence of changes in one's perceptions that resulted from engaging in the disclosure task Another explanation may justify these mixed findings in testing cognitive restructuring as reflected in the greater use of insight and causal words, which refers to the approach used in measuring this change in cognition This approach, based on account wording, has been judged to lack accuracy (Lepore, Greenberg, & Smyth, 2003)

Other researchers, who stress the importance of cognitive restructuring as a mediator in the relationship between emotional disclosure and produced outcomes, have viewed cognitive restructuring as an alteration in the frequency of intrusive thoughts Horowitz (1982) has defined intrusive thoughts as "a general stress response tendency" (page, 712) It has been hypothesized that intrusions are a consequence of the incomplete assimilation processing of information from stressful events (Lepore, 1997) From this perspective, intrusive thoughts are the result of the mental struggle involved in cognitively absorbing stressful events-related information that opposes one's pre-existing schemas and objectives It has been suggested that the cognitive integrating of stressful experiences can lead to a decline in intrusive thoughts, and may even eradicate them (Horowitz, 1982, Lepore *et al*, 2003) The difference between this approach and that proposed by Pennbaker is how intrusive thoughts influence the relation between disclosing stressful events and psychological stress From Pennbaker's point of view, emotional disclosure facilitates adjustment to the stressor by decreasing the frequency of intrusive thoughts, while Lepore (1997) assumed that emotional expression reduces psychological stress by diminishing the effects of intrusive thoughts

Studies investigating the role of intrusive thoughts as mediators between emotional expression and improved health have found mixed results (see Table 1-2)

Table 1-2
Studies of Cognitive Restructuring as Defined by Reduction in Intrusive Thoughts

Study	Measure	Findings
Baikie (2008)	IES-R	No impact on intrusive thoughts
de Moore (2002)	IES	No difference between experimental and control condition conditions
Guastella (2008)	IES	No differences between participants in the control condition and participants who wrote about the same, devaluations of their stressors, and benefits from their stressors Participants in exposure condition showed more reduction in intrusive thoughts than control condition but difference between the two conditions psychological health
Klein (2001)	IES	Reporting reduction in intrusive thoughts
Lepore (1997)	IES and developed measure	No impact on intrusive thoughts
Lepore (2002)	IES	No impact on intrusive thoughts
Lugendorf (1994)	IES	No relation between reduction in intrusive thoughts and Epstein-Barr virus and titres changes
Park (2002)	IES	Reduction in intrusive thoughts and no benefits reported
Stroebe (2002)	IES	No difference between experimental and control conditions
Swanbon (2008)	IES	No impact on intrusive thoughts
Zakowski (2004)	IES	No impact on intrusive thoughts

For instance, Klein and Boals (2001) compared writing about stressful events with writing about positive events along with writing about trivial topics, on working memory The findings indicate that the participants who disclose stressful events reported a reduction in intrusive thoughts (as measured by the Impact of Event Scale IES, developed by Horowitz, Wilner, and Alvarez, (1979) than those who wrote about positive and trivial events

On the other hand, several investigators failed to replicate these findings For example, Lutgendorf, Antoni, Kumar, and Schneiderman (1994) compared the impact of talking about upsetting events with a no talking control condition on immune (as measured by IgG antibody titers to the Epstein-Barr virus viral capsid antigen EBV-VCA) function The researchers found that there was no relation between a reduction in intrusive thoughts as measured by IES (that is developed by Horowitz, Wilner, and Alvarez, 1979) and Epstein-Barr Virus (EBV) and titres changes

Lepore (1997) also found no evidence to support the role of the reduction of intrusive thoughts as a mediator of the relationship between emotional disclosure and the observed outcomes, since writing about exam-related thoughts and feelings did not affect intrusive thoughts as measured by IES (developed by Horowitz, Wilner, and Alvarez, 1979, and that developed by Lepore *et al*, 1996)

Further, de Moor *et al* (2002) found that there were no differences between participants wrote about their cancer-related thoughts and feelings and those wrote about superficial topics in terms of their intrusive thoughts, as measured by IES (by Horowitz, Wilner, and Alvarez, 1979)

In line with these findings, Lepore and Greenberg (2002) found that writing about thoughts and feelings related to a relationship break-up did not impact on the intrusive thoughts measured by IES (developed by Horowitz, Wilner, and Alvarez,

1979)

Further evidence that is incompatible with the role of intrusive thoughts as a mediator in the relationship between emotional disclosure and improved health emerged from a study conducted by Park and Blumberg (2002) The researchers found that, although participants who wrote about traumatic events showed a decline in their intrusive thoughts (measured by IFS developed by Horowitz, Wilner, & Avarez, 1979) at follow-up, the participants did not report benefit changes in their emotional and physical health measures at this time Moreover, since these changes in intrusive thoughts were calculated for the experimental condition only, it is unclear whether or not these changes resulted from the intervention

Like those studies, a study by Stroebe, Stroebe, Schut, Zech, and Van den, (2002) found no evidence that disclosing stressful events can lead to a reduction in intrusive thoughts as measured by IES (developed by Brom & Kleber, 1985, and that developed by Horowitz, Wilner, and Alvarez, 1979), since bereaved participants who wrote about their feelings and emotions, the problems that they have had to cope with, or both their feelings and emotions and problems, did not differ in terms of their intrusive thoughts from those in the no writing control condition

Zakowski, Ramati, Morton, Johenson, and Flanigan (2004) also failed to find support for the role of intrusive thoughts as a mediator in the relationship between emotional disclosure and its observed outcomes, since writing about cancer-related emotions did not affect the intrusive thoughts

Baikie and McIlwain (2008) found that participants who wrote about stressful experiences did not show reductions in their intrusive thoughts as measured by IES-R

Guastella, and Dadds (2008) found that participants who wrote about the same

upsetting experiences (exposure condition), perceived benefits from their upsetting experiences (benefit-finding condition), or their devaluation of their upsetting experiences once a week over three weeks did not differ from those in a control condition Moreover, participants in an exposure condition who showed more reduction in their intrusive thoughts compared to those in a control condition did not differ in their psychological health measured by DASS-21 from participants in a control condition

Swanbon, Boyce and Greenberg (2008) also did not find support for the beneficial impact of emotional disclosure on intrusive thoughts Gay men who wrote for 20 minutes during six sessions about their thoughts and feelings related to being gay did not experience reduction in their intrusive thoughts measured by the Impact of Event Scale (IES)

Moreover, the method that has been utilized to measure changes in intrusive thoughts that are assumed to reflect cognitive restructuring has been criticized by several researchers (e g , Lepore, *et al*, 2003) This has been regarded as an indirect method for measuring cognitive restructuring resulting from emotional disclosure This stresses the need to find a more precise and sensitive approach for measuring cognitive restructuring

Additionally, as mentioned above, the investigators adopting this approach to viewing cognitive restructuring have suggested that a reduction in intrusive thoughts results from the success in integrating traumatic experience cognitively Since this integration requires changes in the individuals` schema or interpretations of stressful information (Hamilton, 1982, Honos-Webb *et al*, 2002, Mandler, 1982, Taylor, 1983), one could assume that a reduction in intrusive thoughts may be an indicator of alterations in one`s perspective about the stressor or his/her response to it

Accordingly, it may be more worthwhile to investigate changes in perspective than measuring changes in intrusive thoughts Further, the idea that emotional disclosure procedure facilitate integration of a stressful experience into one's self-schema has not received adequate support For instance, Frattaroli (2006) has found that instructing participants to disclose their upsetting experiences in way that facilitates specifically cognitive change and insight was not associated with higher effect sizes Further, the researcher has found that studies with sessions spaced one week apart had similar effect sizes to studies that gave participants general instructions

Another definition proposed for cognitive restructuring as a mediator in the relationship between emotional disclosure and its outcomes has emphasized the changes in the discloser`s attitudes towards his/her stressor and him/herself Studies investigating this impact of emotional disclosure on attitudes have produced conflicting findings (see Table 1-3)

Table 1-3
Studies of Cognitive Restructuring as Defined by Changing in Attitudes Towards the Self and stressor

Study	Findings
Lepore (2002)	No impact on attitudes about the topic and the self
Donnelly (1991)	Feeling more positive about the stressor and the self
Murray (1989)	No difference between control and experimental conditions in their feelings towards the topic
Murray (1994)	Feeling more positive about the stressor and the self, no difference between control and experimental conditions in feeling negative about the topics, participant in experimental condition felt worse about themselves than those in control condition

For example, Donnelly and Murray (1991) asked the participants to rate how far the disclosure procedure had changed their attitudes towards the topic that they

wrote about and themselves (e g , feeling more positive about the topic and themselves, feeling better about the event and themselves) The findings indicated that the participants who wrote about troubling events reported more cognitive changes compared to those in the control condition However, applying an instrument of unknown reliability to measure those changes in attitudes may limit our ability to draw conclusions regarding the impact of emotional disclosure on one`s attitudes

In partial support of the impact of emotional disclosure on attitudes towards the topic and themselves, Murray and Segal (1994) compared the ratings reported by the participants who wrote about stressful events with those of participants who talked about these events These ratings from the participants in the two experimental conditions were compared with the ratings reported by the participants in the two control conditions, where the participants were instructed to write or talk about trivial topics The participants who wrote or talked about stressful events reported more positive feelings about their topic and better feelings about themselves relative to the participants who wrote or talked about superficial topics However, there were no differences between the participants in the experimental conditions and those in the control conditions regarding feeling more negative about their topics, and the participants in the disclosure conditions even felt worse towards themselves than did the participants in the control conditions

On the other hand, other researchers did not find support for the effect of emotional disclosure on attitudes towards the event and the self For example, Murray , Lamnin, and Carver (1989) did not find differences between the ratings regarding their feelings towards the topic reported by the participants who wrote about upsetting experiences and the ratings reported by those in the control

condition who wrote about assigned, superficial topics Lepore and Greenberg (2002) compared the participants' attitudes about their ex-partner (e g , resentment towards an ex-partner, caring for an ex-partner) and themselves (e g , guilt) both before the disclosure course and following it The findings revealed that there was no influence of written disclosure on changing the participants' attitudes about their ex-partner or themselves

In summary, investigators examining the impact of emotional disclosure on one's attitudes about the event and the self have not provided consistent support Several reasons may account for these mixed results One reason may refer to the unreliable instruments that have been utilized to measure alterations in these attitudes in several studies Other possible reason is that these changes in attitude may be a consequence of changes in evaluating the event that may lead to changing or modifying the discloser's perception about the event or his/her response to it

Hypothesis 1:

As can be seen from reviewing the literature, the existing research does not provide a definitive suggestion about the underling mechanism whereby the disclosure procedure results in improvements to health Thus, this study sought to fill this gap in the literature by aiming to test the following hypothesis

There would be a significant negative relationship between participants scores on BDI and participants' scores on the cognitive restructuring questionnaire

1.2 Studies dealing with the impact of the disclosure procedure on depressive symptoms.

A limited number of studies has examined the impact of the disclosure procedure on psychological health in general and on depression in particular (see Table 1-4) In addition to this limited number of studies, they have showed mixed results Next, the research findings that have provided evidence supporting or contradicting this effectiveness will be reviewed Then, hypothesis based on this review will be stated

Table 1-4
Studies of Disclosure and Depression

Study	Participant type	Conditions Being Compared	Measure	Findings
Austenfeld (2006)	Students	Writing about stressful thoughts and feelings related to clinical clerkship, future goals, and trivial topics	CES-D	Less depression
Batten (2002)	Healthy participants	Writing about child sexual abuse with writing about trivial topics	BDI-II	Experimental condition did not experience positive change, while control condition showed reduction in depression
Baikie (2008)	Students	Writing about traumatic events with writing about trivial topics	TSC-40	*No impact on depression
Broderick (2005)	Fibromyalgia patient	Writing about traumatic events with writing about trivial topics	BDI	Less depression
Corter (2008)	Students	Writing about stressful events in one of three conditions that differed by setting and the delivery of writing instructions	BDI-II(short form)	No impact on depression
de Moore (2002)	Cancer patient	Writing about cancer with writing about trivial topics	POMS	**No difference between experimental and control condition
Graf (2008)	Psychologically disordered patient	Writing about traumatic events with trivial topics	DASS	Less depression

*No impact indicates to the findings of the comparison between pre intervention with post intervention for an experimental condition
**No difference between an experimental and a control condition indicates to the findings of the comparison between the impact of emotional disclosure on an experimental and a control conditions regarding depressive symptoms

Table 1-4 (continuous)
Studies of Disclosure and Depression

Study	Participant type	Conditions Being Compared	Measure	Findings
Jennifer (2008)	Students	Writing about traumatic events best possible self, and trivial topics	CES-D	No difference between experimental and control conditions
loss and Lisman (2002)	Students	Writing about traumatic events, about trivial topics, and positive events	BDI-II	No difference between experimental and control conditions
Gidron (1996)	Post trauma patient	Writing about traumatic events with writing about trivial topics	BDI	No difference between experimental and control conditions
Gortner (2006)	Students	Writing about thoughts and feelings related to stressor , with time management	BDI-II	No impact on depression after five weeks Following six months, high on suppression were less depressed
Lepore (1997)	Students	Writing about stressful thoughts and feelings related to taking examination or trivial topics	Subscale of the SCL-90-R	Less depression
Lepore (2002)	Students	Writing about a relationship break-up with writing about impersonal topics	POMS-SF	No impact on depresion
Lewis (2005)	Lesbian	Writing about thoughts and feelings related to being lesbian, and trivial topics	POMS	No impact on depression
Meads (2003)	Meta-analysis			No difference between experimental and control conditions
Magi (2009)	Healthy participants	Writing about sad events, sad and happy events, and trivial topics	BSI	Less depression for African American participants Yet no impact for European American participants

Table 1-4 (continuous)
Studies of Disclosure and Depression

Study	Participant type	Conditions Being Compared	Measure	Findings
Pennebaker (1988)	Students	Writing about traumatic events with writing about trivial topics	Self-report questionnaire	No difference between experimental and control conditions
Reynolds (2000)	School children	Writing about traumatic events with writing about trivial topics and no writing condition	Birleson Depression Inventory	No impact on depression
Robin (1999)	Renal disease patient	Talking about problems related to dialysis, talking about successful adjustment to dialysis, and viewing videotapes about adjustment with dialysis	CES-D	No impact on depression
Schwartz (2004)	Caregivers	Writing about traumatic events with writing about trivial topics	MASQ	No difference between experimental and control conditions
Sloan (2004a)	Students	Writing about traumatic events with writing about trivial topics	BDI-II	Less depression
Sloan (2005)	Students	Writing about traumatic events (the same events or different ones) with writing about trivial topics	BDI-II	Less depression
Solano (2003)	Alexithymia patient	Writing about their experience about being in hospital with no writing condition	Subscale of the SCL-90	Less depression
Stroebe (2002)	Bereaved participants	Writing about thoughts and feelings related to the death of a partner, problems experienced as a result of this death, feelings and problems, and no writing condition	GHQ-28	No impact on depression
Taylor (2003)	Cystic fibrosis patient	Writing about traumatic events with no writing condition	PHQ Subscale	No difference between experimental and control conditions

Lepore (1997) produced one of the studies providing evidence that the disclosure procedure can result in a reduction in depressive symptoms In this study, healthy students, who were to sit an exam ten days later, were instructed to write about either stressful feelings and thoughts related to taking examinations or trivial topics for twenty-five minutes in one session The findings indicated that the participants in the disclosure condition showed a reduction in terms of their depressive symptoms as measured by the subscale of the SCL-90-R compared to those in the control condition

Solano *et al* (2003) also found that participants with alexithymia who wrote about their experience of being in the hospital showed fewer depressive symptoms (as measured by the SCL-90 subscale) relative to participants in the control condition However, it is unclear from this study whether writing about the stressor resulted in this finding or whether specific features inherent in written language produced this psychological health outcome, as the content of writing was not controlled by utilizing a writing control condition Instead, no writing condition was employed against writing about the experience of being in hospital Moreover, it is unclear whether or not the participants in the disclosure condition were comparable to those in the non-writing condition in terms of their depressive symptoms at baseline, as the differences in depressive symptoms at this time were not calculated

Another example of a study that found a positive impact of the disclosure procedure on depressive symptoms was conducted by Sloan and Marx (2004a) The researchers assigned college students who had experienced one or more traumatic events to write about either their traumatic experiences or about neutral topics across three consecutive sessions for twenty minutes per session Four weeks later, the participants in the written disclosure showed a statistical and clinical decline in

their depressive symptoms, as measured by the Beck Depression Inventory, Second Version (BDI-II), compared to the control group

Broderick *et al* (2005) also found support for the positive effect of emotional disclosure on depressive symptoms, as measured by the Beck Depression Inventory (BDI) Participants with fibromyalgia who wrote about stressful events showed a decrease in their depressive symptoms relative to those in the control conditions who wrote about neutral topics and who were in usual care

In a partial replication of Pennebacker's standard paradigm, Sloan *et al* (2005) asked undergraduate students with a trauma history to write about either traumatic experiences or trivial topics in three sessions of twenty minutes The participants who wrote about traumatic experiences were required to write about either the same traumatic event in each session or different traumatic events during each session Eight weeks after the study, the participants assigned to write about the same traumatic event in each session exhibited a clinical and statistical reduction in their depressive symptoms, as measured by BDI-II, compared to the participants assigned to the control condition and the participants assigned to write about different traumatic events at each writing session, whereas those conditions did not differ from each other

Consistent with previous studies, Austenfeld, *et al*'s study (2006) also provided evidence promoting the beneficial effects of the disclosure procedure on depressive symptoms Similar to those studies investigating the impact of the disclosure procedure on depressive symptoms, Jennifer and colleagues employed a student sample The participants were asked to write about their thoughts and feelings-related to upsetting events that had happened during their clinical clerkship (as the participants were medical students) (EMO), their goals for the future (BPS) or trivial

topics (CT) Three weeks following the writing task, the participants assigned to the EMO condition, with high emotional processing and emotional expression, as measured by Emotional Approach Coping (EAC), showed fewer depressive symptoms as measured by the Center for Epidomiologic Studies Depression scale (CES-D, Radloff, 1977)

Graf, Gaudiano, and Geller (2008) found that emotional disclosure in conjunction with psychotherapy led to a reduction in depression (measured by Depression Anxiety Stress Scales DASS) for participants who were psychologically ill patients

Magai, Consedine, Fiori and King (2009) found that depressive symptoms (measured by depression subscale of Brief Symptom Inventory BSI) for participants who were African Americans and who talked about stressful events and natural events, and participants who were European Americans and talked about natural topics experienced reduction in depressive symptoms Whereas participants who talked about stressful events and natural events and participants who talked about stressful events and positive events did not experience improvements in their depressive symptoms

On the other hand, other studies have not provided support for the beneficial impact of the disclosure procedure on depressive symptoms For example, Pennebebaker *et al* (1988) found that, at approximately three months following the experiment, there was no difference in the feeling of depression between participants who wrote expressive assignments and those who wrote about assigned neutral topics

Gidron, Peri, Connolly, and Shalev (1996) asked trauma survivors to write about their traumatic experience or to write about superficial topics Five weeks later, there

was no difference in the level of depressive symptoms (measured by the Beck Depression Inventory BDI) between the participants in both conditions However, this study exhibits some problems Firstly, it used a small sample size (n=8) in the experimental condition which is too small to achieve the adequate power to investigate the outcome effects (see Cohen, 1988) The second methodological problem is that some participants were on medication during the study, raising a question whether the outcomes refer to the experimental manipulation of the independent variable or not In addition, Gidron *et al*'s procedure, however, asked the participants in the written disclosure group to chose a severe experience, that they then wrote about and described orally, a procedure that differed from the emotional disclosure procedure assumed by Pennebaker (Pennebaker & Beall, 1986) and may have influenced the results of the study Accordingly, it is unclear whether these negative effects of disclosing a stressful experience refer to the disclosure procedure or to changes in the instructions, as there was no comparison groups utilized (Batten, 2002, Sloan, Marx, Epstein, & Lexington, 2007)

Robin, Ronald, and Nand (1999) did not find support for the positive impact of emotional disclosure on depressive symptoms, as measured by the shortened version of the Center for Epidemiological Studies Depression (CES–D) Scale The findings revealed that talking about problems associated with chronic illness and treatment did not affect depressive symptoms for participants with renal disease However, it should be noted that, unlike the disclosure procedure, the participants' talking in the disclosure condition was in response to a videotaped structured interview during one session of unknown duration

Another study that provided evidence that was incompatible with the conclusion that the disclosure procedure can lead to positive effect on depression was

conducted by Reynolds *et al* (2000) The findings revealed that, over time, there were no changes in depressive symptoms (as measured by the Birleson Depression Inventory) for any of the study participants those who wrote about upsetting experiences, those who wrote about neutral topics, and those in the no writing condition It should be noted that healthy children participants were utilized in this study

Batten *et al* (2002) also did not find support for the positive effect of the disclosure procedure on depressive symptoms as measured by the Beck Depression Inventory (BDI) In their study, the researchers compared the effects of writing about child sexual abuse (CSA) with writing about trivial topics The findings after twelve weeks indicated that the measured depressive symptoms of the participants in the experimental condition remained at comparable levels across the course of disclosure, whereas the participants in the control condition showed a decline in their symptoms

de Moore *et al*'s study (2002) also did not find support for the positive effect of disclosing upsetting experience on depressive symptoms Participants who wrote about their cancer did not differ from those wrote about assigned trivial topics in terms of their depressive symptoms, as measured by the Profile of Mood States (POMS) subscale

In a study conducted on relationship break-up, Lepore and Greenberg (2002) found that expressive writing did not lead to a reduction in depressive symptoms (measured by the subscale of the shortened version of the Profile of Mood States ,POMS-SF) for participants who wrote about their break-up Accordingly, this study also did not confirm the positive impact of emotional disclosure on depressive symptoms

Another contradictory finding to the beneficial effect of the disclosure procedure on depression emerged from a study conducted by Kloss and Lisman (2002) In this study, the scholars found that reported depressive symptoms (measured by the Beck Depression Inventory BDI) after a course of disclosure were comparable among participants who wrote about traumatic experiences, trivial topics, and positive experiences

Within studies that have not supported the utility of the disclosure procedure in reducing depressive symptoms, a study conducted by Stroebe *et al* (2002) The investigators found that writing did not affect depressive symptoms (as measured by the GHQ-28) of bereaved participants who wrote for seven consecutive days about their emotions and feelings related to the death of their partner, the problems they have experienced as a result of their partners` death, their emotions and feelings and problems combined, and the no assignment control conditions

Taylor, Wallander, Anderson, Beasley and Brown (2003) also failed to find support for the positive impact of emotional disclosure on depressive symptoms Participants with cystic fibrosis (CF) who wrote about their upsetting events did not differ in their perceived symptoms of depression (as measured by The Patient Health Questionnaire PHQ subscale) from participants who were in the waiting list control condition However, in addition to utilizing a non-depressed sample, the content of the writing was not controlled, making it impossible to determine whether these findings refer to written language per se, or to the intervention

Moreover, the findings from the meta-analysis by Meads, Lyons, and Carroll (2003) revealed that there were no differences between the participants in the experimental condition and those in the control condition regarding depression The researchers attributed this finding to the samples employed in previous research

These samples mainly involved healthy participants

The findings from Schwartz and Drotar's study (2004) also did not find support for the positive impact of emotional disclosure on depressive symptoms (measured by the Mood and Anxiety Symptom Questionnaire, MASQ) among healthy participants Participants who were the caregivers of children with chronic illness and who wrote about upsetting experiences did not differ in terms of their depressive symptoms from those in the control condition who wrote about superficial topics

Among studies that have not found support for the beneficial effect of disclosing stressful events on depressive symptoms, a study conducted by Lewis *et al* (2005) indicated that writing about lesbian-related thoughts and feelings did not have an impact on depressive symptoms as measured by the Profile of Mood States (POMS).

Gortner, Rude, and Pennebaker (2006) also did not find support for the positive impact of emotional disclosure on depressive symptoms, as measured by the Beck Depression Inventory (BDI) Five weeks after the experiment, the findings revealed that there was no effect of emotional disclosure on depressive symptoms among the participants, who were college students It should be noted that, six months later, there was a positive effect for emotional disclosure on depressive symptoms among participants in the written disclosure who were high on suppression However, it is not clear whether or not these changes in depressive symptoms resulted from the intervention

Baikie and McIlwain (2008) also failed to find evidence supporting the beneficial effect of disclosing upsetting experience in depression Student participants who wrote about stressful events for 20 minutes over four weekly sessions did not experience a reduction in their depressive symptoms as assessed by TSC-40

Another study that provided evidence contradicting the positive impact of

emotional disclosure on depression was by Corter and Petrie (2008) The researchers found that writing about stressful events did not lead to a reduction in depressive symptoms (measured by Beck Depression Inventory Short Form) for student participants who were in a stark setting (stark and brightly lit laboratory room, computer-prompted experimental instructions, and typed assignments), a confessional setting (dimly lit and decorated laboratory room, computer-prompted experimental instructions, and typed assignments), and a personal confessional setting (experimental instructions were given personally by the experimenter, and hand-written assignments) It should be noted that participants wrote during one 30-minute session and no control condition was utilized

Jennifer and Stanton (2008) also failed to find support for the positive impact of emotional disclosure on depressive symptoms measured by the Center for Epidemiologic Studies-Depression scale (CES-D There were no differences in the severity of the depression between the undergraduate participants who wrote about their upsetting experiences, those wrote about their best possible self, and those who wrote about trivial topics, regardless of the participants' level of emotional expression and emotional processing

Overall, there has not been consistent support for the beneficial effects of the disclosure procedure on depression These mixed results may refer to the samples employed in previous studies, as the majority of participants utilized in previous work were not treatment seeking, instead, they were psychologically healthy Thus, it seems that there may have been selective sampling bias In other words, those participants who are psychologically healthy may not lack the coping skills that may be low among psychologically disordered individuals (Bootzin, 1997) Therefore, these individuals may be in a greater need of this intervention than healthy

individuals (Frattaroli, 2006) Moreover, there has been considerable research linking the onset of depression with experiencing stressful events (e g , for reviews of studies dealing with this issue, see Billings & Moose, 1982, Lloyd, 1980, Paykel, 1979), hence, depressed individuals may have more stressor to disclose and, subsequently, may benefit more from participating in such studies Highlighting this notion are the findings from Greenberg and Stone (1992), and Pennebaker and his colleagues (Pennebaker *et al*, 1987), since the participants disclosing more severe traumas showed more health benefits than those who disclosed less severe trauma

Hypothesis 2:

Based on this review of the literature concerning the effect of the disclosure procedure on depressive symptoms, it appears that there is no study dealing with clinically depressed samples Thus, in response to repeated calls from many scholars (e g , Bootzon,1997, Esterling *et al*,1999, Kacewicz, *et al* (in press), Pennebaker, 1997, Smyth, 1998) to utilize a patient sample to be able to investigate the utility of the disclosure procedure as a therapeutic tool, the following hypothesis will be tested

Compared with the control groups, the participants in the four disclosure conditions would show fewer long term depressive symptoms as measured by the Beck Depression Inventory (BDI)

1.3 *Studies attempting to determine the feature of emotional disclosure that produces the maximum beneficial effects*

The features of emotional disclosure that have been found to facilitate health outcomes and have been investigated are written disclosure, disclosing alone, disclosing to a supportive listener, and disclosing to a challenging listener Certainly, there has been no attempt to compare these features together Existing studies have tried to compare two or three of these features However, these studies are limited and even the majority of them show serious methodological problems Following, these studies will be reviewed, their problems will be highlighted, and a hypothesis regarding this issue will be formulated

There has been an attempt to compare talking about stressful events alone with talking about these events to a silent listener behind a curtain This study was conducted by Pennebaker *et al* (1987) The findings revealed that the participants in the disclosing alone condition showed a lower skin conductance than those in the disclosing to a listener condition However, the two conditions were not matched in terms of utilizing a tape recorder, as was used in the disclosing alone condition, making it impossible to determine whether the observed outcomes refer to the physical absence or mental presence of a listener

Other efforts to determine the best way to express stressful material have compared written disclosure with disclosing orally to a supportive listener Unfortunately, these attempts also demonstrate methodological problems In this study, Murray *et al* (1989) compared the impact of writing about stressful events with talking about them to a psychotherapist, who was reflecting supportive feedback, along with writing about trivial topics The findings from this study indicate that the participants in the oral expression showed greater changes in terms of their

cognition, self-esteem and adaptive behaviour relative to the participants in the written expression and control condition Further, the participants in the written disclosure exhibited better changes in all of these areas compared to those in the written trivial condition However, this study suffered from several limitations to the extent that it is impossible to draw a conclusion regarding the superiority of oral disclosure to written disclosure firstly, confounding several factors that should be distinguished, for instance, oral disclosure, attending a listener, and receiving supportive feedback, secondly, comparing written disclosure with disclosing orally to a supportive listener reflects serious methodological problems as the experimental conditions are unable to be matched regarding several controlled variables (e g , oral language, attending a listener, receiving feedback) Accordingly, it is impossible to attribute the obtained outcomes to a specific factor

Another study that has been conducted to compare the impact of written disclosure with disclosing orally to a supportive listener was that by Donnelly and Murray (1991), who conducted an identical study to that of Murray *et al* (1989) (except for increasing the number of sessions from two to four), thus, this study had similar limitations

To determine the feature of disclosure that produces the most beneficial outcomes, another line of research has compared disclosing into a tape recorder with written disclosure However, these studies are few and some of them illustrate several limitations One such study has been conducted by Esterling *et al* (1994) The researchers compared talking about stressful events into a tape recorder with writing about these events, along with writing about trivial topics as the control. The participants assigned to the oral disclosure condition showed greater cognitive change and lower EBV antibody titers (indicating better immune functioning) relative

to the participants assigned to the control condition and the written disclosure condition Further, the participants in the written disclosure exhibited better cognitive change and lower EBV antibody titers compared with those in the control condition Additionally, participants in the oral disclosure group reported improvements in self-esteem and adaptive coping strategies compared with the participants in the written disclosure and the control condition which did not differ from each other in terms of these variables However, it is impossible from these findings to conclude that oral disclosure is better than written disclosure As the content of oral disclosure was not controlled by employing a control condition against an oral disclosure condition, this makes it impossible to determine whether the outcomes refer to characteristics inherent in oral language or to the oral disclosure Moreover, the experimental and control conditions were not matched regarding certain variables, such as gender, since there has been an indication that disclosure`s outcomes may be affected by differences in gender, since males may benefit more from disclosure than females (Smyth, 1998)

Within this line of research, Murray and Segal (1994) also conducted a study that compared disclosing into a tape recorder with disclosing via writing These conditions were controlled by two conditions writing or talking about superficial topics The findings showed that the participants in both disclosure conditions demonstrated more positive changes in terms of their cognition and effects relative to the control conditions However, the participants in the oral disclosure were comparable to those in the written disclosure regarding these changes

Unlike in previous work, other attempts have aimed to compare the impact of different aspects of talking about stressful materials Lepore, Ragan, and Jones (2000) compared talking alone with talking to a validating listener, along with talking

to an invalidating listener about a stressful stimulus to which the participants had been exposed These conditions were contrasted by the no talk condition The findings indicated that, compared to the control group, the participants talking alone or talking to a supportive, validating confederate showed a decline in their level of intrusive thoughts and perceived stress when they were re-exposed to the stressor There has been another study conducted by Lepore, Fernandez-Berrocal, Ragan, and Ramose, (2004), in which the researchers followed a similar procedure utilized by Lepore *et al* (2000)

The findings from these two studies must be treated, however, with some caution The stressors employed in both studies were external stimuli (a scene about Holocaust in Lepore *et al* 2000, and a scene about rape in Lepore *et al* 2004) Moreover, the number of disclosure sessions was few (two sessions for both studies), and the duration of these sessions was short (two minutes in Lepore *et al* 2000 and three minutes in Lepore *et al* 2004) Pennebaker (2000) recommended that, in order for the disclosure procedure to be helpful to individuals, they should disclosure for at least 15 minutes and for at least three sessions A short session of disclosure may be unhelpful, or even damaging because, in this short period of time, stress-related thoughts and feelings are aroused but there is no time to achieve the cognitive process necessary for gaining benefits from the disclosure procedure (Paez & Gonzalez, 1999) To explore which form of the disclosure procedure will produce the most beneficial outcomes, these forms need to be precisely identified and isolated, and the participants need to be help seekers, and disclose their thoughts and feelings associated with personal upsetting experiences over a sufficient time period

Hypothesis 3:

In short, research attempts that have been made in the past do not precisely suggest which way of processing troublesome feelings is most beneficial to the discloser It is unclear whether disclosing alone, disclosing to a supportive listener, disclosing to a challenging listener, or disclosing via writing is most likely to facilitate cognitive restructuring and improved health Therefore, this study sought to correct the problems identified in previous work It is designed in a comprehensive unconfounded way that should make it possible to investigate the following hypothesis

Participants, in disclosing orally to a challenging listener condition, would show the greatest long-term reduction in depressive symptoms as measured by BDI-II

3.4 Summary

From this review of the literature, it appears that the efficacy of the disclosure procedure has been widely supported However, several issues have remained unresolved Firstly, the mechanism whereby these effects are produced remains mostly unknown Further, the clinical utility for the emotional expression has not been examined precisely despite the indication from these findings that the disclosure procedure holds some promise for clinical practice In particular, no emotional disclosure study deals with a clinically depressed sample The other issue that has not yet been fully addressed by previous work is the style of the disclosure procedure that produces the most beneficial health outcomes Further, this review of the literature provided the theoretical framework necessary for conducting this study

Thus, based on the review of the literature, this study sought to remedy the

existing gap and correct the problems found in previous work Consequently, this study seeks to examine whether cognitive restructuring (as measured by changes in one`s perspective, utilizing self-reported questionnaires) mediates the relationship between disclosing upsetting experiences and a reduction in depressive symptoms Further, it aims to determine whether the desirable changes in cognition and depressive symptoms are best facilitated by disclosing to a challenging listener Furthermore, this study seeks to determine whether the disclosure procedure has the ability to reduce depressive symptoms in individuals seeking help An empirical investigation has been conducted to address these issues Chapter five provides an elaborate description of the design of this empirical investigation

CHAPTER 2

LITERATURE REVIEW (PART II)

Literature Review On Depression

One of the aims of this chapter is to provide background information regarding depression Through reviewing this background, it is sought to identify the reasons that may make emotional disclosure result in a reduction in depressive symptoms and to help to understand how emotional disclosure may work Further, since this study utilized Libyan participants, and since Libyan culture has its own features that differ from Western and Asian cultures in terms of its values system and stigmas, the other aim of this chapter is to provide a brief overview of Libyan culture Accordingly, this chapter will be divided into six sections Firstly, depression's prevalence, definition, symptoms and classification will be demonstrated Secondly, the issue regarding continuity of depression and depression personality disorder will be briefly mentioned separately Third, the methods for measuring depression will be outlined Fourthly, psychological theories regarding the causality and treatment of depression will be reviewed Fifthly, the relation between depression and stressful events will be documented Sixthly, a brief

description of the Libyan culture will be provided

2.1 Prevalence, definition, and symptoms of depression

2.1.1 Prevalence of depression

The frequency of depression presents one of the greatest challenges of depression (Hammen, 1997), since depression is considered to be the most frequent mental health problem (Feighner & Boyer, 1991, Wolman, 1990) It has been described as the common cold of the mind (Gilbert, 1992), with a prevalence rate for depression of approximately 5% of the population (Angest *et al*, 2003), and more than 100 million people being diagnosed as depressed (Wolman, 1990) The World Health Organisation (WHO) predicts that, by 2020, depression will be the second most common cause of morbidity worldwide (Brown, 2000), and it is predicted to become the second cause of disability worldwide by 2020 (Murray & Lopez,1997) The estimated rate of depression among the community population in the United Kingdom , for example, has been found to be 2% (Hale,1997) The estimated cost of depression among adults in England only was over £9 billion in 2000, there were 2615 deaths due to depression, and 109 7 million lost days of work (Thomas & Morris, 2003) This great prevalence of depression is not restricted to developed countries, but developing countries suffer also from similar problems For example, in Libya (where the study was conducted), depression has found to be the most common neurotic disorder (Avasthi, Khan, & Elroey, 1991)

2..1.2 Defining Depression

The term depression is applied to describe range of experiences, from a brief negative mood to a medically-defined syndrome (Gotlib & Hammen, 1992) Clinical depression is distinguishable from a brief negative mood by its severity, duration and impact on the functioning of those suffering from it (Mendels, 1970) When the term is used to describe a mood state, depression is considered to be a normal response to minor stressors, such as minor failures, and disappointments This experience can be accompanied by several cognitive (e g , negative thoughts) and physical (e g , low energy) symptoms However, these cognitive and physical symptoms are normal, last for hours or even days and do not affect cognition, behaviour, or bodily functioning (Gotlib & Hammen, 1992) On the other hand, the syndrome of depression is a depressed mood accompanied by a number of symptoms persisting across time and disrupting and attenuating one`s functioning This kind of depression is the clinically significant depression Features that define clinical depression include affective symptoms, cognitive symptoms, and behavioural symptoms The following section provides a brief description of each of these features

2.1.3 Symptoms of depression

2.1.3.1 Affective symptoms

Depression is known as one of the affective disorders due to the abnormal affect Therefore, typically depressed individuals feel sad, low and empty (Hammen, 1997) Mildly and moderately depressed individuals tend to

cry frequently, even when they do not have clear reason to do so, while those with severe depression may be unable to cry (Mendels, 1970) Further, some depressed individuals may not manifest a depressed mood but, rather, may report a losing interest or pleasure even in the activities that were previously enjoyable, such as social activities and sex (Hammen, 1997) Several explanations have been offered to account for this disturbance in mood For example, the learned helplessness theorists suggest that a depressive mood can be seen as a result of learning that outcomes are uncontrollable (Abramson, Seligman, & Teasdale, 1978) Cognitive theories see depressed mood as a consequence of negative cognitions (e g , Beck, 1972)

2.1.3.2 Cognitive symptoms

Depression has been considered as a disorder of thinking as much as it is a disorder of mood (Hammen, 1997) Negative thoughts about the self, world, and future and self reproach are typical (Beck 1972, Gotlib & Hammen, 1992, Hammen, 1997) Some theorists (e g , Beck, 1972) stress the importance of the cognitive feature of depression to the extent that he regards the negativism of perceiving the self, world, and future to be the underlying vulnerability to depression In addition to the negative thoughts, depressed individuals suffer from difficulties in memory, decision making and concentration (Watt, 1993) Depressed patients report difficulty in concentration, particularly when they watch television or they read (Watt, 1993)

2.1.3.3 Behavioural symptoms

Another feature that characterizes depression is the changes in psychomotor activity These changes appear in a slower bodily movement and thinking, with a reduction in spontaneous behaviour or physical and psychological agitation and restlessness (Mendels, 1970) For example, in manifesting retardation, depressed individuals may tend to talk and move more slowly, making fewer attempts to start conversations and avoiding eye contact when they engage in conversation (Hammen, 1997), while, when depressed individuals manifest physical and psychological agitation, they may demonstrate restlessness, hand movement and fidgeting

2.1.3.4 Physical symptoms

In addition to alterations in behaviour, depressed individuals may experience physical alterations These alterations manifest themselves in changes in appetite, sleep, and energy Depressed individuals may show a reduction in their appetite, subsequently, they may experience weight loss However, individuals who are mildly to moderately depressed may show an increase in their appetite and subsequently gain weight (Mendels, 1970) Constipation presents another physical symptom that frequently appears among depressed individuals In some cases, this may be become severe, to the extent that depressed individuals do not have bowel movement for more than ten days (Mendels, 1970)

Another aspect of the physical symptoms is sleep disturbance Sleep disturbance can be manifested in different aspects For instance, depressed individuals may find difficulty in falling asleep, feel restless, waken during the

night or in the early hours of the morning, have difficulty in getting back to sleep, and experience nightmares (Cartwright, 1993, Hammen, 1997, Mendels, 1970) Consequently, when they wake up in the morning, they do not feel rested and they feel that they do not gain benefits from their sleep (Mendels, 1970) On the other hand, depressed individuals who are mildly depressed may show tendencies towards excessive sleep (Mendels, 1970) In Buchwald and Rudick-Davis` study (1993), the researchers found that 98% of depressed patients reported one or more sleep problems

Within physical symptoms, depressed individuals also may complain about a dry mouth, aches and pains, headaches, neuralgia, tight feelings in the chest, and difficulty in swallowing (Mendels, 1970) Depressed women may experience changes in their periods, with a lengthening of the usual period that may be a much lighter flow, or their periods may stop (Mendels, 1970)

The other physical symptom demonstrated by depressed individuals is changes in libido This change ranges from a decline in spontaneous interest in sexual activity to feelings of being averse to sex (Mendels, 1970) Depressed individuals also illustrate frequently a reduction in their energy, Buchwald and Rudick-Davis (1993) found that 93% of depressed patients showed reduced energy This reduction appears in several forms, for example, listlessness, lethargy, feeling heavy and leaden, and lacking the physical stamina to undertake or complete tasks (Hammen, 1997)

2.1.3.5 Anxiety symptoms

Depressed individuals frequently manifest symptoms of anxiety

disorder (Maj & Sartorius, 2002, Mendels, 1970) such as tension, uncertainty, vague, and non-specific fears, and a multitude of concerns, tremor and sweaty palms (Mendels, 1970)

As can be seen from this brief description, the symptoms that characterize clinical significant depression in depressed individuals are characterized by having a negative evaluation of the environmental information Thus, one can assume that those individuals may be in a real need of emotional disclosure, as this intervention has been found to have positive cognitive changes (e g , Donnelly & Murray, 1991, Lang *et al*, 2003, Schoutrop *et al*, 2002, Pennebecer, 1993, Pennebaker, 1997)

Further, there is a multiplicity of these symptoms This multiplicity indicates that depressed individuals differ in their intensity of symptoms or suffer from different forms of depression that have different causes and treatments (Hammen, 1997) Several diagnostic criteria are used to define the presence of clinical depression The following section provides a brief description of the classifications of depression, followed by the methods employed to assess depression

2.2 Classification of depression

The criteria have been offered to classify depression are the Diagnostic and statistical Manual (DSM) and the International Classification of Diseases (ICD) Although the Diagnostic and statistical Manual Fourth Edition (DSM-IV) and International Classification of Diseases Tenth Version (ICD-10) can be used interchangeably in clinical practice (Maj & Sartorius, 2002), some of the subtypes of clinical significant depression in DSM-IV (American Psychiatric association, 1995) will be described below, as DSM-IV is the

diagnostic criteria utilized in diagnosing the current study's participants

Subtypes of depression in Diagnostic criteria for DSM-IV

The first classification for clinical depression is dividing depression into two categories unipolar depressions and bipolar disorder Unipolar depressions consist of depressive disorders occurring without existing current or past mania or hypomania. Mania and hypomania are episodes that are opposite to depression in many ways (e g , mood, self-esteem, activity level) and individuals who show cycles of both depression and mania or hypomania are regarded as suffering from bipolar affective disorder (Hammen, 1997)

According to DSM-IV (1995), unipolar depressions can be manifested by one of three features major depressive episode, dysthymic disorder, or depression not specified It should be noted that, although the term bipolar is maintained in DSM-IV, the term unipolar has been eliminated Several reasons may justify this elimination The first reason is the difficulty in distinguishing unipolar depression from bipolar II (bipolar II is bipolar that includes depression with a history of hypomania, Hammen, 1997), if the hypomania is infrequent or short (Gotlib & Hammen, 1992) The second reason refers to the indication that there are latent bipolar cases with some parts of the depressive spectrum, since patients who are diagnosed as unipolar in one of its forms may turn out to be bipolar, even in late age (Maj & Sartorius,2002) Highlighting these points finding that 15% of individuals who were diagnosed initially as unipolar were rediagnosed on follow-up as bipolar (NIMH Conference Statement, 1985)

2.2.1 Major-Depression

In order for individuals to be diagnosed as having major depression, individuals must demonstrate symptoms all or most of the time for at least two weeks and the episode must be clinically significant regarding the production of distress or the impairment of several areas of functioning (e g , social role, occupational role) According to DSM-IV, major depression is subdivided on the basis of quantitative criteria that include number of symptoms, and duration and content specifiers It should be noted that, by applying the term specifiers to determine the descriptive features of major depression, DSM-IV avoids the indication that those features emerge from similar causes (Hammen, 1997) The subtypes of major depression include melancholia, depression with psychotic symptoms, atypical depression, and recurrent brief depression

2.2.1.1 Melancholia

Melancholia is the oldest term that was used by Hippocrates to diagnose depression (Maj & Sartorius, 2002) Melancholic features include depressed mood that manifests in the loss of pleasure even in enjoyable activities, diurnal variation in which depression is worse in the morning than the evening, excessive feelings of guilty, awakening early in the morning with difficulty getting back to sleep, psychomotor change, retarded or agitated behaviour, significant loss of appetite and weight loss accordingly

2.2.1.2 Depression with psychotic features

This subtype of major depression is characterized by presenting psychotic features that include hallucinations or delusions These hallucinations and delusions contain depressive theme, such as feelings guilty due to different beliefs (e g , nihilistic beliefs, delusion about the world ending) or bodily delusions (Hammen, 1997) However, sometimes, depressed individuals with melancholic features' hallucinations and delusions do not have a depressed theme

2.2.1.3 Atypical Depression

Depressed individuals with atypical depression manifest the opposite depressive features to those found in melancholic depression, for example, increases in their appetite accordingly, weight gain, and tendencies to excessive sleep Even though depressed individuals with atypical depression react to positive events, they show excessive sensitivity to rejection (Maj & Sartorius, 2002) Depressed individuals have to show atypical depression symptoms during two weeks for an episode of major depression or in the past two years for dysthymia

2.2.1.4 Recurrent brief depression

The criteria of this disorder include depressive symptoms occurring at least once a month for two days to two weeks for at least 12 months (Hammen, 1997)

2.2.2 Dysthymia

The term dysthymia was used previously to indicate depressive neurosis (Gotlib & Hammen,1992, Maj & Sartorius,2002), depressive personality, and characterological depression (Maj & Sartorius,2002) Currently, in order to diagnose depressed individuals as having dysthymic disorder, individuals have to show symptoms for at least two years (it may be that there is a normal mood lasting for no more than two months during this period), and dysthymic disorder results in significant distress and disrupts individuals` significant areas of functioning Depressed individuals with dysthymic disorder show a depressive mood, disturbance in appetite, a decline in appetite with loss weight subsequently, or excessive appetite with increase in weight accordingly Individuals with dysthymic disorder also complain of difficulties in falling asleep, waking early before the usual awakening time with difficulty getting back to sleep, or may show too much sleep, a reduction in energy level, low self-esteem, difficulty in concentration and decision making and a feeling of hopelessness and losing interest in social relationships (DSM-IV,1995)

Typically, the onset of dysthymic disorder occurs in early life (before age 21, Hammen, 1997), even though it is diagnosed in later life Several investigators (e g , Endicott *et al*, 1997) consider the early onset to be a distinct description for dysthymic disorder When depressed individuals suffer from major depression for two years before the dysthymic disorder or if they co-occur, their diagnosis, according to DSM-IV, is major depression only However, when individuals suffer from dysthymic disorder and major depression is superimposed on dysthymia after two years, individuals are

considered to have double depression (Gotlib & Hammen,1992, Hammen, 1997, Katon *et al*, 1995)

2.2.3 Other Depressive Types

If symptoms do not meet the criteria for major depression or dysthymic disorder, depressive disorder can be classified as depression unspecified This category can include seasonal depression, premenstural dysphoric disorder, and minor depressive disorder There follows a brief description for each of these disorders

2.2.3.1 Seasonal depression

Symptoms of this disorder appear at a fixed time in the year but clear up at particular time For instance, in the Northern hemisphere, depression appears in Autumn or Winter and disappears in the Spring (Hammen, 1997)

2.2.3.2 Premenstural dysphoric disorder

These are depressive symptoms that regularly occur at the end of the menstrual cycle prior to menses and are severe to a degree that causes impaired functioning in significant areas It is not known whether these symptoms constitute a distinct disorder or they are a part of or superimposed on other depressive and mental disorders (Hammen, 1997, Maj & Sartorius, 2002)

2.2.3.3 Postpartum depression

It has been indicated that, three to seven days after delivery, the vast

majority of women suffer what is called baby blues (Hammen, 1997, Leller *et al*, 1992), in which they exhibit mild symptoms of depression, such as the loss of appetite, disturbance in their sleep through insomnia, crying and a depressed mood (Hammen, 1997, Maj & Sartorius, 2002) These symptoms are considered to be normal, as they are responses to the profound changes in hormones (Hammen, 1997) However, showing these symptoms a few weeks after giving birth is diagnosed to be major depression with postpartum onset (Hammen, 1997) Generally, there are no differences between the symptoms of postpartum depression and the symptoms of major depression (Kara, Unalan, Cifeili, Save Cebeei, & Sarper, 2007)

In the absence of any kind of treatment, these symptoms last from 3 to 12 months (Theofrastus, & Galvin, 2000) Several factors play a role in developing postpartum depression, such as marital difficulty, being the head of the household, upsetting life events, absence of social support, separation, unwanted pregnancy, suffering from depression during this pregnancy, lack of practicing breast feeding, and stress emerging from look after a child (Verkerk, Pop, Van Son, & Van Heck, 2003) 1 to 1000 women can have psychotic postpartum depression, that includes hallucinations and delusions regarding the baby (Hammen, 1997, Maj & Sartorius, 2002) This may lead the woman to behave in dangerous way towards the child (Hammen, 1997) Postpartum depression is more common among women with bipolar disorder

2.3 Co-morbidity in depression

In addition to different features of depression that present pure depression, depression can be found with a number of disorders, and this

picture has even been found to be the most common (Rohde, Lewinsohn, & Seeley, 1991) Highlighting this notion is the finding that only 44% of participants who met the criteria for current major depression disorder showed pure depression, whereas the majority (56%) showed depression with at least one other disorder (Blazer, Kessler, McGonagle, & Swartz, 1994) Bernstein (1991) also found that, in a clinical sample consisting of children and adolescents, there were more patients with depression and anxiety combined than with pure depression and pure anxiety respectively

Leckman, Weissman, Merikangas, Pauls and Prusoff (1983) and Sanderson, Beck and Beck (1990) found that depression was co-morbid with anxiety disorders Depression has also been found to co-occur with substance abuse (Winokur, Black, & Nasrallah, 1988) In Rohde *et al*'s study (1991) the researchers found that 42% of depressed adolescents and 25% of depressed adults had at least another mental disorder

Depression has also been found to be co-morbid with personality disorders Personality disorders are defined by the American Psychiatric Association (APA) as "an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the culture of the individual who exhibits it" Studies have found depression to co-occur with personality disorders (e g , Carney, Nelson, & Quinlan, 1981, Friedman, Aronoff, Clarkin, Corn, & Hurt, 1983, Pfohl, Stangl& Zimmerman,1984, Pilkonis, & Frank, 1988, Tyrer, Casey, & Gall, 1983, Zimmerman, Coryell, Pfohl, Corenthal, & Stangl, 1986) Moreover, Framer and Nelson-Gray (1991) reviewed studies dealing with personality disorders and depression Their findings indicated that the co-morbidity rate was 30-70% The existing rates of personality

disorders that are co-morbid with depression ranged from 23-87% (Shea, Widiger, Klein, 1992) It should be noted that term primary-secondary depressive disorder is more favoured than the term co-morbidity by several authors (e g , , Maj & Sartorius,2002) Several theoretical and clinical limitations have been outlined by those authors (e g , poor conceptual clarity)

2.4 The continuum of depression

The issue of continuous depression is related to the question whether the difference between mild depression and more severe clinical depression is only one of degree In other words, do mild depression and severe clinical depression exist in the same dimension (Gotlib & Hammen, 1992)? In fact, the methods that have been developed to assess the severity of depression (self-report, interviewer-administered measures) are mainly based on the continuity of the depression (Gotlib & Hammen, 1992) The findings from a longitudinal large survey study conducted by Horwath, Johnson, Klerman, and Weissman (1994) may bolster this view, since the researchers found that individuals who reported depressive symptoms were 4 4 times more likely to develop major depression than those who did not show such symptoms Further, the first onset of major depression reported by more than 50% of the sample was associated with prior depressive symptoms Additionally, individuals with depressive symptoms have been found to develop dysthymia 5 5 times more than individuals who did not report depressive symptoms (Horwath, Johnson, Klerman, and Weissman, 1992) However, it should be noted that, as it is impossible to know what happened to participants during

that year, it is likely that the participants who developed major depression or dystimic disorder may have experienced more stressful events than those who did not develop such disorders, or their circumstances may have changed (e g , they got divorced or married or lost their jobs, as it has been found that depression is related to being unemployed, Feather, & Barber, 1983)

On the other hand, there is evidence that there may be a discontinuity between mild and clinical types of depression This evidence comes from two types of findings The first is the finding that individuals may not develop clinical depression even though they undergo stressful events unless they have experienced depression before (e g , Hammen, Mayol, deMayo, & Marks, 1986) The second type of evidence supporting the discontinuity of depression emerges from studies that found that being previously depressed increases the possibility of becoming depressed, while individuals who have never been depressed rarely becomes so (Lewinsohn, Hoberman, & Rosenbaum, 1988) Therefore, even though the severity of the depression can be measured on a single dimension, there are qualitative differences that are distinct to more severe depression (Gotlib & Hammen, 1992)

2.5 Depression Personality Disorder

Even thought depression personality disorder was eliminated from the DSM-III and DSM-III R, it is readmitted in appendix B of DSM-IV, amid controversy (Phillips, Hirschfeld, Shea, & Gunderson, 1996) Seven characteristics have been determined to distinguish depression personality disorder Showing five or more of these characteristics diagnoses one as

having depression personality disorder (Phillips, 1998) These characteristics include variants of depressed mood, dejection, gloominess, cheerlessness, low self-esteem, worthlessness, inadequacy feelings, self-criticism, self-critical, blaming, pessimism, feeling guilty, negativistic and critical of others (Klein & Miller, 1993) Depression personality disorder is similar to dysthymitic disorder, the onset of which occurs in early life and is chronic, and it shares a number of the same symptoms (Maj & Sartorius, 2002) The relationship between depression personality disorder and depressive disorders and personality remains unresolved (Maj & Sartorius, 2002)

2.6 Assessing depression

Two types of method have been offered to assess depression in adults The first method measures the severity of the depressive experience The second method is diagnostic in nature, and assesses the presence of diagnosable conditions (Hammen, 1997) The following sections will present a brief description of these methods

2.6.1 Methods for assessing the severity of depression in adults

Measuring depression by relying upon utilizing instruments for assessing the severity of depression can be divided into two procedures The first is self-rating, while the second is the interview-based or observer-based method (Raskin, 1986, Hammen, 1997) What follows is a summary of these approaches, with examples of each

2.6.1.1 Self-rating scales

Nezu, Ronan, Meadows and McClure (2000) defined self-rating scales as "a method of assessment whereby the participant answers specific questions in the form of a questionnaire or inventory" (p, 11) This type of assessment of the severity of depression is completed by using a pencil and paper or may be filled in via computer Several forms of this method can be completed within 10 minutes (Nezu *et al*, 2000) There are several advantages to utilizing self-rating measures in assessing the severity of depression For example, they save time, are cost-effective and do not influence any theoretical frame nor rater bias (Raskin, 1986) However, a number of limitations has been mentioned for employing self-rating instruments For instance, they can only be used by patients who are enthusiastic, literate, and less unwell, and must not be used with patients who are non-comprehension or where there is the possibility of falsification (Snaith, 1981) However, self-rating measures (BDI-II) have been used successfully with depressed inpatients on acute psychiatric inpatient wards (Iqbal & Bassett, 2008) Further, self-rating has also been used with patients suffering from Alzheimer's Disease (type SDAT), as Raskin (1986) cited Further, in such cases or in the case of illiterate patients, the interviewer-assisted procedure can be utilized (Mayer, 1977)

Regarding another disadvantage mentioned by Snaith (1981), that the patients must be enthusiastic about participating in the study, this can be increased by warm atmosphere that should be inspired by the researcher, as Cronbach (1999) recommended It is assumed that a participant who is not enthusiastic about participating may not complete the study or the scale,

hence, his/her participation will not be accounted The other issue was raised by Snaith (1981) that participants have a tendency towards falsification Indeed, this problem can be resolved by utilizing scales that have been formed to control this type of tendency (e g , Minnesota Multiphasic Personality Inventory a Lie subscale, a social desirability scale also can be used to measure the participant' attitudes regarding giving responses that are socially desirable) There follows a brief outline of some of the most common self-rated questionnaires that are suitable for utilising with adults and adolescents

2.6.1.1.1 Examples of self-report measures

Numerous self-report scales have been developed to measure the severity of depression Some of these measures were designed specifically to assess depressive symptoms Other measures were designed to assess general mood or psychiatric symptomatology, hence, measuring depression is a subscale in such measures The following section provides a brief description of some of the most widely used instruments for both kinds of measures

A Measures aimed at assessing depression

This group of scales is designed to measure depression in particular Examples of such scales will be outlined below

A 1 Beck Depression Inventory

The Beck Depression Inventory (BDI) has been considered to be the most frequently utilized self-rating method to assess depressive symptoms (Boyle, 1985, Gotlib & Hammen, 1992, Mayer, 1977, Nezu, *et al*, 2000) It was developed to be an interviewer-assisted procedure, however, it can be applied by individuals themselves (Mayer, 1977) The BDI consists of 21 items, each of which has four response choices The items present the symptoms of depression Thus, these categories of items involve mood, pessimism, sense of failure, lack of satisfaction, feelings of guilt, sense of punishment, self-dislike, self-accusation, suicidal wishes, crying spells, irritability, social withdrawal, indecisiveness, distortion of body image, work inhibition, disturbance of sleeping, fatigability, appetite loss, loss of weight, preoccupation of somatic aspects, and losing interest in sex (Beck, Steer, & Garbin, 1986)

For each category of the BDI, there is gradual increase in the severity of the symptoms Thus, for each category, there are four alternative statements that range from a neutral response to a maximum level of severity For example, in the mood category, the first statement is "I do not feel sad", while the last statement is "I am so sad or unhappy that I can't stand it" Beck, Steer, and Garbin (1988) conducted meta-analyses of studies investigating the psychometric properties of the BDI with psychiatric and non-psychiatric samples The findings indicate that the BDI had a high level of internal consistency with the Cronbac alpha 0 86 for psychiatric populations and 0 81 for non-psychiatric ones The test-retest reliability for the 10 studies ranged from 0 48to 0 86 for the patient samples, and from 0 60 to 0 83 for the five non-psychiatric samples Factor analysis has revealed that three related

factors emerged sad mood/ negative sense of self, psychomotor retardation, and somatic depression Validity studies indicated the concurrent validities of the BDI with clinical ratings and the Hamilton Psychiatric Rating Scale &r Depression (HRSD) The mean correlation of the clinical rating with the BDI was 0 72 , and 0 73 with (HRSD) for psychiatric patients With the non-psychiatric samples, the BDI, with clinical ratings, was 0 60, and with (HRSD), it was 0 74 (Beck *et al*, 1988)

Historical background of the BDI

The original BDI was published in 1961 that was developed by Beck, Ward, Mendelson, Mock and Erbaugh (1961) The BDI was developed based on clinical observations about attitudes and symptoms manifested by depressed patients (Beck *et al*, 1986) These symptoms and attitude were shortened to 21 attitudes and symptoms that are scored from 0 to 3 that can reflect the severity of the categorized symptom (Beck *et al*, 1986) The scale, hence, was multiple choice for individuals who were instructed to chose the item in each category that best fits them at the current time (Mayer, 1977) The sum of the scores reflecting the total BDI score range from 0 to 63 To determine the severity of depression, the total BDI score obtained can be compared with the following standard cut-offs 0-9 indicates a normal non depressed person, 10-18 presents a mild to moderate depression, 19-29 reflects moderate to severe level of depression, 30-63 indicates a severe level of depression (Beck, *et al*, 1988) Several items had more than one response that reflected the same score For example, there were two statements under the mood category with the same scores 2a " I am blue or

sad all the time and I can't snap out of it", and 2b "I am so sad or unhappy that it is very painful" (Beack, 1972)

BDI-IA

A modified version of the BDI was developed in 1971, by Beck, Rush, Shaw, and Emery (1979) In the BDI-IA, the alternative wording (a and b described above) were eliminated (Beck, *et al*, 1988) Beck and his colleagues (1988) indicated that the BDI had been utilized in over 1000 researches Further, a number of studies have reported its psychometric properties The internal consistency of the BDI-IA with the coefficient alphas was 89 (Beck, Steer, Ball, & Ranieri, 1996) (see Beck, Steer, & Garbin, 1986, Beck, Steer, & Garbin, 1988) for reviewing the applications and psychometric properties of the BDI) In response to changes in the diagnostic criteria for the DSM-IV, the BDI-II was developed to replaced the BDI-IA In chapter 3, BDI-II will be described Generally speaking, the BDI has the ability to provide a good scale for screening purpose, or to measure severity of depression and changes in symptoms (Gotlib & Hammen, 1992)

The most frequently utilized instrument used to measure depression in Arabic culture is the BDI (Al-ansari, 2006) Accordingly, there are number of the BDIs in the Arabic version (e g , Al-Ansari, 2006, Al-Musawi, 2001, West & Al-Kaisi,1985)

A.2 The Center for Epidemilogical Studies Depression Scale

The Center for Epidemilogical Studies Depression Scale (CES-D) was developed by Radloff (1977) The scale consists of 20 items designed to

assess the current level of depressive symptoms for the non-psychiatric population (Gotlib & Hammen, 1992, Nezu, *et al*, 2000) The items measure depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, loss of appetite, sleep disturbance, and psychomotor retardation (Ensel, 1986) For each item, individuals select the symptoms that they have experienced in the past week on a four point Likert-scale ranging from "rarely or none of the time" (less than a day) to "most/all of the time" (5-7 days) Sixteen of these scales range from 0 to 3, reflecting a gradual increase in levels of frequency The other four scales range from 3 to 0, reflecting a gradual decrease in frequency Therefore, the sum total score of the CES-D can range from 0 to 60 The cut-off score for distinguishing a depressed person from a non-depressed one is 16 (Gotlib & Hammen, 1992, Nezu, *et al*, 2000)

The CES-D has shown a sufficient level of psychometric properties, since the internal consistency for the CES-D has been found to be 0 85 for the general sample, and 0 90 for the patient sample Stability over time for the CES-D was examined after 2, 4, 6, and 8 weeks The test-retest reliability ranged from 0 51 to 0 67 In other groups, the stability was examined at 3, 6, and 12 months The stability correlations for this group ranged from 0 32 to 0 54 (Radloff, 1977)

In terms of the validity of the CES-D, the CES-D was shown to have the ability to discriminate between psychiatric samples and general samples The CES-D scores for the psychiatric samples were significantly different from the CES-D scores for the general population The CES-D demonstrates also good concurrent validity, since the correlations between the CES-D and

the Hamilton Psychiatric Rating Scale (HRSD) was 0 44, and with the Raskin Three-Area Scale was 0 54 After four weeks of treatment, these correlations increased to 0 69 and 0 75 respectively The validity of the CES-D was also proven by the negative correlation between the CES-D and Bradburn Positive Affect scale and the low positive correlations with non-depression variables (medication, disability days, social functioning, aggression) Other evidence supporting CES-D validity was the finding that the more stressful events the participants experienced, the higher the scores in the CES-D obtained (Radloff, 1977) However, despite these findings regarding the CES-D levels of reliability and validity, there has been a recommendation that the CES-D should not be applied as a clinical diagnostic measure For instance, Lewinsohn, and Teri (1982) found only a 34% accuracy rate for the diagnosis of clinical depression (based on clinical interviews) among participants who obtained a score of 17or higher, while the accuracy rate for those who obtained a score of 16 or less and were diagnosed as non-depressed was 82% These findings have made researchers suggest that the CES-D should be employed merely as a screening method Similarly, Myers and Weissman (1980) and Robert and Vernon (1983) found that 40% of the individuals classified as depressed according to the Schedule for Affective Disorders and Schizophrenia (SADS) criteria had scores lower than 16 on the CES-D On the basis of these findings, Myers and Weissman considered the CES-D to be an effective screening method for research but not for clinical practice

The CES-D has been adapted to Arabic speakers and the Arabic version (e g , Ghubash, Daradkeh, Al-Aaseri, Al-Bloushi, Al-Daheri (2000)) shows reasonable reliability and reasonable discriminative and criterion

validity It should be noted that the researchers utilized only female participants

A.3 Zung-Self Rating Depression Scale

The Zung-Self Rating Depression Scale (SDS) was developed by Zung (1965) The items on the scale present categorized depressive symptoms found in the psychiatric literature These categories include psychic or affective disturbance, physiological or somatic disturbance, psychomotor disturbance, and psychological disturbance 20 items then was selected on the basis of verbatim records of the patients' interviews These items reflect the best representative of the symptom chosen (Zung, 1986) Ten of these items describe positive symptoms (e g , "My mind is as clear as it used to be") The remaining items describe negative symptoms (e g , "I feel downhearted, blue, and sad") The respondents select whether the symptom fits them little or none of the time, some of the time, a good part of the time, or most of the time The scores for the negatively described items range from 1 to 4, whereas the scores for positively described items range from 4 to 1 The total score of the SDS was obtained by summing the ratings from the 20 items The total scores ranged from 20 to 80 The interpretation of the SDS was as follows less than 50 indicates a the normal, non-depressed person, a score of 50-59 indicates mild depression, a score of 60-69 indicates moderate depression, and a score of 70 or higher indicates severe depression (Nezu *et al*, 2000) A split-half correlation for the even-odd SDS was 0 73 The alpha-coefficient was 0 92, which reflects the high internal consistency for the depressive symptoms (Zung, 1986) The validity of the

SDS was also supported For example, SDS has been found to have a significant correlation with the BDI (Schaefer, *et al*, 1985) However, it has been found that the SDS does not distinguish between the different levels of severity of depression among the depressed sample (Carroll, Fielding, & Blashki, 1973, Moran & Lambert, 1983)

The SDS has been adapted for Arabic speakers, for example, Kirkby, Al-Saif, Mohamed (2005) However, the researchers did not calculate the reliability and validity of the SDS except that the agreement between the participants' scores on the English and Arabic versions of the SDS was acceptable

B Scales of general mood or psychiatric symptomatology

These measures are not specifically a measure of depression, instead, they consist of a number of subscales that assess depression and one or more other psychiatric symptomatology The following section provides a brief description of some of these measures

B.1 Minnesota Multiphasic Personality Inventory-2 Depression Scale

The Depression scale (D-Scale) is one of the 10 Minnesota Multiphasic Personality Inventories (that were developed initially by Hathway and McKinley 1951 and revised by Butcher *et al*, 1989) The scale is 57 statements from which the respondents select true or false (Nezu *et al*, 2000) The research in D-Scale has indicated several limitations to the scale For example, Elwood (1993) indicated a concern regarding the sensitivity of

the scale and its positive predictive power, since the investigator found that the probability of obtaining a high score on the D-Scale for depressed individuals ranged from 0 19 to 0 42, while the probability that individuals who obtained a high score on the D-Scale had depression ranging from 0 23 to 0 38 Moreover, it has been indicated that elevations on the D-Scale are not easy to interpret, particularly since the scale is not a unidimensional construct (Nezu *et al*, 2000)

B.2 Costello-Comrey Anxiety and Depression Scale

The Costello-Comrey Depression Scale (CC-D) and the Costello-Comrey Anxiety Scale (CC-A) are designed by Costello-Comrey to measure individuals' predisposition to depression and anxiety separately, and to distinguish between these effects (Gotlib & Hammen, 1992) The items of this scale were developed on the bases of factor analysis for a number of items that were selected from the existing scales It has been found that the correlations between Anxiety Scale (CC-A) and Depression Scale (CC-D) range from 0 40 to 0 59 Items scales are rated on nine Likert point scales and are described positively and negatively The Depression Scale consists of 14 items With the non-depressed population, the split-half reliability was 0 90

B.3 Millon Clinical Multixial Inventory

The Millon Clinical Multixial Inventory (MCMI) was designed by Millon (1983) The scale includes 157 items that belong to 20 subscales The

subscales were designed according to the Diagnostic and Statistical Manual of Mental Disorders- third edition (DSM-III) for the Axis I syndromes and the Axis II personality disorder classifications The depression subscale divided from this inventory (MCMI-D) consists of 36 items from which the respondents chose true or false These items measure dysthymic disorder by measuring the cognitive, affective, and motivational symptoms of depression The coefficient alpha for the internal consistency was 0 78, and the stability of the scale was 0 66 The validity of the depression scale was supported by the finding correlations between the scale and other self-reported measures of depression For example, the depression subscale has been found to be correlated with the BDI and Hamilton Rating Scale of Depression (HRSD) (Goldberg, Shaw, Segal, 1987) However, Goldberg and colleagues (1987) reported that the depression scale does not measure depressive symptoms of vegetative, such as appetite and weight loss, libido disturbance, and sleep problems

B.4 The General Behavior Inventory

The General Behaviour Inventory (GBI) was designed by Depue, Slater, Wolfstetter-Kausch, Klein, Gopelrud, and Farr (1981) In developing the original version of the GBI, the researchers aimed to identify individuals who have a predisposition towards bipolar manic-depressive disorder, The items of the inventory characterize the severity, frequency, duration and rapid shifts that distinguish bipolar disorder The validity of the General Behaviour Inventory has been enhanced by the finding that individuals who were identified as being at risk of developing bipolar affective disorder on the GBI

showed a significant impairment in psychological functioning over a 19 month follow-up compared to a control condition (Klein & Depue, 1984) A revised version of the GBI was designed with the aim of identifying bipolar and unipolar individuals in a non-clinical sample (Depue, Krauss, Spoont, Arbisi, 1989)

The revised version of the GBI consists of 73 items that reflect all of the symptomatic behaviours related to depression, hypomania/mania, and biphasic fluctuations Each of these items is rated on a 4 point scale ranging from never or hardly ever, to very often or almost constantly Respondents receive two scores, one score presents the respondent`s total score for depression items, The other total score is for the combined mania, hypomania and biphasic items To estimate the respondent's diagnosis, the obtained scores can be plotted on two axes, representing depression and hypomania and biphasic score Then, using empirically derived cut-off scores, the unipolar and bipolar areas of the plot are demarcated It should be noted that, as the researchers indicated, obtaining high scores on the depression scale identifies frequently recurrent or chronic intermittent depression but not infrequently episodic depression

By employing five large samples, it has been found that the GBI coefficient alphas ranged from 0 90 to 0 60 for the BGI and depression and hypomania and biphasic Based on two studies, it has been found that the test-retest reliability at 12 to 16 weeks are 0 71-0 74 Depue and colleagues (1989) have found that the BGI had a high positive predictive power of 0 94 for bipolar and 0 87 for unipolar, and had a high negative predictive power of 0 99 and 0 93 for bipolar and unipolar respectively Further, the BGI had an

adequate sensitivity of 0 78 and 0 76 for bipolar and unipolar, respectively and it had a high specificity of 0 99 for bipolar and also 0 99 for unipolar Furthermore, it has found that the vast majority of unipolar and bipolar conditions was correctly identified based on their scores

B.5The Inventory to Diagnose Depression

The Inventory to Diagnose Depression (IDD) is a self-report questionnaire for diagnosing major depressive disorder according to DSM-III This measure was developed by Zimmerman, Coryell, Corenthal and Wilson (1986) in order to assess depression via a questionnaire The inventory contains 22 items related to depression symptoms Each item has five choices, graduating in severity and rated for duration also The coefficient alpha was found to be 0 92, and the Spearman-Brown split-half reliability coefficient was 0 91, while the correlations for the items' total Spearman rank-order ranged from 0 31 to 0 69 As evidence for the validity of the IDD, it was found that the IDD had a similar point-prevalence rate of major depression as that yielded by the Diagnostic Interview Scale (DIS) Further, the Kappa coefficients for the agreement between IDD and DIS was 0 51 and Y = 0 79 (Zimmerman, Coryell 1987) However, there has been a clear lack of psychometric data (Gotlib & Hammen, 1992)

As noted above, the instruments measuring depression rely on instructing the respondents to choose the items best fitting to them Unlike those measures, the following scales ask the respondents to select from a number of adjectives, that may be easier than using self-report measures with severe cases

2.6.1.2 The interview-based method

The other kind of instrument for measuring the severity of depression is the interviewer-rated measure of depression The interview-based method is a rating scale for assessing the severity of depression that is completed by a trained rater Spitzer and Endicott as cited in Paykel and Norton (1986), have classified this method into four modes The first is a questionnaire that is completed by an informant who can be one of the patient's relatives The second is a questionnaire that is filled in by a nurse depending on his/her observation of a naturalistic setting The third is filled in by a professional based on interviewing an informant The fourth type of interview-based method is a questionnaire that is completed by a professional depending on his/her interviewing the patient and rating what the patient says and what s/he has observed

Even though there are several situations that make clinical interviews more appropriate than self-rating (e g , measuring aspects of delusions, hallucinations, where the patient does not have insight), this method shows several limitations The first limitation is that a rater may be unable to rate the patient' own inner feelings or mood state (Paykel and Norton, 1986, Raskin, 1986) Furthermore, many raters have a tendency to chose middle judgments in instruments and to avoid extreme ratings, in addition to the halo effects, while nonprofessional and interviewers who have less experience of rating may demonstrate a preference to chose higher points than professional and experienced interviewers (Paykel and Norton, 1986)

Example of the interview-based method

The following section provides a brief description of the most widely used of such methods, that is the Hamilton Rating Scale for Depression

The Hamilton Rating Scale for Depression

The Hamilton Rating Scale (HRSD) for Depression, developed by Hamilton (1960), is the most frequently applied interviewer rated instrument for depression The HRSD consists of 21 items, assessing mood, behavioural, somatic, and cognitive symptoms (Gotlib & Hammen, 1992) 17 of these items are used to obtain the total score for the scale The remaining three items were excluded from the total score due to the infrequency of their occurrence The other item was excluded since it presents a diurnal variation of symptoms, hence it is not an additional source of suffering for the patient Two types of items are found in the HRSD, based on their scoring In the first type, items can be scored on a three point scale 0 (absent), 1 (doubtful or trivial, 2 (present) The other type of items can be scored on a five point scale in which the third grade (present) is divided into three levels 2 (mild), 3 (moderate) and 4 (severe) The inter-rater reliability for the total score has been found to range from 0 87 to 0 95 (Hammilton, 1986), while the internal consistency of the individual items and the total score has been found to range from 0 45 to 0 78 (Schwab, Bialon, & Holzer, 1967) Hammilton (1986) reported that the maximum difference between two raters regarding the total score is two points, whereas, for the mean, 20 points is 10% The validity of the HRSD has also been supported For example, it has been found that the HRSD was correlated with clinical global judgments (0 88) (Hammilton, 1986) It has also been reported that the correlations between HRSD and the

BDI ranged from 0 21 to 0 82, and those using the Zung Self Rating Depression Scale ranged from 0 38 to 0 62 (Nezu *et al*, 2000)

2.6.1.3 Measures of Depressive Adjectives:

As noted, instruments measuring depression that mentioned above rely on instructing respondents to choose items best fitting to them Differently from those measures, following scales ask respondents to select from number of adjectives, that may be easier than self-report measures with severe cases

A.1 The Depression Adjective Check Lists

The Depression Adjective Check Lists (DACL) was developed by Lubin (1965) The DACL consists of seven different lists of adjectives describing depressive feelings and elated mood Each list includes 32 or 34 adjectives, 22 positive adjectives (e g , fine, joyous, sunny) and 10 or 12 negative moods (e g , tortured, sad) The respondents are instructed to tick all of the adjectives that describe how they feel now - today (Gotlib & Hammen, 1992, Lubin & Levitt, 1979, Nezu, 2000, Tanaka-Matsumi, Kameoka, 1986) The respondents' scores present all of the positive adjectives endorsed added to all of the negative adjectives that have not been endorsed (Gotlib & Hammen, 1992, Nezu, 2000) The coefficients alpha has been found to be 0 91 Convergent validity was supported, in that the DACL was correlated with the Zung (0 54) and with the BDI (0 60) (Tanaka-Matsumi, Kameoka, 1986)

A.2 Symptoms Checklist-90-R

The Symptoms Checklist-90 (SCL-90) was developed by Derogatis, Lipman, and Covy (1973) The SCL-90-R consists of 90 items measuring symptomatic psychological distress to be applied with psychiatric and medical patients It presents an expanded version of the Hopkins Symptoms Checklist that emerged from the Cornell Medical Index Each item of the SCL-90 is rated on a five point scale ranging from 0 ("not at all") to 4 ("extremely") It includes nine primary symptoms dimension (anxiety, depression, hostility, interpersonal sensitivity, obsessive-compulsive, paranoid, ideation, phobic anxiety, psychoticism, somatization) Five of these symptoms' dimensions were designed on the basis of factor analyses, whereas the others were identified rationally There are also three global distress indices (general severity index, positive symptom distress index, and positive symptom total)

The depression scale in this checklist contains 13 items assessing several symptoms of clinical depression, such as feeling blue, feeling lonely, loss of pleasure, feelings of worthlessness, feelings of hopelessness, suicidal thoughts, and decrease in motivation The internal consistency coefficients (the Cronbach's alpha) was found to be 0 91 (Arrindell, Barelds, 2006), test-retest reliability for a week period of time was 0 82 and 0 75 for two weeks (Nezu *et al*, 2000) With regard to validity, separate factors for anxiety and depression were identified when factor analysis had been conducted (Morgan, Wiederman, & Magnus, 1998) Further, the SCL-90 has been found to correlate with the Wiggins Content Scale with a 0 75 correlation coefficient and with the Tyron Depession Scale with a correlation coefficient of 0 68 (Nezu *et al*, 2000) However, there has been a number of studies that have

failed to identify the nine primary symptoms dimensions on the SCL-90 (e g , Clark, & Friedman, 1983, Mazmanian, Mendonca, Holden, Duffon, 1987) Theses findings have led several researchers to suggest that the SCL-90 might best to applied as an indicator of general symptomatology, instead of the nine symptom subscales as claimed (e g , Mazmanian *et al*, 1987, Nezu *et al*, 2000) Further, there has been an indication that the SCL-90, the primary symptom dimension of depression, has not been validated adequately and that 86% of this subscale does not belong particularly to depression (Nezu *et al*, 2000) Furthermore, the primary symptom dimension of depression has been found to lack the required specificity and sensitivity (Choquette, 1994)

A.3 Profile of Mood State

The Profile of Mood State (POMS) was designed by McNair, Lorr, and Droppleman (1971) to measure short-term changes in six primary mood states The dimensions of this scale emerged from factor analyses These dimensions include tension-anxiety, depression-dejection, anger-hostility, confusion-bewilderment, vigour-activity, and fatigue-inertia The POMS consists of 65 adjectives describing the respondents` feelings over the past week Each item of the scale is rated on a five point scale, ranging from 0 ("not at all to") to 4 ("extremely") for a one week period of time Some of these adjectives describe a positive mood (e g , alert, carefree, relaxed), while others reflect a negative mood (e g , sad, bushed, terrified)

The Depression-Dejection scale includes 15 adjectives describing depressed mood accompanied by a feeling of personal inadequacy The

score of the POMS can be obtained by summing the responses to the Depression-Dejection scale (a similar procedure can be applied to obtain the scores on other scales) The total Mood Disturbance score can be computed by summing the scores of the five negative mood scales and subtracting the Vigour scale The consistence coefficient (Cronbac alpha) for the Depression-Dejection scale was found to be 0 95 Stability over time (test-retest reliability) has been found to be 0 74 The validity for this scale has also been supported (Nezu *et al*, 2000) For example, the Depression-Dejection scale was correlated with the BDI (0 61) and with the MMPI-D scale (0 65) However, there has been an indication that, despite the extensive applications of the POMS in measuring overall emotional distress, it may be less sensitive and precise in measuring depressive symptoms relative to scales developed specifically to measure these symptoms (Nezu *et al*, 2000)

2.6.2 Measures for Diagnosing Depression in Adults

In order to diagnosis individuals according to the DSM or ICD for major depression, individuals need to be interviewed Thus, several standardised interviews have been developed to ensure similarity and communibilty among studies investigating the same disorders (Hammen, 1997) What follows is a brief description of these diagnostic methods

2.6.2.1 The Schedule for Affective Disorders and Schizophrenia

The Schedule for Affective Disorders and Schizophrenia (SADS) was

designed by Endicott and Spitzer (1978) The SADS includes several diagnostic categories, such as depression, schizophrenia, anxiety disorders, and substance use disorders There have been three versions of the SADS The standard version, the lifetime version, the change version (SADS-C was developed to measure symptoms and functioning within the past week), and a variety of versions (that were modified to measure a particular syndrome, such as bipolar mood disorders) The standard version that is most widely used in clinical practical (Gotlib & Hammen, 1992) was developed to measure the severity of psychiatric symptoms It includes two parts, the first part measures the severity of the current conditions and the severity through the last week, while the second part of the standard version consists of interview questions that measure the frequency, intensity, and duration of the conditions On the bases of the interview, symptoms can be categorised into categories of symptoms associated with current functioning along with functioning within the last week In the United States, the SADS has been used to as the major instrument to establish depressive diagnoses (Gotlib & Hammen, 1992)

The dimensional measures of depression in the schedule consist of questions about 30 items that reflect depressive mood, ideation, or syndromes that characterized the current episode of illness (e g , brooding, feelings of self-reproach or guilt, discouragement or pessimism) The majority are rated on 1 to 6 point scales The SADS scored items are summarised into the following groups depressive mood and ideation include five items, endogenous features, that involves melancholic, vital, or vegetative factors, is 13 items, depressive syndromes of related features consists of 12 items, and

suicidal ideation and behaviour contains four items The SADS-C scored items are summarized to depressive syndrome and endogenous features The inter class correlation coefficients for these four summary scales of depression ranged from 0 95 to 0 97 The consistence for the coefficient alpha ranged from 0 78 to 0 87 (Endicott, 1986) In terms of validity, it has also been found that the SADS scales were moderately correlated to Checklist-90-R (Nezu *et al*, 2000)

2.6.2.2 Diagnostic Interview Schedule (DIS)

The Interview Schedule was designed to be applied on a large scale to be used by lay trained interviewers instead of clinicians It was developed by Robins, Helzer, Croughan, and Ratcliff (1981) There have been several revisions of the DIS in order to be compatible with DSM It has a high structure and can be scored by computer (Nezu *et al*, 2000) The test-retest kappa was found to be 0 63, Due to the difficulty in conducting comparisons between the DIS and other measures (as the scales covering DSM diagnosis are few), its validity has been determined by comparing the results obtained from the lay interviewers and the results obtained by trained psychiatrists The findings indicate that there were no differences between the two types of rater The DIS has been found to have high sensitivity (80%) and specifity (84%) for a lifetime diagnosis of depression (Robins, Helzer, Croughan, and Ratcliff, 1981) In the United Kingdom, the Present State Examination PSE was developed by Wing, Cooper, and Sartorius (1974) The PSE consists of 140 items that cover variety of symptoms in different disorders

2.6.2.3 Structured Clinical Interviews for DSM-IV Axis I Disorders

The disorders covered by the Structured Clinical Interview include major DSM-IV Axis I diagnostic categories, such as mood disorders, anxiety, disorders, eating disorders, somatoform disorders, and substance use disorders and psychoses (Hammen, 1997)

2.7 Psychological Theories of the Causes and Treatment of Clinical Depression

There has been a number of psychological theories that attempted to answer the question t why do some individuals become depressed while others do not? Each of these models offers practical technique to treat depression on the basis of its hypotheses To make it easer to follow each of these theories, below, each model`s hypotheses, accounting for depressive phenomena, will be described briefly, followed by the technique that is assumed to treat depression, where possible

2.7.1 Psychoanalytical Theory

A The Psychoanalytical Approach of Depression

One of the earliest psychoanalytical theories of depression refers to Abraham`s postulation that individuals who are more vulnerable to depression are characterized by ambivalence towards other individuals by having positive and negative feelings reciprocally (Gotlib & Hammen, 1992) Abraham attributed this ambivalent characteristic to the problematic

relationship with an object in early life (Mendelson,1990) This problematic situation results in a fixation on the early life of the oral stage As a result of experiencing this fixation on this stage, those individuals show an exaggerated dependency, needs and frustrations related to oral behaviour (e g , eating, talking, drinking, kissing) When individuals who are vulnerable to depression confront loss or disappointment in later life, their feelings of hostility reappear, resulting in melancholia. The initial direction of the hostile feelings is towards others (e g , I hate them), but, due to projecting them onto others (they hate me), they become internalized and directed towards the self Therefore, Abraham considered feelings of guilt as a reflection of the unconscious destructive wishes of depressed individuals and their loss of appetite as a defence mechanism that opposed the hostile wishes to incorporate the loved object (Fenichel, 1946)

Abraham built his theory of depression on the psychosexual development stages and instinctual fixation However, it is unclear whether all individuals experience these stages in their development or whether some individuals in some cultures experience these developmental stages Further, Freud in assuming these psychosexual development stages, did not follow an empirical procedure by which Freud could validate this hypothesis (Hall & Lindzey, 1957)

The other psychoanalytic perspective regarding clinical depression refers to Freud Freud, in his publication "Mourning and Melancholia", considered depression to be painful mind states In both of these states, Freud assumed that a lost object is a central element in mourning and melancholia The object can be a person, ideal or function (Becker, &

Kleinman, 1991) However, in melancholia that lost object affected one`s self regard, even though, in some cases, a patient does not virtually know what s/he has lost The lost object has been relegated to the unconscious, whereas, in mourning, the lost object is conscious

Another difference between melancholia and mourning, as mentioned by Freud, is that the loss in melancholia impacts seriously on one`s self regard, whereas, in mourning, it does not exist In mourning, the external world has become poor and empty, while, in melancholia, the internal world, which is one`s ego, has become poor and empty (Gilbert, 1984) In other words, in mourning, there is truly the loss of an object, as a result, there will be feelings of the external world being empty and impoverished, while, in melancholia, there is an emotional loss of an object This loss occurs as a result of disappointment, hate or other associated factors Thus, melancholia develops from turning aggression inwards upon the subject`s self instead of turning it towards the person who is the object of these feelings Feelings of hate and disappointment related to this person cannot be turned upon him, as this is forbidden or unacceptable Yet, since these aggressive feelings need to be released in some way, the subject turns these feelings inwards on himself (Freden, 1982)

However, several limitations have been reported with Freud s view regarding the causality of depression For instance, it has been indicated that Freud considered aggression to be a unitary phenomenon, while virtual aggression can be manifested in various forms, such as rage (Gilbert, 1984) Moreover, although low self-esteem characterizes depression, as mentioned above, it may be a symptom of dysfunctional thinking, for example, as Beck

assumed (Beck, 1972), rather than aggression towards the self, as Freud claimed Moreover, Freud`s method has generally been criticized due to the lack of empirical procedures, relying on patients` talk without supporting it with external evidence, and avoiding any quantitative data, making it impossible to weigh the statistical significance and reliability of his observations (Hall & Lindzey, 1957). This lack of statistics has led several investigators to consider psychoanalysis theories as belonging to art rather than science (e g , Mendelson, 1990)

Rado, the other psychoanalyst, postulated that depression-prone individuals are highly dependent for their self-esteem on the love, attention, approval, and recognition of other people rather than on their own their achievements (Mendelson, 1990) Since depressed individuals rely upon others, they suffer more than non-depressed individuals when they face disappointments and frustrations in their social environment These disappointments and frustrations lead initially to hostility that is directed towards others in the depressive individuals` environment Then, the depressed individuals try to regain the support of others through depressive symptoms, such as self-denigration If depressive symptoms fail to win back the lost love and affection, these symptoms escalate into self-punishment, and feelings of repentance, guilt, and depression Therefore, according to Rado, depression reflects an attempt of regain self-esteem after experiencing a major loss (Gotlib & Hammen, 1992)

Unlike other psychoanalysis theorists, Kline does not stress the importance of early traumatic events, such as losses Instead, Kline emphasised the importance of the quality of the mother-child relationship in

the individual's first year of life She assumed that, when a child did not experience feelings of being good, loved and secure, it would fail to overcome its ambivalent feelings towards its loved objects in addition to always being at risk of developing depression (Gotlib & Hammen, 1992)

Kline postulated that all children pass through a normal developmental stage that is called the depressive position This stage is characterized by feelings of sadness, fear and guilt The child feels frustrated due to the shortage of love, for which it is impossible to meet its demands at this stage As a result, it becomes angry at the mother and, in turn, develops destructive and sadistic fantasies that are directed towards her Consequently, feelings of fear emerge as these fantasies will destroy the mother, and, ultimately, feelings of anxiety and guilt will arise Since the child is unable to distinguish between the external world (the mother) and the internal worlds (the self and the child's fantasies regarding the mother), the feelings of fear of the mother becomes partly the feeling of fear of destroying the self This is the stage that Kline called the depressive position

In normal case, the child realizes that the mother whom he hates (the bad object) and the mother whom he loves (the good object) are in fact one (a whole object) This type of realization results in a satisfactory resolution of the depressive position On the other hand, a failure to combine these two parts (a failure to establish a good internal object), since the feelings of aggression and hatred are stronger compared with feelings of love, leads to forming the basis for the development of depression in later life (Mendels, 1970)

Thus, according to Kline, the predisposition towards depression is

formed in early life Subsequently, similarly to Freud, Kline gave a crucial role to the childhood stage in predisposing to depression and viewed depression as directing hostile feelings towards the self However, her hypotheses are far more instinct-related than those of Freud, although they have been criticized for being impossible to test (Gilbert, 1984) Moreover, there has been an indication that there is no relationship between developing clinical depression in childhood and developing depression in later life Furthermore, many theorists have not accepted the view that the adult's reactions, values, and emotions depend on the child's psyche (Mendels, 1970)

Jacobson, the other theorist, emphasised the importance of self-esteem as central in depression (Mendelson, 1990) Jacobson (1972) suggested that fusing the self and object-representations in early life leads to self-condemnation and self-reproach, distinguishing depression Anger and hostile feelings are directed towards the lost object and its internal representations Yet, since the self and the internal representations cannot be distinguished, the anger and hostility initially directed towards the lost object are experienced as self-condemnation and self-hate

B Psychoanalytic therapy of depression

Bempormad (1990) outlined the main elements of the psychoanalytical therapy of depression This technique takes long time in order for the therapy's aims to be achieved The main focus of psychoanalytic therapy is the changes occurring in the patients' personality structure rather than in ameliorating the depressive symptoms These symptoms are assumed to be treated indirectly When patients become able to withstand the experience

(e g , loss, frustration) that had produced decomposition, they will experience fewer and less severe symptoms Changes in personality structure are assumed to be achieved via analysing the patients` resistance and transference These terms (resistance and transference) are considered to be psychoanalytical therapy's basic elements Resistance is defined as "individuals largely unconscious method of impeding the conscious awareness of his intrapschic world", while transference is defined as the "unconscious misrepresentation of people in current life to conform to characteristics of individuals who were significant in the past" (Bempormad, 1990, page, 297)

Psychoanalysis therapist argue that, even though each individual has his/her own idiosyncrasies, vulnerabilities, defences, distortions, and a particular past history and current situation that make the generalization of a course of therapy difficult, there are several characteristics that can be shared by depressed individuals One of the most important aspects of psychoanalytical therapy is the relationship between the therapist and the patient Although the therapist is expected to be warm and encouraging, s/he makes the patient realize that the success of therapy relies on the patient himself/herself

One aim of psychoanalytical therapy is to make patients aware of the causes of dysphoria This insight includes also helping patients to refer the precipitating factors for their depression to a particular organization of personality For example, losing an ideal, disappointment, or rejection appear to be provoked factor, and threaten a needed sense and source of narcissism Further, during this process, the patient becomes aware that

his/her depressed mood does not refer to factors outside him/her, but is related to factors existing within the patient and, hence, it is under his/her control

Although the patient will gladly leave the symptoms, s/he resist changes in the personality that represents the foundation of these symptoms If establishing a therapeutic relationship that is characterized by openness and realistic expectations, the realization that the depression resulted from a pre-morbid personality organization, and connecting the precipitating factors with the depression presents the major objective of the first stage of therapy, then overcoming the patient's resistance comprises the middle stage of psychoanalytic therapy The therapy at this stage includes a repeated identification and interpretation that these depressogenic thoughts and evaluation refer to the life of the patient

Transference is the other underling theme that interferes with the psychotherapy setting The patient transfers his/her feelings related to significant figures in his/her early life This transference is characterized by a sense of low self-regard and the compensatory need for external reassurance of worth by the therapist The analytical relationship regularly interferes with a sense of fear of rejection, abandonment, and brutal criticism These negative expectations echo the present possibility of a narcissistic injury that was experienced in childhood stage

The other theme that is regularly experienced by the depressed patient during psychoanalytic therapy sessions is a feeling of anxiety These feelings refer to a horrifying fear that the gratifying of desires will lead to abandonment and criticism Pleasure anxiety is experienced if the patient

was not given permission to express their sense of exuberance Further, if gratifying their normal hedonism in their early life was met with disapproval from parents Therefore, seeking personal satisfaction is considered to be evidence of a severe disloyalty to the family and betrayal of the welfare of others Activities that done just for the fun of it were perceived as a terrible self-indulgence that will affect negatively the wrath or will result in the loss of needed others

When patients show improvements, they allow themselves to engage in several hobbies or become able to do things simply for the fun of it Even though engaging in such activities initially causes anxiety and shame, a sense of freedom and inner contentment develops slowly This development refers to the patients' realization that gratification does not lead to catastrophe but to the therapist's approval rather than condemnation of these activities As progress is achieved, the roots of previous applause to independence related to the childhood stage are explored and discussed in the light of current experiences Once patients understand that, when they become mature, there is a degree of freedom and independence from the control of significant others, they are moving towards achieving change

The third and final stage of treatment consists of two tasks The first task deals with the environmental barriers to change When patients change their behaviour and values due to therapy, the significant others around them may reject these changes (e g , colleagues, employers, spouses) Although these individuals need patients to be cured and not to suffer from clinical depression, they do not want to surrender the type of relationship with them to which they have become accustomed

The second task of this final stage deals with the patient's significant figures in the past Patients usually experience a rapid transition from an idealization of past figures to a bitter resentment of these same people Patients will be assisted to realize that pathogenic behaviour from others produced their own pathology Further, the patients will be assisted to understand that those childhood idols were just ordinary people, who have several limitations and positive sides as well Furthermore, the patients should appreciate their premeditated participation in repeating their childhood state in adult life, regardless of how they were treated in their childhood life

A number of changes will be manifested and will be considered as signs of improvement These changes are related to the patient's of sense of independence and ability to experience meaning and pleasure from daily activities For example, creativity reflects the confidence to try new activities Spontaneity bespeaks the ability to behave without thinking about how others will judge one's behaviour The changes include relinquishing, viewing things as all or nothing, increasing interest in others, not as supplier to their self-esteem but rather because they are important and interesting in themselves, experiencing true empathy that bespeaks considering others as similar to but separate from themselves As a result of these examples of changes, therapy will be seen as an endeavour that includes sharing and learning instead of being a constant struggle to gain the necessary feedback through a transferred distorted relationship

The outcome of research studies examining the efficiency of psychoanalytical therapy in treating depression was different For example, Mclean and Hakstain, (1979) have found psychoanalytical therapy to be as

effective as pharmacotherapy but less effective than behaviour-cognitive therapy

2.7.2 The Behavioural theory:

A The Behavioural Approach to Depression

Contrary to the psychoanalytic theories that emphasize the importance of early childhood experiences and intrapsychic processes, behavioural theories stress the importance of environmental factors and explain depressive symptoms according to learning principles. For instance, Skinner considered depression to be a result of weakening behaviour produced from the disruption of a chain of behaviour that had been positively rewarded by the social environment Skinner indicated this to be an extinction schedule (Downing-Orr, 1998, Gottlib & Hammen, 1992)

In replication in Skinner' s point of view regarding the extinction schedule, Fester (1973) postulated that depression occurs when individuals experience a decline in positive reinforcement Depressed individuals find it difficult to adapt to this reduction in reinforcement Fester assumed that several factors account for this lack of capability to accommodate this change a sudden change in environment, a changing need to establish new sources of reinforcement, behaving in a way that reduces the opportunity for positive reinforcement, behaviour may not be socially appropriate and subsequently lead to a decline in positive reinforcement, and that this behaviour resulted from inaccurate observation To provide a clear explanation of the process of generalization of the responses to the particular

loss of positive reinforcement, Fester developed the concept of chaining Fester reported that losing an essential source of reinforcement produced a decline in behaviours that were chained to this source or organized around it For instance, losing one's job can result in a reduction in the behaviour chained (related) to working (e g , waking early in morning, seeing friends or colleagues), if these behaviours are organized around work that presents the essential source of reinforcement

Costello, who also discusses the behavioural approach, assumed that losing a single source of reinforcement cannot simply explain depressive symptoms Instead, Costello suggested that depressive symptoms resulted from an interruption to the behaviour chain This interruption may occur due to the loss of one of the reinforcements in the chain He added that the efficiency of the reinforcer relies upon the completion of all of the contents of the behaviour chain Accordingly, when an interruption occurs in a chain of behaviour, there is a loss of reinforcer effectiveness related to all of the chain s contents Costello stated that the general loss of interest in the environment associated with depression reflects this decline in the effectiveness of the reinforcer (Downing-Orr, 1998, Gottlib & Hammen, 1992)

Lewinsohn and his co-workers were also the behavioural theorists who emphasised the crucial role of environmental reinforcement in developing depression For example, Lewisohn, Youngren, and Grosscup (1979) suggested that the decline in the rate of "response-contingent positive reinforcement" results in dysphoria and a low in behaviour produced by experiencing depression Three factors have been assumed to lead to a reduction in the rate of "response-contingent positive reinforcement" The first

factor indicates that the events previously eliciting reinforcement are no longer reinforcing Secondly, the events that are reinforcing become non-existent Finally, the events may exist, but individuals do not have the capability to obtain them due to a shortage in the requirements that are necessary to elicit the reinforcer Several outcome studies are consistent with this theory For example, MaccPhillamy and Lewinsohn (1974) found that depressed individuals have lower levels of reported pleasure from positive events, general activity, and perceived potential for reinforcement relative to normal and psychiatric controls Lewinsohn *et al* (1979) found that, following treatment, depressed individuals experienced improvements in their scores on the Pleasant Events Schedule and the Unpleasant Events Schedule The findings from a number of studies (e g , Grosscup & Lewinsohn, 1980, Lewinsohn & Graf, 1973, Lewinsohn & Libet, 1972, Rehm, 1978) revealed a positive correlation between mood level and pleasant events and a negative correlation with unpleasant events

However, by focusing extensively on overt behaviour, the behavioural theories ignore the crucial role of some covert behaviours, such as perception Thus, depression may not be caused by a loss of positive reinforcement itself but, rather, it may be how loss is interpreted or perceived Highlighting this assumption is the fact that, in reality, not all individuals who lose their jobs or an ideal (for instance) become depressed Yet, it seems plausible that those who perceive the loss of the job as a catastrophe are more likely to become depressed In addition, these theories make individuals passive organisms, controlled by their environment Further, by concentrating on the here and now, behaviour theories have not paid

attention to the issue of whether or not there are depression-prone individuals Thus, some individuals may be more likely to become depressed after losing a reinforcer than others

Despite the superficial disagreement between the psychoanalytic theories and the behavioural theories on why depressive experience occurs, both theories agree in stressing the concept of loss (whether of a loved object or a positive reinforcement) as a cause of depression

B Behavioural treatment of depression

Behavioural techniques for depression consider depressive behaviour as the result of environmental contingencies, that its consequences result in maintaining these behaviour Hence, changing the contingencies will produce changes in behaviour (Williams, 1984) These techniques also share certain strategies for the treatment of depression, such as the conceptualization of the presenting problems, the monitoring of mood and activities, progressive goal attainment and behavioural productivity, contracting and self-reinforcement, specific skills-remediation and therapeutic decision making, in addition to other commonalities, such as the time limit for the therapy sessions, evaluating outcomes, and patient compliance with the therapeutic approach, which play a crucial role in actualizing changes in behaviour (Hoberman, 1990) There follows a brief description of some of the behavioural techniques described by Hoberman (1990)

B.1 Increasing pleasant activities and deceasing unpleasant ones

As mentioned above, Lewinsohn and his colleagues postulated that depression occurs as a result of the reduction in the rate of response-contingent positive reinforcement As a psychological method for treating depression, Lewinsohn and his colleagues have developed a highly structured behavioural programme that aims to change the quality and the quantity of the interaction of the depressed patients with the environment through 12 sessions Via these sessions, the patients are directed towards increasing positive interactions and decreasing negative interactions To help to identify these pleasant and unpleasant activities, an activity schedule has been designed This schedule consists of 80 items rated by the patient, that present the most pleasant and frequent activities and another 80 items rated by the patient as the most unpleasant and frequent activities Patients are instructed to monitor every day the occurrence of pleasant and unpleasant activities of their related mood The patients continue this type of monitoring for the duration of the treatment On the basis of this monitoring, the treatment is administered in two stages In the first stage, the patient is provided with assistance in order to decrease the frequency and subjective aversion of unpleasant events in their life In the second stage, the focus is on increasing pleasant events

B 2 Reducing the intensity of unpleasant events

To reduce the intensity of unpleasant events, patients are taught to mange these events One way to help patients to achieve this goal is through introducing relaxation training Several aims relaxation training can be helpful

in achieving them For example, reducing anxiety and tension is considered to be a way to increase the aversion to unpleasant events and decrease the patients` enjoyment of pleasant events, attenuating their ability to think clearly This ability is needed for decision making, planning, and learning new skills Further, relaxation training can promote several positive components in the therapeutic process Another way to manage the unpleasant events involves teaching the patients several cognitive skills that are required to be practiced to maximize its benefits These cognitive skills are assumed to result in changes in the way in which patients think about reality The patients can identify the locus of controlling their thoughts, monitor their thoughts, their connection to environmental events, and their daily mood Additionally, patients learn to discriminate between positive and negative thoughts, necessary and unnecessary thoughts and constructive and destructive thoughts Examples of cognitive self-management techniques include thought stopping, pre-making positive thoughts, the self-talk procedure, and scheduling a worrying time

B.3 Reducing the frequency of unpleasant events

To reduce the frequency of aversive events, three groups of techniques can be utilized stress management skills, reducing aversive social interactions, and facilitating time management To provide patients with stress management skills, patients are taught to identify the objective signs of dysphoria in the early phase of the provocative sequence Thus, patients increase their awareness of impending aversive events and their impacts on them In addition, patients are prepared cognitively, whereby they are

provided with the skills needed to deal with negative events and to prepare for aversive encounters These skills involve, for example, self-instruction, in vivo relaxation, and problem-solving skills

Two aspects of the patients' interpersonal relationships are included in the techniques that aim to assist the patients to change the quantity and the quality of their interpersonal relationships The first aspect involves assertion and the second includes the interpersonal style of expressive behaviour In terms of assertion, a covert modelling procedure is utilized in a chain consisting of instruction, modelling, rehearsal, and feedback. After presenting the concept of assertion, patients read Your Perfect Right (tdeveloped by Alberti and Emmons) and, with the therapist, develop a personalized list of stressful situations Then, the therapist models several assertive possibilities for patients Next, the patients are encouraged to rehearse assertiveness by utilizing the covert modelling procedure In later sessions, assertiveness is practiced vividly and monitored

The interpersonal style of patients' expressive behaviour contains the same sequence, instruction, modelling, rehearsal, and feedback On the basis of the pre-assessment problems and preferences of the patients, the patients and the therapist determine goals that are easy to achieve Goals typically include responding positively to others, reducing complaints, increasing the level of activity and discussion, and changing other verbal behaviour

The third technique in reducing the aversion of the unpleasant events is daily planning and time management training Depressed individuals typically lack the ability to use their time effectively, they do not plan in advance in

order to be prepared to take advantage of opportunities for pleasant events The training aims to help patients to achieve a better balance between activities they like to do and activities that they feel that they have to do Patients are instructed to pre-plan daily and weekly by utilizing a time schedule

B.4 Increasing pleasant activities

The second stage of treating depressed individuals behaviourally involves increasing the number of pleasant activities To increase the patients' rate of engaging in pleasant activities, weekly and daily goals will be determined for the patients to achieve Patients are taught to isolate events, behaviour, and feelings that are linked with the enjoyment of doing activities and to employ several techniques (e g , relaxation, cognitive techniques, social skills) to increase their enjoyment of engaging in these activities The number of these pleasant activities is increased gradually and the impact on their mood is monitored by themselves Patients are encouraged to increase their pleasant social activities that have a particularly strong relationship to a more positive mood Both patients and psychotherapists set goals for this increase on the basis of the patients' current frequency of social activity These goals are systematically increased

Reinforcement therapy has received inconsistent support While Lewinsohn and colleagues (1979) found that the rate of positive reinforcement increased as a result of improvements in depression level, and the rate of experienced aversion declined when the level of depression decreased, Wilson, Goldin and Charbonneau-Powis (1983), however, found

that the reduction in depression was not associated with an increase in pleasant activities Further, in a study conducted by Zeiss, Lewinsohn, and Munoz (1979), the findings indicate that patients who received cognitive therapy and those who received social skills training showed similar increases in their rate of pleasant activities to that demonstrated by patients who received instructions to increase their rate of pleasant activities

B.5 Social skills therapy

Based on the finding that depressed individuals lack social skills (e g Libet & Lewinsohn, 1973, Youngren & Lewisohn, 1980), several investigators have developed a behavioural technique that emphasizes clearly the training in social skills (Gotlib & Hammen, 1992) One approach (the so-called Social Skill Training SST) postulated that depressed individuals have either lost their social skills as the result of anxiety, the psychiatric illness course, or hospitalization, or never acquired them in their behavioural repertoire Subsequently, treatment aims to re-educate or educate depressed individuals utilizing instruction, feedback, social reinforcement, modelling, coaching, behavioural rehearsal, and graded homework assignments

The therapeutic intervention is based on a precise behavioural analysis of social skill deficits The treatment usually consists of 12 weekly sessions, followed by six to eight booster sessions across a six-month period Due to the connection between social skills and particular situations, training covers four social contexts with strangers, with friends, with family members or in hetero-social interactions, at work or school In each of these situations, particular social problems are identified and dealt with a symmetric increase

in difficulty It is postulated that treatment in these different social contexts will generalize social skills over different situations There are three types of social skills considered to be the main focus of social skills training, these skills are seen to be related to depression The three social skills include positive assertion, negative assertion, and conversational skills Positive assertion involves expressing positive feelings towards others Patients are instructed to give compliments, express affection, offer approval and praise, and offer obligation The most important element in this approach is that of responding at appropriate times with appropriate nonverbal components

Negative assertion presents the expression of displeasure and claiming individuals' own rights As training in this skill, individuals are instructed to refuse unrealistic requests, ask others for new behaviour, compromise and negotiate, or show disapproval or annoyance The aim here is show that the reactions of others are less negative than expected and less painful than being passive and submissive

The third social skill that is relevant to depression and presents another focus of this treatment is conversational skills These skills involve the ability to start, maintain, and end conversations Patients are trained to avoid sick talk and to become more positively reinforcing towards others

For the deficit in each of these areas, the training programme aims at teaching depressed patients specific response skills Further, patients are encouraged to practice the new skills both within therapy sessions and outside therapy Finally, patients are trained to evaluate their responses more objectively and to utilize appropriate self-reinforcements

A study by Bellack, Hersen and Himmelhoch (1981) provided evidence

supporting the beneficial impact of social skills training on depression, since the researchers found that social skills training plus a placebo was as effective as amitriptyline alone or psychotherapy plus placebo Moreover, it has been found that the lowest dropout rate was among patients who received social skills training plus a placebo Additionally, Bellack and his colleagues found that the greatest proportion of patients who showed improvements was among patients in social skills training plus a placebo as well McLean and Hastian (1971) compared the effectiveness of this behavioural therapy with insight-oriented psychotherapy along with drug therapy, and relaxation therapy The investigators have found that behavioural therapy was superior to the other treatment on nine of the ten measures that were completed immediately after treatment Further, Similar to Bellack *et al* (1981), the drop-out rate was the lowest among the patients in the behavioural therapy Over the following 27 months, patients treated with behavioural therapy have been found to demonstrate improvements in mood, and to become more socially active and more personally productive compared to patients in the control treatment condition (relaxation therapy), whereas the patients in the other treatment conditions did not display any differences from those in the control treatment condition Furthermore, the patients treated with behavioural therapy were the strongest in three of the six outcome measures, while the pharmacotherapy patients performed best on one of the six measures and the patients on the psychotherapy condition on none of them Further, Reed (1994) partially provided evidence of a supportive social skills training intervention, finding that social skills training resulted in a reduction in depression for males but not for females

Despite the finding that social skills training results in increasing assertiveness and improving social performance, the relationship between social performance and improvements in depressed mood remain unclear, as the existing studies did not demonstrate that social skills training per se led to a reduction in depression (Emmelkamp, 2004)

B.6 The coping with depression course

The coping with depression course (CWD) is a psycho-eductional group technique for treating depression (Hoberman, 1990) The major element in this model is teaching patients techniques and strategies to assist them to cope with the problems that are assumed to be related to their depression Therefore, patients obtain the necessary knowledge and skills via a strong relationship with the therapist (Hoberman, 1990) Brown and Lewinsohn (1984) provided a description of the coping with depression course The CWD is structured as a 12-session received over eight weeks During the first four weeks of treatment, the sessions are held twice a week During the final four weeks, sessions are held once a week There are also class reunion sessions that are held after a month and after six months These follow-up sessions aim to encourage patients to maintain their treatment attainments

The first two sessions focus on explaining the social learning perspective of depression, and instruction in basic self-change skills, such as determination, baseline, the setting and utilization of a self-change plan, and the evaluation of progress) The next eight sessions focus on teaching skills in four specific areas relaxation training, increasing pleasant activities,

changing aspects of one's thinking, and improving the quality and quantity of social interactions Each of these areas is explored over two sessions During these sessions, the patients learn to utilize each of these skills and to personalize them to suit their specific situations In the last two sessions, the patients are helped to generate a life plan that contains the most useful skills gained that they intend to utilize in the future to avoid depression

The course involves the class modality and individual tutoring modality The class modality is devoted to lectures, assignments review, discussions, role playing, and practicing the skills that were acquired through the programme The individual tutoring modality sessions include the same elements as in the class group

A number of studies have provided findings that support this technique For instance, Brown and Lewinohn (1984) found that the CWD course was better than a wait-list control condition and was as effective as individual therapy Hoberman, Lewinsohn, and Tilson (1988), and Steinmetz, Lewinsohn, and Antonuccio, (1983) also found the CWD to be effective in reducing depression

2.7. 3 Cognitive Theory of Depression

In contrast to the behavioural theories that emphasize overt behaviours, cognitive theories of depression take into account covert behaviours such as beliefs, attitudes, memories, self-statements, images (Gotilb & Hammen, 1992) Within these, the theories that attract most theoretical and empirical attention will be described below

2.7.3.1 Beck's cognitive theory :

A Beck's cognitive theory of depression

According to Beck (1972), there are three aspects that characterize depressed individuals, cognitive triad, cognitive distortions, and negative self-schemas The cognitive triad reflects a depressive way of thinking, in which depressed individuals manifest a negative view of themselves (e g , "I am a bad"), the world, and the future (e g , nothing will turn out well) This cognitive triad is reflected in depressed individuals perceiving their environment in a negative way and even when there may exist possible positive interpretations also Moreover, Beck (Beck, Ruch, Shaw, & Emery, 1979) regarded the cognitive triad as an explanation for a number of depressive symptoms, such as deficient functioning in affect, motivation, behaviour, and physiology

Cognitive distortions are characterized by exhibiting faulty appraisal processing Beck suggested that depressed individuals manifest systematic errors in their thinking that constitute at least six types arbitrary inference (drawing a conclusion in the absence of evidence and even ignoring the contrary evidence), selective abstraction (perceiving an event as negative by viewing only the negative aspects, even if they are the minority), overgeneralization (drawing conclusions from a single event), magnification and minimization (exaggerating the importance of negative events, while diminishing the significance of positive ones), personalization (maximizing or minimizing the responsibility for an event) and dichotomous thinking (black and white thinking)

Beck (1967) suggested that individuals who have a diathesis to depression develop particularly negative self-schemata in their early life

Even though these schemata may not be invoked at any given time, they are activated when those individuals face a stressor that is similar to that formulated the initial negative attitude The impact of these negative schemas on depressed individuals' perceptions and their formatting of their experiences is a cognitive distortion that results from the evocation of dormant negative attitudes towards the self When these schemata are activated, individuals are prone to interpret environmental stimuli as being consistent with these schemas to the extent that they may distort some of these stimuli in order to accomplish congruence Therefore, positive stimuli may be eliminated and negative stimuli may be maximized Based on that, negative schemata are given a significant role in predisposing an individual towards depression

In line with the cognitive theory, there has been empirical support to show that depressed individuals manifest a number of errors in their thinking that lead them to perceive their environment negatively (e g , Karoly & Ruehlman, 1983, Larson & Munoz, 1982, Rogers & Forehand,1983) However, there has been an indication that a negative view of the world does not exclusively distinguish depression, but rather can be observed in several disorders, such as anorexia nervosa, alcoholism, personality disorder, and some type of schizophrenia (Gilbert, 1984) Furthermore, even though there has been number of studies that found current depressed individuals to show automatic thoughts (e g , Barnett & Gotlib, 1988b) and more dysfunctional attitudes than non-depressed ones (e g , Dobson & Shaw, 1986, Eaves & Rush, 1984, Gotlib, 1984, Hamilton & Abramson, 1983, Hollon, Kendall, & Lumry, 1986, Olinger, Kuiper, & Shaw, 1987), the interaction between

stressful events and cognitive vulnerability in predicting depression has received inconsistent support For instance, while Barnett and Gotlib (1990), and Kuiper, and Shaw (1987) found that dysfunctional attitudes predicted depression, other researchers have failed to provide evidence to support the interaction between stressful events and cognitive vulnerability in predicting depression (e g , Barnett & Gotlib, 1988a, 1990)

Based on this brief review of Beck's cognitive theory of depression, it seems that the influence of psychoanalytical theory on Beck`s thinking still existed despite the fact that he himself abandoned this approach, for example, his stress on the impacts of childhood negative experiences Further, the indication that, when depression-prone individuals are exposed to stressful experiences, they perceive them as being congruent with their previous existed schemata This behaviour to some degree is similar to the projection process that was assumed by Ana Freud

B Beck's Cognitive therapy for depression

Several studies have demonstrated that cognitive therapy is at least as effective as pharmacotherapy (Clark, 1990) Beck believes that the depression is the problem that needs to be resolved since it results in such phenomena as a reduction in energy and pessimism (Gotlib & Hammen, 1992) Cognitive therapy has been defined as "an active, structured, psychoeducational treatment" (Newman, & Beck, 1990, p 346) Similarly to humanistic psychotherapies, cognitive therapy stresses the importance of establishing an empathic relationship between the cognitive therapist and the patient There follows a brief description of the general characteristics and

components of cognitive therapy, as reported by Newman and Beck (1990)

There are several components to cognitive therapy that describe the structure of each session Socializing the patient into the cognitive therapy model is one of these characteristics and components of cognitive therapy There are several processes that need to be conducted to achieve this aim, including creating a therapeutic rapport, determining the problem and the goals of treatment, and educating in the cognitive therapy model In order for these aims to be achieved, the therapist needs to establish an agenda for the session Although the therapist suggests the points that need to be covered in the session, the patient's comments are important in the setting of the final statement of the agenda

The other component of cognitive therapy involves identifying the automatic thoughts that are considered to be a mediator between environmental events and the individual's emotional responses to these events In the early sessions, the patients are thought about their automatic thoughts To help patients to identify these thoughts, the patients are asked to use their emotional state (that reflects their upsetting feelings, such as sadness, hopelessness, anger) as a cue to ask themselves the following question "What am I saying to myself right now that could be causing me to feel so badly?" Patients are encouraged to write down their automatic thoughts, which ultimately assists them to concretize their upsetting ideas and, thus, start to find alternative, more adaptive, notions

The other way to help patients to identify their automatic thoughts is to ask them when, they show affective change "What was going through your mind just now?" Patients are then instructed to mach their automatic

thoughts with the corresponding common systematic errors described above In later sessions, the patients are encouraged to come up with their basic underlying beliefs, assumptions or life rules that present their predisposition to adopt these systematic errors in their thinking

The other components of cognitive therapy are teaching patients to re-evaluate these identified automatic thoughts and to create alternative and more adaptive responses One way to achieve this aim is by instructing the patients to ask themselves four particular questions when they find themselves having upsetting thoughts The first of these questions is "What is the evidence that supports and/or refutes this thought?" The aim of this question is to lead patients to ascertain faulty inference-making that is based on illogical thinking The second question is "How else could I view this situation?" Posing this question helps patients to see consciously situations from different perspectives The third question asks "Realistically, what is the worst thing that could happen in this situation, and what implications would it have for my life?" This question assists patients to de-catastrophize their thinking The last question is "Even if there is reason to believe that my depressing viewpoint is warranted, what can I do to help remedy this situation?" This question suggests the stage for constructive problem solving, that is regarded as important in helping to decrease the sense of helplessness and hopelessness and to help patients to learn to adopt rational self-help behaviour

To help patients to organize, concretize, and record their self-help process, cognitive therapists usually ask patients to apply the Daily Thought Record (DTR) By utilizing the DTR, patients record their automatic thoughts

and their concomitant situations and emotions that they experience between sessions In addition, the DTR requires that patients create and record alternative, more objective, functional thoughts and write down if they experience any improvements in their mood The other technique in which the automatic thoughts are challenged includes reverse role playing In this technique, the therapist plays devil`s advocate who supports the patients` automatic thoughts, while the patient needs to challenge these arguments with rational responses This process can be accentuated when the patient is instructed to imagine that a best friend`s automatic thoughts are being challenged The assumption of this technique is that the patient may be more successful when s/he responds rationally to the friend`s or the devil`s advocate`s stated concerns The patient could be asked whether these responses could be self-applied

The other technique employed to re-evaluate dysfunctional thinking includes the use of imagery, such as time projection (imagining life after several months or years to obtain some detachment from the current stressful event), goal rehearsal (imagining solving the current problem to increase a sense of self-efficacy), coping imagery (imagining changing the aspects of a situation to be less threatening, imagining dealing with several possible outcomes ranging from the best to the worst, and imagining how another person would cope in the same circumstances)

The other way to test and challenge depressive expectations involves behavioural experiments The patients are asked to treat their thoughts as hypotheses to be tested behaviourally The patients are asked to create a proposed self-help behaviour and to anticipate the outcomes if they conduct

it Next, the patients are asked to go forth with the self-help behaviour and see whether their anticipations are conformed or disconfirmed When the negative anticipation is disconfirmed, valuable corrective experience would be gained, that subsequently contributes to the realization that thinking patterns alone can hinder the recovery process If the anticipation is confirmed, still there are several advantages For instance, the patients could be asked to monitor their automatic thoughts during the experiment which can help the therapist and patients to identify the key cognitions that hinder progress

The other components of cognitive therapy involve behavioural techniques Cognitive therapy also employs several behavioural techniques to change depressogenic belief systems and to facilitate problem solving Even though these techniques are utilized over the course of treatment, they are more employed in the early stages of the treatment, particularly when patients suffer from more severe depression, lethargy, inertia, and a sense of helplessness and hopelessness

The behavioural techniques that are more employed involve the scheduling of activities, mastery and pleasure ratings, graded task assignments, assertiveness practice, and problem solving The scheduling of activities is conducted at the same time as the mastery and pleasure ratings Each of these scales has its own aim to achieve For example, the mastery scale leads patients to focus their attention on their ability to act Additionally, the mastery scale is beneficial in increasing the patients` sense of self-efficacy The pleasure scale is useful for helping patients to face their assertion that nothing could be enjoyable Even when patients rate

themselves low in the mastery and pleasure scales, the therapist helps in identifying the dysfunctional cognitions that play an essential role in depressive feelings, and, subsequently, are important in treatment

The graded task assignments can be used when patients find difficulty in accomplishing a determined goal In this case, the overall goal is broken down into easier stages that can be achieved easily Patients then achieve the tasks gradually, concentrating on the success in achieving each task and confronting negative thoughts that may be mixed with the appreciation of each achieved task or with expectations about achieving the next task The benefits that can be obtained from this technique is that patients realize that, by subdividing a crucial goal into achievable elements, difficulties that previously appeared insurmountable can be overcome

The other behavioural procedure that can be utilized by cognitive therapists is assertiveness practice When patients manifest social withdrawal and/or a shortcoming in social challenging, role playing is used to rehearse alternative, more adaptive, behaviours After determining problematic situations, the therapist and the patient identify together appropriate responses to them and then translate them into simulated actions utilizing role play The patient is encouraged to react with these new assertive responses in reality between sessions and to observe the outcomes Thoughts that may inhibit the patient from following this task are treated within the sessions

Another behavioural technique used in cognitive therapy is problem solving This behavioural procedure consists of defining the problem, brainstorming the potential solutions, testing the pros and cons of each

assumed solution, selecting and utilizing the selected course of action, and evaluating the findings The other component of cognitive therapy is homework assignments Homework assignments present one of the aims of cognitive therapy, which is to teach patients to be their own therapists The goal of utilizing homework assignments as a vital element of treatment is to encourage patients to generalize their new skills and enhance their sense of therapeutic self-reliance It is recommended that homework assignments should be related to the component of the therapy session and patients should be provided with a rationale for utilizing them In addition, it is emphasised that patients should agree to complete these assignments, since they know that it is important and beneficial to do so If patients manifest qualms regarding completing homework assignments, the therapist should respect these feelings and they also should be regarded as automatic thoughts that need to be evaluated rationally, like any other automatic thoughts that may contribute to the patient's disorder It should be noted that patients can generate their own assignments if they reject a particular one As therapy progresses, this generation can serve in helping the patients to build towards self-sufficiency

The effectiveness of cognitive therapy for depression

There has been considerable research comparing the effectiveness of cognitive therapy on treating depression with other psychotherapies and/or antidepressant medications and/or no treatment or placebo control conditions For instance, a synthesis work by Miller and Berman (1983) showed that cognitive therapy was superior to no treatment, and it was at

least as effective as pharmacotherapy Another meta-analysis conducted by Dobson (1989) revealed that cognitive therapy was better than waiting list control, drug treatment, behaviour therapy and other forms of therapy Gloaguen, Cottraux, Cucherat, and Blackburn (1998) conducted a meta-analysis that involved more studies than both of the previous meta-analyses Gloabuen and colleagues found that cognitive therapy was better than waiting list, pharmacotherapy, and other forms of therapy but it was equal to behavioural therapy

However, the National Institute of Mental Health's Treatment of Depression Collaborative Research Project found that, while pharmacotherapy and interpersonal psychotherapy were better than placebo in the treatment of more severe depression, cognitive therapy was not (Elkin *et al*, 1995) These findings led the American Psychiatric Association (APA), in its practical guidelines for the treatment of patients with major depression, to indicate that, even though cognitive therapy might be effective in treating patients with less severe depression, pharmacotherapy and interpersonal therapy are recommended in treating more severely depressed patients (American Psychiatric Association, 2000) Moreover, null differences were found between patients treated with cognitive therapy and pharmacotherapy in the positive change measured by the Cognitive Response Test, the Automatic Thoughts Questionnaire, and the Dysfunctional Attitudes Scale (an assumed measure of the underlying mechanism of cognitive therapy) In addition, the detection of a relationship between pharmacotherapy and a reduction in scores on the Dysfunctional Attitudes Scale has raised doubts that psychological factors are responsible for changes in these beliefs

(Cramer, 1992) Furthermore, including several behavioural components in the cognitive therapy package raises the question of whether the beneficial effectiveness of cognitive therapy refers to the cognitive aspects of the treatment, behavioural aspects or even to non-specific factors (Emmelkamp, 2004)

2.7.3.2 The learned helplessness model of depression

Another example of using the cognitive approach for depression is the reformulated learned helplessness model of depression (Abramson, Seligman, & Teasdale, 1987) This theory was originally developed by Seligman (1975) as the theory of learned helplessness (Gotlib & Hammen, 1992) Unlike Beck, who developed his theory based on dealing with depressed patients, Seligman developed his original learned helplessness theory based on laboratory experimentation with animals Seligman and Maier (1967) found that, while dogs that were exposed to escapable shock or that were not exposed to shock at all more effectively learnt how to escape, dogs who received shock showed a deficiency in learning the escape response

The main issue in the learned helplessness theory is that helpless behaviour can be learned through exposure to uncontrollable shock (Gotlib & Hammen, 1992) Seligman and Maier (1967) stated that perceiving that the stressor is uncontrollable leads to motivational deficits, cognitive deficits, and emotional deficits Motivational deficits are manifested by a decline in the initiation of voluntary responses as a result of the perception that responses have no impact on the situation For instance, dogs that were exposed to

inescapable shock did not accordingly acquire escape responses (Williams, 1984)

Cognitive deficits result from learning that stimuli are uncontrollable, since such learning hinders learning later that responses lead to that stressor Emotional deficits postulate that the depressed affect is a result of learning that a stressor is uncontrollable. The hypothesis assumed by Seligman and his colleagues to explain these phenomena was called learned helplessness

Seligman (1992) argues that these motivational deficits, cognitive deficits, and emotional deficits occur when an organism learns that response and reinforcement work independently Seligman suggests that these principles are suited to depression, since depression is produced by perceiving stressors as uncontrollable, which results in the expectation that later reinforcement is out of the control This expectation leads to the passivity of depression (emotional deficits), the negative expectations of depression (cognitive deficits) and the affective disturbance in depression (emotional deficits)

Even though, when the learned helplessness theory was examined by utilizing humans, the findings were similar to those obtained from employing animals, several limitations emerged (Gotlib, & Hammen, 1992) For example, the learned helplessness theory could not explain why hopeless participants lost their self-esteem for the generality of depression over situations, why individuals differ in their continuing depression, or whether or not there are differences between believing that all individuals lack the requisites to control their responses and believing that s/he is the only one

who lack these requisites (Abramson & Seligman, 1978)

These limitations in applying the learned helplessness theory with humans have led to several reformulations of the theory's hypotheses, and these reformulations even include a significant change, that is, adding attribution terms Attribution terms have been seen as mediators between the perception of no contingency and expectations regarding later contingencies (Abramson *et al*, 1978, Miller & Norman, 1979) Therefore, a reformulation of learned helplessness theory that applies to humans through introducing attribution terms has become the focus of empirical and theoretical research Based on this reformulation of the helplessness theory, it was stated that depression contains four classes of deficits motivational, cognitive, self-esteem, and affective Depression occurs when individuals believe that their desires are unachievable or that highly aversive outcomes are probable and they expect that they are incapable of changing the likelihood of such situations The depression-prone individual tends to attribute stressful events to global, stable, and internal causes Additionally, the intensity of the deficits in motivation and cognition rely upon the strength and certainty of the expectation of uncontrollability, while the intensity of the deficits in the affective and self-esteem depend on the importance of the outcome

However, studies examining the attributional styles of depressed individuals produced mixed findings (for review of such studies see Williams, 1984) Moreover, since Seligman, in proving his hypothesis regarding the attributional styles for depression, relied on computing the correlation between the participants' scores on BDI and the internal, stable, and global attribution of bad outcomes, it is unclear whether these styles of attribution

lead to depression or, when an individual becomes depressed, he/she adopts depressive attributional styles (Williams, 1984) Furthermore, it has been found that, when individuals are exposed to uncontrollable situations, not all of them became depressed, rather, some became anxious, some angry, while others showed a low level of emotional reaction (Gotlib, & Hammen, 1992) Coyne, Metalsky, and Lavelle (1980) reported that the helplessness phenomena produced in the laboratory resulted from cognitive interference related to anxiety Supporting this notion, as Coyne and colleagues stated, when the participants were asked to engage in an attentional redeployment exercise (imagining a pleasant mountain scene provided with rationale for it - "it would quiet physiological activity and improve problem solving"), they did not experience the deficits that usually follow a helplessness induction

2.7.3.3 The hopelessness theory of depression

The hopelessness theory of depression, presented by Abramson, Metalsky, and Alloy (1989), is an updated version of the reformulated learned helplessness theory Abramson and his co-workers postulate a subtype of depression called hopelessness depression They assume that hopelessness depression is produced by the expectation that highly desirable outcomes will not occur or that highly negative outcomes will occur, along with expecting that no response in one's repertoire will change the likelihood of the occurrence of these outcomes

Based on the hopelessness theory, stressful events serve as "occasion setters" for individuals to become hopeless When individuals face stressful events, they make three kind of inferences that modulate whether or not they

become hopeless and subsequently develop the symptoms of hopelessness depression Firstly, individuals are more likely to develop the symptoms of hopelessness depression when they attribute stressful life events to stable, global causes, and consider them to be important, than when attributing them to unstable, specific causes and regard them as unimportant Secondly, hopelessness depression is more likely to occur when an individual regards the negative consequence of stressful life events as important, without remedy, unlikely to change, and as affecting many areas of his/her life than if the negative consequence are viewed as impacting only a very limited sphere of life The final kind of inference that results in hopelessness depression is inferred negative characteristics about the self Abramson and his colleagues indicated that hopelessness depression is more likely to occur when the individual believes that a negative characteristic is without remedy and unlikely to change, and that the possession of it will prevent the achievement of important outcomes in many areas of life, compared with the negative characteristic that is viewed as preventing the attainment of outcomes in only a very limited sphere of life

Abramson and his assistants (1989) hypothesized the term depressogenic attribution style to refer to a general tendency for some individuals to attribute aversive events to stable, global factors and to see these events as very important Individuals who manifest this depressogenic attribution style are more likely to become hopeless when they face an aversive event It should be noted that, in the absence of stressful life events or in the presence of positive life events, individuals showing the depressogenic attributional style are not more likely to develop hopelessness

and, in turn, the symptoms of hopelessness depression compared to individuals who do not show this attributional style Accordingly, the hopelessness theory postulates that this depressogenic attributional style serves as diathesis that works on the presence of stressful events by resulting in hopelessness depression

Abramson and his colleagues (1989) suggest that the depressogenic attributional style is a domain-specific vulnerability to the symptoms of hopelessness depression when individuals face stressful events in that same content domain Therefore, in order for hopelessness depression to occur, the hopelessness theory requires that there should be a match between the content areas of an individual's depressogenic attributional style and the aversive life events that he or she confronts However, there has been an indication that this sense of hopelessness about self, the future, and the ability to control life are symptoms of depression rather than signs of the causes of depression (Downing-Orr, 1998) Hence, whether this depressogenic attributional style is a cause or outcome of depression is unclear

2.7.3.4 The self-control theory

A The self-control theory of depression

The self-control theory of depression combines a cognitive and behavioural explanation In developing the self-control theory Rehm (1977) depends on Kanfers` (1977) model of self-regulation (Rehum, 1990) Kanfer postulated that individuals` control of their behaviour consists of three stages

self- monitoring, self-evaluation, and self-reinforcement In the self-monitoring stage, individuals observe their behaviour and environment to evaluate later their relevancy and appropriateness for achieving their aims Through the second stage (self-evaluation), individuals compare the information derived from the first stage with an internal criterion for the desired behaviour In the third stage (self-reinforcement), individuals make an evaluation regarding whether self-reinforcement is appropriate and relevant In this stage, individuals seek to know the degree to which the behaviour approaches the performance standard

This model of self-regulation has been applied by Rehm to account for the causes, symptoms, and treatment of depression Rehm (1990) applied the three component processes suggested by Kanfer in developing a self-control model of depression Based on this model, depressive symptoms can be explained by a particular deficit in self-monitoring, self-evaluation, and self-reinforcement In particular, Rehm suggested that there are six deficits, one or more of which can account for the behaviour of depressed individuals Firstly, with regard to the self- monitoring of excluding positive events, depressed individuals focus on negative events This specific cognitive style explains the pessimism and gloominess that depressed individuals manifest Secondly, depressed individuals, in excluding the delayed outcomes, focus on the immediate outcomes of their behaviour, hence, when they behave, they do not consider anything beyond their present requirements

The third deficit for depressed individuals in their self-control behaviour includes self-evaluation This involves a comparison between the estimated performance that was obtained from self-monitoring and internal standards,

while the behaviour standards for individuals who are not depressed are clear, realistic, achievable, and tend to evaluate their developmental actions objectively by comparing their self-monitored behaviour with these preset standards Depressed individuals, according to Rehm, set unrealistic, perfectionist, global criteria, thus decreasing the likelihood of achieving them Subsequently, depressed individuals fail in accomplishing their aims and, hence, make a negative evaluation about themselves in a global, over-generalized manner

The other deficit that depressed individuals display in their self-evaluation refers to their style of attribution In line with helplessness theory, mentioned above (Abramson *et al*, 1978), Rehm postulated that depressed individuals manifest a lack of accuracy in attributing the causality of their performance, since they distort their perception regarding responsibility to denigrate themselves

The last two possible deficits in self-control contain the formation of self-reinforcement and self-punishment Rehm suggested that depressed individuals fail in administering suitable contingent rewards for themselves in order to maintain their adaptive behaviour This low rate of self-reward partly explains the slow rate of overt behaviour, such as the reduction in general activity level, and the lack of persistence that characterize depression Further, Rehm suggest that depressed individuals manifest excessive self-punishment that results in suppressing achievable behaviour which, in turn, leads to excessive inhibition

Rehm reviewed his theory and suggested that depression includes selectively attention being paid to negative events in ignoring positive ones,

selectively attention being paid to immediate behaviour outcomes opposed to long-term outcomes, standards of self-evaluation being characterized by being stringent and perfectionist, depressive attributions for successes and failures, contingent self-reward being inadequate, and excessive self-administered punishment (Emmelkamp, 2004)

Several studies have provided evidence supporting the self-control theory For instance, Roth and Rehm (1980) found that depressed individuals showed distortions in their self-monitoring, since they exhibited more negative and fewer positive behaviours than did non-depressed patients It should be noted that no differences between those conditions were found in terms of selective memory for negative events nor selective attention to negative events Studies have also shown that depressed individuals differed from non-depressed individuals in terms of their reward and punishment of themselves (e g , Lobitz & Post, 1979, Rozensky, Rehm, Pry, & Roth, 1977)

B..Self-control therapy

Self-control therapy was developed from Rehm's self-control approach to depression As mentioned above, Rehm postulated that depression refers to deficits in self-monitoring, self-evaluation, and self-reinforcement In particular, Rehm suggested six deficits that lead to depression selectively attention paid to negative events in ignoring positive events, attention paid to immediate rather than delayed consequences, stringent criteria for self-evaluation, a negative attribution style, inadequate contingent reinforcement to achieve long-term goals, and excessive self-punishment Subsequently, these comments on functioning are the target of self-control therapy

Self-control therapy is structured to be a group-format therapy conducted over a specific period of time The sessions for this treatment range from six to twelve These sessions are divided into three parts, each of which concentrates on one of the three deficit areas mentioned above In terms of self-monitoring, patients are instructed to record everyday positive events and their related mood Patients graph these events and their associated mood to illustrate clear feedback regarding the relationship between positive mood and positive events In the second stage, the self-evaluation, the patients learn to identify particular goals that should be achievable regarding positive activities and behavioural productivity These goals are increased systematically in terms of largeness and difficulty Further, patients assign points to these sub-goals as long as they are achieved In the final stage, self-reinforcement, the patients learn to determine reinforcers and to give these rewards to themselves when they achieve their identified goals Following these stages, the patients are encouraged to continue using these self-control skills

Several studies examining the utility of self-control therapy for treating depression have found support for this treatment For example, Roth, Bielski, Jones, Parker, and Osborn (1982) found that self-control therapy alone was as effective as self-control therapy plus antidepressant medication in treating unipolar depression Rehm, Fuch, Roth, Kornblith, and Romano (1979) found that self-control therapy was better than assertion skills training for treating depressed women Fuch and Rehm (1977) also found that self-control was superior to non-specific group therapy or a waiting list control condition in reducing depression within a female sample

However, studies examining the contribution of the three components of the therapeutic programme (Kornblith, Rehm, O'Hara, and Lamparski,1983 & Rehm *et al*,1981) found that eliminating certain components, such as the self-evaluation or self-reinforcement, did not impact on the programme Moreover, the findings from a study by Rehm, Kaslow, and Rabin (1987) indicated that self-control therapy led to equivalent changes in the cognitive and behaviour aspects of depression Additionally, it should be noted that studies investigating the utility of self-control therapy did not rely upon clinically depressed patients, instead, they utilized samples derived from volunteers who belonged to the general community population Thus, a question arises whether self-control therapy possesses a repertoire for dealing with clinically depressed individuals

2.7.3.5 The problem-solving theory

A The problem-solving theory of depression

In the problem-solving theory, Nezu and his assistants (e g , Nezu, 1987, Nezu, & Perri, 1989, Nezu & Ronan, 1985) postulated that the development and persistence of depression emerge from ineffective problem-solving skills Problem-solving, as defined by D'Zurilla and Nezu, that cited by Nezu (1987) is "considered to be a *general* coping strategy whose goal is the discovery of a *wide* range of effective alternative solutions, thus, it contributes to the facilitation and maintenance of general social competence" (page, 122)

Nezu (1987) noted that a number of studies have reported a significant

correlation between a problem-solving deficit and depressive symptoms Based on this correlation, Nezu regarded problem-solving as a moderator relationship between depression and stressful life events They also suggested that an effective problem-solving ability function can protect one from the impact of stressful life events Additionally, Nezu hypothesized that problem-solving moderates the association between a negative attributional style and depression

Based on problem-solving theory, ineffective problem-solving skills increase the probability for depression to occur Particularly, this theory postulated that depression can be produced from deficiencies in any or all of the five major components of problem solving general orientation, problem definition and formulation, generation of alternatives, decision making, and solution implementation and verification The problem-solving theory suggests that the onset of depression results from facing an actual problem situation When this problem is unresolved, negative consequences are likely to occur, and accordingly a decline in individuals` personal and social reinforcement In contrast, resolving this problematic situation serves to reduce the likelihood of depression occurring In addition, the problem-solving theory argues that the severity and persistence of depression depends on intense, pervasive, and maintaining these consequences in addition to ineffective problem-solving Moreover, according to this theory, ineffective problem-solving is plausible for increasing relapse rates due to the high probability of problems occurring in the future and lasting without being resolved In supporting the problem-solving model of depression, a study by Lyubomirsky and Nolen-Hoeksema (1995) revealed a relationship between

depression and a lack of problem solving skills

B Problem-solving therapy

As mentioned above, the problem-solving model postulated that a lack of skills in problem-solving makes individuals vulnerable to depression If this deficit results in ineffective coping attempts, when an individual confounds major stressful life events or continuous everyday problems, he/she develops depression (Nezu & Perri, 1989) Problem-solving therapy aims (1) to assist depressed individuals to determine their former and current life events that may be the antecedents to a depressive episode, (2) to diminish the negative effect of depressive symptoms on current and future coping attempts, (3) to increase the utility of problem-solving attempts to cope with current life events and (4) to provide depressed individuals with general skills that will enable them to treat their future problems more effectively and, hence, prevent them from developing future depressive reactions (Gotlib & Hammen, 1992)

Nezu and Perri, (1989) described how these goals can be achieved They mentioned that depressed individuals are trained in the five major problem-solving component processes of problem orientation, problem definition and formulation, creation of alternatives, decision making, and solution implemention and verification Training in problem orientation concentrates on providing patients with a rational, positive, and constructive attitude towards problems in life and problem solving as a means of coping with them The goal behind this training is to create an alternation in the patients` attitudes and beliefs that may hinder or combined with their efforts

to engage in the remaining problem-solving processes In addition, patients are taught to name their emotions as cues as a means of determining the existence of a problem, and to resist their tendency to react automatically to problems but, rather, engage in the problem-solving process Training in the four problem-solving tasks involved teaching patients to develop a better definition and formulation of the nature of their problems, generate a number of different solutions to these problems, systematically evaluate the potential consequences of each solution and choose the best solution to adopt, and finally, to monitor and evaluate the outcome of the actual solution after its utilization

Problem-solving therapy involves 10 sessions In the first session, the patients are provided with a general introduction to the programme In the second and third sessions, the focus is on the problem-orientation component Sessions four and six contain didactics and practice in the remaining four problem-solving skills In the last four sessions, the patients are provided with an applied integration of the model along with continuing practice of the various problem-solving components Throughout the therapy, the problem-orientation component is highlighted Additionally, homework assignments, relevant to each of the aforementioned steps, are utilized as part of the therapy programme

There has been considerable research supporting the effectiveness of problem-solving therapy in treating depression For instance, Arean, and his colleagues (1993) found that problem-solving therapy was more effective than a waiting-list control condition, and better than reminiscence therapy on the Hamilton Rating Scale for depression but not on the BDI Nezu and Perri

(1989) found that problem-solving therapy was superior to an abbreviated form of problem-solving therapy (that was without training in problem orientation) and a waiting list control condition Similarly, Nezu (1986) reported findings indicating that problem-solving therapy was more effective than problem-focused therapy and a waiting list control condition immediately after the treatment and it was better than problem-focused therapy after six months (follow-up analyses included only participants in both treatment conditions)

2.7.3.6 The self-focus theory of depression

Lewisohn, Hoberman, Teri and Hautzinger considered the cognitive and reinforcement theories of depression as narrow and simplistic (Gotlib & Hammen, 1992) Therefore, to capture the complexity of depression, their model, that accounts for the etiology and persistence of depression, is multifactorial According to this model, the onset of depression is seen as a result of environmental and dispositional factors In particular, depression is regarded as the final consequence of the changes in behaviour, affect, and cognitions that were initiated environmentally, while the situational factors are seen as triggers for the depressogenic process Additionally, cognitive factors are important as moderators of the impacts of the environment (Gotlib & Hammen, 1992)

Self-focus theories speculate that the pattern of events resulting in the onset of depression start when the antecedent risk factors initiate the depressogenic process through disrupting the chain of adaptive behaviour (Gotlib & Hammen, 1992)

The antecedents can be general stressors at the macro level, such as stressful life events, and at the micro level, such as daily arguments These stressors disrupt the patterns of behaviour that are needed for the interactions with the environment Therefore, stressful life events are considered to result in depression to the degree that they disrupt individuals` significant areas of life This disruption could lead to a negative emotional reaction that collaborates with the lack of ability to contain the effect of these events to lead to an increased state of self-awareness This increase in self-awareness raises the individuals` sense of failure according to internal criteria, subsequently resulting in the emotional, cognitive, and behavioural symptoms of depression This increase in depressive symptoms serves to retain and maximize the depressive state by making more accessible negative information about the self or decreasing the individual`s sensitivity to other individuals in their environment (Gotlib & Hammen, 1992)

Self-focus theories stress that the stable predisposing individuals differences moderate the relationship between the effect of the antecedent events in starting the chain resulting in depression and in maintaining the depression after it begins These factors are considered to be vulnerabilities and immunities Vulnerabilities lead to an increased likelihood of developing depression, while immunities decrease the likelihood of developing depression (Gotlib & Hammen, 1992) These vulnerability factors have been suggested to include being female, a history of previous depression, and having low self-esteem, whereas the factors of immunities involve high self-perceived social competence, high confidence, and good coping skills(Gotlib & Hammen, 1992)

2.7.4 The differential activation hypothesis

There follows a brief description of the differential activation hypothesis, as stated in (Gotlib & Hammen, 1992)

The differential activation hypothesis in accounting for depressive phenomenon distinguishes between vulnerability to the developing depression and vulnerability to the maintenance of depression In addition, it suggests the differential activation hypothesis to explain the differences between individuals in these vulnerabilities Unlike other cognitive theories of depression, that stress the importance of stable cognitive factors that exist before the depression occurs, such as negative schemas, dysfunctional attitudes and negative attributional style, the differential activation hypothesis emphasizes patterns of thinking that are activated in the depressed state The differential activation hypothesis assumes that all individuals confront several life events that lead to at least mild or transient depression Yet only some of those individuals develop clinical depression

The differential activation hypothesis presumes that the majority of individuals, when they confront stressful live events, avoid entering into an escalating or self-maintaining vicious chain of depression and negative thinking On the other hand, more vulnerable individuals manifest patterns of thinking during the beginning of their depressed state which results in a more severe level of depression For individuals who are more vulnerable, their accessible cognitive constructs (e g , thoughts, memories, beliefs) and self-representations on the initial depressed state are more negative compared to those of their peers who are less vulnerable These cognitive constructs are

stored in memory as a consequence of early learning experiences that connect depressed effect with negative cognitions Those more vulnerable individuals have fewer resources of social support and lack coping skills compared to less vulnerable individuals Since this negative thinking increases the intensity of depressive symptoms so, ultimately, the depression become more severe, the cognitive processing of these individuals become more negative and it becomes easier to access negative events and memories This chain of cognitive process leads to a further worsening of the depression and the maintenance of a vicious circle

To sum up, from this review of some of the psychological theories that have been developed to account for depression occurring, several points can be made Firstly, many of these theories place importance on the role of stressful life events Secondly, the majority of these theories stress that depression occurs particularly among individuals who have a predisposition towards depression, whether they experienced a fixation in the oral stage, or developed negative schema Thirdly, it can be noted that a number of these theories considers depression to be the result of combining both the internal factors of the depressed individuals and their interactions with the environment Since many of these theories stress the importance of negative life events as triggers for depression or their role in making one vulnerable to developing depression, the next section will shed some light on the relationship between depression and stressful events

Based on this brief review of some of hypothesized approaches to treating depression psychologically, several points can be made Firstly, as can be noticed from this brief review of some of the hypothesized models of

treating depression, each of these models has supportive evidence regarding its utility in treating depression, despite the differences in theoretical background between them Further, as Rehm (1990) indicated, in the depression literature, there is a lack of specificity impacts become common finding (e g , Kornblith, 1983, Rehm *et al* 1981, Rehm *et al*, 1987, Zeiss *et al*, 1979) Moreover, in a study by Illardi and Craighead ,cited by Lambert & Ogles (2004), the findings indicate that cognitive therapy for depression achieved most of its targets before providing the participants with specific cognitive behaviour therapy techniques Taken together, it is possible that these therapeutic models are effective since they may facilitate specific change that is crucial in alleviating depressed mood The relationship between depression and stressful events is well established (as shown below), hence, it is possible that psychotherapy, regardless of its form, leads to changes in the patients' perceptions about their stressor Lazarus (1991) reported that the best way to reduce the detrimental effects of stressors may be via bringing about changes in the appraisals that produce initial stress and, hence, the recovery from distress results from adopting more positive appraisals Changes in depression level may not be due to the specific skills being acquired but rather simply due to talking to the therapist As mentioned in chapter 1, Lazarus (1991) suggests that a linguistic expression of upsetting events may facilitate assimilation which, subsequently, results in reappraising these events and, hence, accepting and integrating them into the experience Furthermore, as indicated in chapter 1, a number of scholars strongly stress the importance of changing one's perception in order to achieve alterations in one's emotions and behaviour (e g , Beck 1972, Frijde, 1986, Hammen, 1988,

& Rogers, 1951) The lack of differences between outcomes in patients treated by professional and paraprofessional therapists (e g , Berman & Norton, 1985, Durlak, 1979, Strupp & Hadly, 1979) may provide evidence to support the assumption that modifying or changing one's perceptions about a stressor may represent the core element of therapeutic change

Secondly, as mentioned in chapter 1, emotional disclosure has been found to have beneficial effects It is possible that disclosing upsetting experiences may facilitate several targets of some of these models For example, emotional disclosure may help in withstanding stressful experience This withstanding presents the aim of psychoanalytical therapy As mentioned in chapter 1, the beneficial effects resulting from emotional disclosure may be accounted for by changing the discloser`s perception about the stressor The discloser may change his/her previous evaluation of the stressor and hence may not experience this event as a loss of self-regard, that is considered to be crucial in developing depression according to psychoanalytical theory, and, subsequently, experience improvements in depressed mood

Disclosing upsetting experience may also play the role of reinforcer in improving depressed mood The alteration or modification that may occur in one`s perceptions about the stressor may be regarded as a pleasant event that will, according to the behaviour model, lead to a reduction in the depressed mood

The beneficial effects of disclosing upsetting events are attributed to alterations in the cognitive and linguistic processes engaged during the disclosure ((Pennebaker, 1997) Pennebaker (2003) and Pennebaker and Seagal (1999) also suggest that expressing stressful events linguistically may

lead to the reorganization of these events and to thinking of them in a different light Additionally, the participants who reported that they benefited from emotional disclosure in studies conducted by Pennbekar and colleagues (e g , Pennbekar & Beal, 1986, Pennbekar, 1993) stressed that they experienced changes in their cognition as a result of engaging in the disclosure task (see chapter 1 for their statements) An aspect of this cognitive change may include correcting distortion in cognition, and modifying negative attitudes that are regarded as essential in developing depression according to Beck's cognitive theory Thus, a discloser may become more logical in their conclusions (reducing the arbitrary inference), the stressor at hand may become less stressful or positive sides of it may be recognised (s/he will not be selectively abstracted), the exact size of the event may be realized (a modification in magnification and minimization tendency), the logical causes of the event may aid in determining to what extent s/he is responsible in occurring the stressor, and the previous evaluation may be re-evaluated, to aid developing flexibility of thinking instead of dichotomous thinking These corrections in cognitive distortions may influence one`s attitudes, and, hence, one may develop a more positive attitude

Confronting stressful events in a safe environment may enhance one's sense of control of these events (Rehm, 1990) Emotional disclosure may also aid in changing the attributional style that us considered to be crucial in developing depression according to the self-helplessness approach, since, as mentioned in chapter 1, the essential element in the benefits produced by emotional disclosure, according to Kacewicz *et al* (in press) is forming a story The beneficial effect of building a coherent story involves making the complex

event more simple and increasing one`s understanding of it (Pennebeker & Seagal, 1999) This new view of these events may result in adopting more realistic causes for the stressor Pennebaker *et al* (1988) suggest that disclosing stressful events may lead to gaining a better understanding of the causes of these events Accordingly, disclosing upsetting experiences may change the former style of attributing these events Thus, instead of adopting internal, stable and global causes of stressors, they become unstable and specific Highlighting this assumption is the finding that disclosing positive experiences has also been found to be beneficial (e g , King, 2001)

The formation of a comprehensive narrative and achieving a better understanding of the stressful experience (Pennebeker & Seagal, 1999) may provide the discloser with a better understanding of the causes and effects of these events (Pennebaker, *et al*, 1988) This improvement in realizing the causes of the stressful event and its effects may improve the skills required to resolve this event Clark (1993) indicates that talking about upsetting events increases the understanding of the problem at hand and the reappraisal of it, which helps in problem solving Statements reported by the participants in Pannebecer and his colleagues (see chapter 1 for examples) may bolster this assumption (e g , had to think and resolve past experience To have to write emotions and feelings helped me understand how I felt and why")

Disclosing upsetting experience may lead to a reappraisal it, which may result in changing negative thinking that plays a significant role in developing depression, according to the differential activation model

2.8 Depression and stressful life events

Historically, depression has been divided into psychotic depression and neurotic depression When depression occurs due to biological factors and in the absence of an external stressor, the individual is diagnosed as having psychotic depression, whereas neurotic depression is considered to be a reaction to negative events (Free, & Oei, 1989) Frank, Anderson, Reynolds, Ritenour, and Kupfer (1994) provide partial support for this assumption, since, although the investigators found that patients with endogenous depression differed significantly from patients with nonendogenous depression in their proportion of experiencing severe life stress in the 6 months before onset of their depression and found a relationship between the onset of nonedogenous depression and severe events, they found that the onset of both endogenous and nonendogenous depression was associated with the presence of stressful events in the 6 months preceding the depression

However, several outcome studies have provided evidence that contradicts the assumption that experiencing negative life events precedes the onset of neurotic depression, while the onset of psychotic depression does not For example, Copeland (1984) found that the presence or absence of stressful life events was unrelated to dividing depression into neurotic depression and psychotic depression Brown, Harris, and Hepworth (1994), and Brown, Ni Bhrolchain and Harris (1979) found that patients diagnosed as suffering from psychotic depression did not differ significantly in their pre-morbid experience of life events from those diagnosed as having neurotic depression

Due to this inconsistency in the evidence supporting the assumption that

biological factors are responsible for psychotic depression while stressful events precede neurotic depression, the term melancholic has been utilized instead to avoid the causal implications of endogenous depression (Hammen, 1997)

A considerable body of research has reported the relationship between developing depression and experiencing stressful life events, whether among adult samples (e g , Billings *et al*, 1982, Lloyd, 1980, Paykel,1979) or even among adolescent samples (e g , Allgood-Merten, Lewinsohn, & Hops, 1990) Several explanations have been offered to account for this relationship For example, Kendler *et al* (1995) found that individuals who are at risk of developing severe depression are those who had a genetic liability towards depression (monozygotic co-twins among women who experienced major depression previously) and faced recently severe stressful events (assault, serious marital problems, divorce or break-up, death of a close relative) Even though the stressful events were a predictive factor for depression to occur in all participants, it has been found that participants at genetic risk were the most likely to develop depression

Another group of researchers pointed to the importance of appraising stressful events as the mediator in the relationship between the upsetting experiences and the development of depression According to these investigators, confounding a stressful event is not essential, rather, how the individual appraises the event is a determinant of whether the depression occurs or not For instance, Lazarus and Folkman (1991) assumed that there are two types of appraisal primary appraisal and secondary appraisal In primary appraisal, the question that is posed by an individual is "What do I

have at stake in this encounter?" The answer to this question determines the quality and intensity of the emotion For instance, when an individual's self-esteem is at stake, there is the potential for feeling shy, angry, worried, or fearful, whereas, when physical well being is at stake, feelings of worry and/or fear may be experienced

In secondary appraisal, the questions that arisen are "What can I do?" "What are my options for coping?" and "How will the environment respond to my actions?" The answers to these questions impact on the kinds of coping strategies that will be utilized to face the requirements of the encounter, for instance, in the case of appraising the outcome of the encounter as being able to change, while the emotion-focused style of coping is more likely to be adopted when the outcome is appraised as being unable to change

Lazarus and Folkman suggested that there are several factors that affect an individual's appraisal of the stressful situation These factors include individual characteristics, such as pattern of motivation (e g , values, commitments, and goals), individual beliefs regarding the self and the world, and his/her realization of the available resources needed for coping, that involve financial means, social and problem-solving skills, and health and energy The differences between individuals in terms of these variables account for the differences in appraising an encounter as a threat by one person and as neutral or a challenge by another

The other factors that influence the appraisal processes are environmental variables, such as the nature of the danger, the imminence of the danger, ambiguity and duration, and the availability and quality of the social support resources to facilitate coping Furthermore, Lazarus and his

colleagues (DeLongis, Coyne, Dakof, Folkmanm, & Lazarus, 1982) assigned more important role to minor hassles than major life events in relating to the onset of depression Lazarus` model of person-environment transaction has been criticized by several theorists For example, Ben-Porath and Tellegen (1990) reported that Lazarus, in his model, ignored the important role of personality traits in appraisal Brown (1990) criticized Lazarus' way of measuring the environment, which relies on measuring the environment from the individual's point of view

Other researchers have considered stressful events as one dimension among the multiple risk factors that lead to depression Holahan and Moose (1991), for example, distinguished between experiencing highly stressful events and experiencing low stressful events Under high stressors, one's resources impact on one's coping style, and one's coping style determines whether the depression will occur or not These resources contain self-confidence, an easygoing disposition and a supportive family environment On the other hand, under low stressors, the individual's resources directly predict whether depression will develop or not Stressful life events have been found to be also related to depression among adolescents

The cognitive theorists mentioned above also stress the importance of stressful events in developing depression These researchers viewed negative events as the trigger for depression for individuals who are prone to depression, for instance, in Beck`s cognitive theory of depression (1972), Abramson, and his colleagues' helplessness model of depression (1978), Abramson and his assistants' hopelessness model of depression (1989), and Nezu and his colleagues' problem-solving theory (e g , Nezu, 1987)

Several researchers belonging to the psychodynamic and cognitive models postulated that the stressful events that result in depression need to be matched with individuals' type of personality that is vulnerable to depression There has been an indication that two personality characteristics are considered as vulnerable to depression (Nietzel & Harris, 1990) One type is characterized as the individual's self-esteem relying on acceptance and love from others, whereas, in the other type, the individual's self-esteem depends on achieving a high standard of goals and control Accordingly, some individuals will develop depression if they experience stressful events that contain loss or disappointment in their personal relationships, while others will experience depression when they face negative events containing failure or frustration of their goal achievement

Studies that have been conducted to test these assumptions showed mixed results For example, some studies provided evidence supporting this hypothesis (e g , Hammen, Elliott, Gitlin, & Jamison, 1989, Igreja, & Mongrain, 1990), while other outcome studies were partially supportive Some studies provided evidence supporting the association between dependency and interpersonal stressful events but failed to support the link between self-criticism and negative achievement events (e g , Hammen, Marks, & Mayol, 1985, Lakey & Ross, 1994, Robins, 1990, Rude & Burnham, 1993, Zuroff & Mongrain, 1987), while others supported the link between self-criticism and negative achievement events (e g , Segal, Show, Vella, & Katz, 1992) Furthermore, another line of research found that depressed individuals were significantly higher in self-criticism than individuals suffering from panic disorder, however, there were no differences between the two conditions in

terms of dependency level (Bagby *et al*, 1992)

The importance of stressful events is not restricted only to seeing this event as a trigger for depression, rather, it is given an important role in making one prone to developing depression For example, psychoanalysis theories, as mentioned above, suggest that confronting frustration or disappointment in the early oral stage during the interactions of the child with his/her parents plays a crucial role in later vulnerability to depression Similarly, Beck's cognitive theory suggested that developing negative cognitions (that form one`s view of the self, the world, and the future and that make one prone to depression) is considered to be a result of negative experiences in early life during the early parent-child relationship Regardless of whether individuals prone to depression are fixed on the early oral stage or developed negative cognitions, there has been a considerable body of research demonstrating that depressed individuals have been found to have more aversive childhood experiences than non-depressed individuals (e g , Andrews, & Brown, 1988, Blatt, Wein, Chevron, & Quinlan, 1979, Crook, Raskin, & Eliot, 1981, Holmes & Robins, 1987, Jacobson, Fasman, & DiMascio, 1975, Parker, 1981, Raskin, Boothe, Reatig, Schulterbrandt, & Odle, 1971) Moreover, a meta-analysis conducted by Gerlsma, Emmelkamp, and Arrindell (1990) of studies investigating the perceived parental rearing practices in depressed and anxious patients also provided similar support for neurotic depression

The other line of research that seems relevant to the importance of stressful events on vulnerability to depression includes studies investigating the relationship between parental loss in childhood and developing depression in later life In fact, research examining this issue showed mixed results

Several studies (e g , Frommer & O'Shea, 1973, Pfohl, Stangl, & Tsuang, 1983, Roy, 1981) were supportive, while others were not (e g , Jacobson *et al*, 1975,Perris, Holmgren, Von Knorring, & Perris, 1986) Reviews that have been conducted to evaluate studies dealing with the association between parental death and depression also showed conflict findings For example, Lloyd (1980a,b) concluded that there is relationship between parental loss and developing depression, whereas, Crook and Eliot (1980) reported no relationship between the two factors

Based on this brief review of the hypothesized causes of depression, it appears that there has been an agreement among researchers regarding the crucial role played by stressful events in developing depression Subsequently, currently depressed individuals have experienced one or more negative events Thus, the emotional disclosure task may be more beneficial for those individuals than for healthy individuals, as they have matters that may need to disclose Furthermore, the assumption that depressed individuals have more childhood aversive experiences than non-depressed individuals has been widely supported Accordingly, allowing depressed participants to disclose their perceived problems during their early interactions with their parents seems reasonable Additionally, it can be noted that emphasis has been paid to the appraisal of these events, and even sometimes more than the stressful events per se Therefore, if depressed individuals experience improvements in their depression as a result of disclosing their stressful events, one can assume that they may experience positive changes through appraising these events

CHAPTER 3

LIBYAN CULTURE

Libya covers a large area (1,759,540 sq km) that contains a small population (6,173,579) (CIA-The World Factbook, 2008) The native people are Arabic and Berber Approximately 90 percent of the people reside in less than 10% of the area and the majority of them are urban (Federal Research Division, 2005) Libya is considered to be one of the most conservative countries in the world The social life is dominated by traditional values that are derived from Libyan customs and traditions in addition to Islamic principles (Federal Research Division, 2005)

Since the sample for this study consisted of Libyan depressed individuals, and since Libyan society may has its own features that differ from those of Western societies and even Asian societies, it may be there is a need to shed light on these features to assist in understanding the cultural background of these participants Culture impacts on Libyans' psychological health and plays a significant role in forming their psychological beliefs to the extent that it affects the clinical picture of psychological disorders (see Avasthi, Khan, & Elroey, 1991) Several cultural factors that may influence individuals psychological health and their beliefs are briefly described below Subsequently, it may be possible to elicit the reasons why emotional disclosure may be particularly useful for this society and why a specific model

of emotional disclosure may be more beneficial than the others Thus, a brief description of the features of Libyan society will be provided in the following section However, although some of these factors do not apply to some individuals, these factors are common among the vast majority The crucial factors include

3.1 Family feature:

It should be noted that the following description of the Libyan family mainly reflects the reality as seen by the researcher of this project

Even though several changes have occurred within the Libyan family (e g , financial changes, women working), the family still maintains its main role in the socialization of children Children do not have a high value, although the family is expected to be big (with at least five children) Children are expected to respect their elders, to defer to their parents, to be polite, and do well at school The failure to fulfil these expectations influences the honour of the family and, hence, the children face punishment The most common way of punishing children is by hurting them Kissing or hugging children is common till about the age of one year, but not after that Rewarding children when they fulfil the family's expectations, even when achieving exceptionally good results at schools is uncommon, except that they will avoid their parents` punishment Talking with children is manly based on giving orders or preaching to them

Each member of the family has a role and status according to their age and gender Loyalty to the family reflects the central element of social life in Libyan society The interrelations between the family members are

exceptionally strong, and parents are expected to look after their children as long as the children need them, whether emotionally or financially Children do not leave their parents` house until they get married However, extended families are still common in some parts of Libya, and, in other parts, children, after getting married, reside close to their parents Thus, children in Libyan society are responsible for their parents whether their parents live with them or not Even though there are rest homes for the elderly, putting one's parents in such places is a social stigma

Indeed, this behaviour of honouring parents is based on Islamic principles The Qur`an says

Thy Lord hath decreed that ye worship none but Him, and that ye be kind to parents Whether one or both of them attain old age in thy life, say not to

them a word of contempt, nor repel them, but address them in terms of honour And, out of kindness, lower to them the wing of humility, and say

My Lord! bestow on them thy Mercy even as they cherished me in

childhood (AL-Isra (Isra The night journey, Children of Israel), 23,24)

Becoming adolescent presents challenges for both the adolescent and the parents The parents often try to exert a tighter control on the adolescent out of fear that they may behave in a way that will harm the family s honour Choosing the adolescent s friends and where he can go are examples of this control Adolescents are not allowed to express their disapproval of their parents` orders

Encouraging individuals to repress their upset is another feature of the Libyan family In this society, it is unacceptable to cry in public, regardless of the reason, particularly for men Crying or expressing distress is considered to reduce one`s value, as these are a sign of weakness in a individual`s personality Talking about one`s stressful events or personal problems is also disapproved of in Libyan society For instance, one of the most popular proverbs is that nothing like patience is medication for hurting, holding back your secret is better than releasing it Moreover, repressing distress and upsetting experiences adds value to the individual (e g , I see you do not cry, patience is your character and stressful events do not influence you Yes, I have considerable concerns but someone like me, no one knows his business) People believe that knowing about others' problems may harm honour of the family or the individual

The other aspect of Libyan society is that individual upbringing impresses on people that they should be perfect or nothing (e g , we are people, do not have moderation, we come first, not like other people, or a grave, metaphorically meaning the last position) Therefore, according to Beck`s cognitive theory of depression, mentioned above, this may contribute towards developing dichotomous thinking

3 2 Men and women's positions

Men and women's positions present another cultural factor that influences individuals' psychological health The high status in the family is for the father This status makes the relationship between the father and his children one of master and servant Some aspects of this status include, for

example, the fact that the father may not kiss or hug his children, either girls or boys, in the belief that expressing such feelings may influence his position The decision making is the father`s responsibility, although the oldest son also can sometimes make decisions This authority comes from his gender and prepares him to take this position in the future Caring for the children and their father is the mother's role Girls help their mother in playing this role when they become able to as preparation for their future life

Girls and boys are differently treated in the family, with boys being more favoured This characteristic of the family refers to the fact that Libyan society is paternalistic, with men placed in a higher position than women (similar to other Arabic societies) Thus, girls grow up with the impression that they are less important than boys and they have to cater to them, while boys learn that protecting their sisters, wives, and mothers is their responsibility, as those creature are less intelligent and rational, weaker, and more emotional (Federal Research Division, 2005)

The importance of girls when they become women is restricted to their fertility, specifically, their ability to produce boys The honour of the Libyan family is considerably affected by women` behaviour, mothers, sisters, wives and daughters Women are expected to be circumspect, modest, and decorous The virginity of the women before getting married and their marital loyalty are crucial in maintaining the honour of the Libyan family (Federal Research Division, 2005) The maintenance of the family is very important for the Libyan family (to the extent that a girls who is raped may be killed by her brother, for example, if her family finds out) Losing one's virginity, whether by having sex, being raped, or even accidentally, are treated equally in offending

woman A woman in Libyan society is the offender if she is raped, or she did not produce boys Women are expected to be shy to the degree that shyness is considered to be an essential factor of femininity, as is a woman`s beauty, women who are not shy are regarded as masculine

Reaching adolescence presents a big challenge for girls Their movement, behaviour and manner of dress are not as free as when they were in the childhood stage

Wives usually withdraw from arguments with their husband to keep the peace and harmony within the family They also cede their rights through fear that they may get divorced, as a divorced woman loses respect in society For instance, there is tendency for society to see divorced woman as a failed wife and mother accordingly, and so individuals will treat her warily A divorced woman has to reside with her parents or brother and it is not allowed to reside independently However, if a woman has children, she can stay in her house Yet, whether she stays with her parents or with her children, she suffers from being the offender, has little or no chance to remarry, her relations with others are restricted, and even her clothes have to be modest Her children also suffer from being in a low position, there are doubts about her sexual conduct, and she is regarded as a seductress On the other hand, a divorced man is treated completely different He is the victim who was suffering over of his life due to his divorcee

On the other hand, the mother is expected to be respected and honoured by her children, both boys and girls This status of the mother emerges from the Islamic principles, since the prophet Mohmad (blessings and peace be upon him) said "Paradise under the feet of the mothers" He also said

Narrated Abu Huraira A man came to Allah's Messenger and said, O Allah's Messenger! Who is more entitled to be treated with the best companionship byme?" The Prophet said, "Your mother " The man said "Who is next?" The Prophet said, "Your mother " The man further said, "Who is next?" The Prophet said, "Your mother " The man asked for the fourth time, "Who is next?" The Prophet said, "Your father" (Sahih Bukhari 8, 73,2)

3.3 The traditional view of depression

Apart from the scientific causes of depression that were adopted by the educated class, the vast majority of Libyan individuals believe that depression (like other psychological disorders) was caused by jinn, that possesses the depressed individual due to magic or envy from others Consequently, some individuals seek treatment from 'sheikhs' (people who are believed to have special abilities to deal with jinn) to have the magic or jinn removed by utilizing exorcism and contacting the jinn Other individuals may seek help from those who try to treat depression by employing the Quren

When these efforts fail to treat depression and the depressed individuals and their family realize that these are symptoms of a disorder, they seek help from a specialist and usually keep it hidden from others, as being psychologically ill is stigmatized by society and can result in feelings of embarrassment Generally, those depressed individuals seeking professional help prefer to utilize psychotherapy more than drug therapy This trend seems to be similar to that among depressed individuals in Britain (Hale,1997)

3.4 Religious beliefs

Libyan society adheres to Islam (the Sunni branch) (Federal Research Division, 2005) Although some features of the society are derived from Islamic principles, other features are not matched with these principles Furthermore, there is a number of beliefs that influence the psychological health of the Libyans Some of Islamic beliefs that may influence psychological health will be described briefly below

3.4.1 Men and women in Islam

Unlike Libyan society, Islam considers men and women to have equivalent rights and duties according to the nature of each of them (Al-Qaradawy, 2002) The status of women in Libyan society is similar to that of women in Arabic societies Before Islam, Arabs used to bury females alive when they are infants due to poverty or fear that they will affect their family's honour negatively when they grow up through their sexual behaviour The father also could sell and gift them (Al-Qaradawy, 2002) The Qur'an provides a description of the reactions of the fathers when they were told that their wives had delivered girls

When news is brought to one of them, of (the birth of) a female (child), his face darkens, and he is filled with inward grief! With shame does he hide

himself from his people, because of the bad news he has had! Shall he retain

it on (sufferance and) contempt, or bury it in the dust? Ah! what an evil (choice) they decide on? (AN-Nahl (The Bee), 58-59)

In disapproving and deprecating such fathers, it says "When the female (infant), buried alive, is questioned For what crime she was killed?" (At-Takwir (The Overthrowing), 8-9)

Moreover, women pre-Islam were a type of property They could not inherit nor possess property but, rather, were expected to be the property of the man When he died, his son inherited all of the property, that included women as well (Al-Qaradawy, 2002)

When Islam arose in the Arabic land in the 7th century, female infanticide was forbidden and the equality between men and women was decreed Accordingly, changes have occurred in the status of women in all aspects of social life (e g , marriage, divorced, education, inheritance) (Abdul-Ati, 2008) Some of these changes have been demonstrated in the Qur'an

O ye who believe! Ye are forbidden to inherit women against their will Nor should ye treat them with harshness, that ye may Take away part of the dower

ye have given them,-except where they have been guilty of open lewdness,

on the contrary live with them on a footing of kindness and equity If ye take

a dislike to them it may be that ye dislike a thing, and Allah brings about

through it a great deal of good An-nisa (Women), 19)

And the Prophet (blessings and peace be upon him) in his Last Sermon

emphasises that

O People, it is true that you have certain rights with regard to your women,

but they also have rights over you Remember that you have taken them as your wives only under Allah's trust and with His permission If they abide by your right then to them belongs the right to be fed and clothed in kindness

Do treat your women well and be kind to them for they are your partners and committed helpers And it is your right that they do not make friends with any one of whom you do not approve, as well as never to be unchaste

(Prophet's Last Sermon)

Thus, according to Islam, a woman has the right to inherit ("From what is left by parents and those nearest related there is a share for men and a share for women, whether the property be small or large,-a determinate share" (An-nisa, 7) Women also can work and study As the pursuit of knowledge is incumbent on every Muslim, male and female and she can own and not have to give her property to her husband after getting married Nor does she have the responsibility to spend on her family from her own money (Abdul-Ati, 2008)

According to Islam principles there is no punishment for raped woman Highlights this assumption the following story mentioned in hadith (the Prophet Islam`s words and deeds)

Wa'il ibn Hujr narrated that When a woman went out in the time of the Prophet (peace_be_upon_him) for prayer, a man attacked her and

overpowered (raped) her She shouted and he went off, and when a man came

by, she said That (man) did such and such to me And when a company of the Emigrants came by, she said That man did such and such to me They went

and seized the man whom they thought had had intercourse with her and

brought him to her She said Yes, this is he Then they brought him to the

Apostle of Alla (peace be upon him) When he (the Prophet) was about to pass

sentence, the man who (actually) had assaulted her stood up and said Apostle

of Allah, I am the man who did it to her He (the Prophet) said to her Go

away, for Allah has forgiven you But he told the man some good words

(AbuDawud said meaning the man who was seized), and of the man who had

had intercourse with her, he said Stone him to death He also said He has

repented to such an extent that if the people of Medina had repented similarly, it would have been accepted from them" (Sunan Abu-Dawud, 38,4366)

With regard to how Moslems are expected to treat their children, this

appears in the Prophet Islam`s (may peace be upon him) behaviour towards children, mentioned in following stories

A'isha (Allah be pleased with her) narrated that There came a few desert

Arabs to Allah's Messenger (may peace be upon him) and said Do you kiss your children? He said Yes Thereupon they said By Allah but we do not kiss

our children Thereupon Allah's Messenger (may peace be upon him) said Then what can I do if Allah has deprived you of mercy? Ibn Numair said (We

has deprived) your heart of mercy" (Sahih Muslim, Book,030,5735)

Al-Aqra' b Habis saw Allah's Apostle (may peace be upon him) kissing Hasan He said I have ten children, but I have never kissed any one of them, whereupon Allah's Messenger (may peace be upon him) said He who does not

show mercy (towards his children), no mercy would be shown to him" (Sahih Muslim, Book,030,5736)

3.4.2 Religious beliefs and depression

There are several religious beliefs that may play a role in impacting on one`s mood Moslem individuals believe that losing a dear one or an ideal is a test from Allah Those who pass this test will be rewarded Moreover, Moslems believe that they do not own anything, instead everything belong to Allah and, subsequently, they will be returned to Him (Al-Qarni,2003, Al-

Munajjid, 1999) As the Qur`an says

> Be sure we shall test you with something of fear and hunger, some loss in goods or lives or the fruits (of your toil), but give glad tidings to those who patiently persevere Who say, when afflicted with calamity "To Allah we belong, and to Him is our return" (Al-Baqara (The Cow), 155-156)

This importance of religious beliefs has led several researchers to consider suffering from psychological disorders as a consequence of leaving Islamic religion (e g , Al-Munajjid, 1999) In particular, depression has been regarded as an outcome of sinning and a lack of belief in fate and destiny (الفقهي, 2005) In fact, this belief is based on the Qur`an, since the Qur`an says " But whosoever turns away from My Message, verily for him is a life narrowed down" (Ta-Ha (Ta-Ha), 124) Moreover,(الفقهي, 2005) stated that faith, generally, is a factor that plays an important role in protecting people from developing depression, whether through thanking Allah (God), patience, istighfar (this will be described below), responding to Allah`s orders and avoiding what He forbids, all of which are core conditions in protecting one from developing depression Furthermore, according to الفقهي, Islamic principles generate strength in the self which helps the individual in dealing with the stressful events that s/he faces successfully

3.4.2.1 A belief in destiny

Moslem individuals (including Libyans) believe that their destiny is decreed and preordained by Allah and s/he has to accept His judgment (Noor Al-Deen, 2004) Believing in destiny is considered to be one of pillars of

Islamic doctrine as mentioned in hadith in that

> He (the angel Gabriel, peace be upon him) said, "Inform me about Iman (faith)" The Holy Prophet (peace and blessings be upon him) replied, "That you affirm your faith in Allah, His angels, His Books, His Apostles, the Day of Judgment, and you affirm your faith in destiny (qadar), its good and its evil" He (the angel Gabriel) said, "You have told the truth" (Sahih Muslim, Book 1, 1)

Therefore, believing that one partially controls what is happening to him/her may contribute to appraising the event in a way that does not affect self-esteem nor cause a depressed mood Moreover, there is a view that stressful experiences may seem aversive but indeed may include benefits that cannot be realized at the moment but, in the long-term, may appear, or, even if not, they may still have latent benefits For this reason, it is common in Libyan society to say "May it be good" when one confronts upsetting experiences This view of upsetting events emerges from the Qur'an in that it says "it may be that ye dislike a thing, and Allah brings about through it a great deal of good" (An-nisa, 19) Also " But it is possible that ye dislike a thing which is good for you, and that ye love a thing which is bad for you But Allah knoweth, and ye know not" (Al-Baqara, 216)

Additionally, there is a belief that after (or accompanying) any upsetting experience, definitely there will be vanishing (Al-Qarni, 2003) In that the Qur'an says "So, verily, with every difficulty, there is relief Verily, with every

difficulty there is relief" (Al-Inshirah (solace, consolation, relief, 5, 6) In Arabic literature, there are numerous proverbs that reflect this view and, usually, a Libyan repeats them to himself/ herself or to others when they face difficulty, for example, "*maybe after the sadness that you are experiencing close vanishing will occur*"

Libyan individuals, like other Moslems, believe that people do not experience difficulties bigger than their capacity to cope with them Thus, they think that they should be able to deal with their stressful events that are expected to be matched with their ability (الفقهي,2005), For example, the Qur`an states that "On no soul doth Allah Place a burden greater than it can bear" (Al-Baqara, 286), "On no soul do We place a burden greater than it can bear before Us is a record which clearly shows the truth they will never be wronged" (Al-Mumenoon (the believers), 62)

3.4.2.2 Viewing suffering from depression as earning expiation

Libyans, as Moslems, believe that the severity of the psychological pain serves as a way of increasing the depressed person`s good deeds and decreasing his/her bad deeds (Al-Munajjid, 1999) This belief is derived from the Prophet's (blessings and peace be upon him) statement that "Nothing of fatigue, illness, distress, worry, grif or harm befails the Moslem, not even a prick from a thorn, but Allah will accept it as expiation for some of his sins" (Al-Munajjid, 1999, page,22)

Moreover, an individual suffering from depression or other psychological disorders and somatic disease is considered to be lucky in some respect, as s/he will have the chance to reduce some of his/her bad deeds (Al-Munajjid,

1999) In that the Prophet (blessings and peace be upon him) said

"You are a slave for whom Allah wishes good When Allah wishes good for His slave, He hastens the punishment for his sin, when he does not wish good for

His slave, he withholds the punishment until the matter is settled on the Day of Resurrection, when all of his sins will be brought forth together" (Al-

Munajjid, 1999, page, 23)

3.4.3 Ways of dealing with difficulties

Libyan people (as other Moslems) use several ways to control their depressed mood when they face stressful events, and some individuals practice one of these ways to protect themselves from becoming depressed particularly with some types of supplication, or istighfar (Al-Munajjid, 1999) It should be noted that there is an indication that these ways will be effective, but the person needs to believe in advance that the way s/he acts will be effective In fact, this belief refers to the feeling that Allah will respond to His good believers (Al-Munajjid, 1999) There follows a brief description of some of these ways that are practised

3.4.3.1 Supplication (du'a')

One of the most common ways of dealing with depressed mood is supplication (Al-Munajjid, 1999) Supplication has been considered to be as important as worship itself in that "Narrated An-Nu'man ibn Bashir The

Prophet (peace be upon him) said Supplication (du'a') is itself the worship (He then recited) "And your Lord said Call on Me, I will answer you") (Sunan Abu-Dawud, Book8, 1474)

It has been believed that supplication is powerful to the degree that it can change fate(Al-Munajjid, 1999) Through supplication, Moslems believe that they admit the majesty and ability of Allah who encourages His believers to supplicate to Him before and after facing troubles (Al-Munajjid, 1999) As reflection to the importance of supplication in Islam the Qur`an includes a number of chapters that encourage people to supplicate For example,

When My servants ask thee concerning Me, I am indeed close (to them) I listen to the prayer of every suppliant when he calleth on Me Let them also,

with a will, Listen to My call, and believe in Me That they may walk in the right way (Al-Baqara, 186)

" And your Lord says "Call on Me, I will answer your (Prayer) but those who are too arrogant to serve Me will surely find themselves in Hell - in humiliation!" (Al-Ghafir (The forgiver (Allah), 60)

Moslems believe that, when they supplicate, they will obtain benefits anyway, whether their concerns disappear immediately, disappear on the last day, or they are protected from similar difficulties (Matmainaa, 2006) There are a number of favourite conducts that are followed during supplication, for example, assertion in supplication and trusting that Allah will respond, supplicating humbly, and supplicating in a low voice (Matmainaa, 2006) Several recommendations have been offered to increase the probability of accepting supplication, for example, choosing favourable times, such as

supplication during Ramadan, while its raining, at midnight, traveller supplication, and oppressed supplication (Islam Awareness, 2008)

There are numerous supplications in Islamic literature that can be uttered in different situations (e g , when leaving a house, in the morning, in the evening, after praying, before sleeping, and entering or leaving the mosque ((Matmainaa, 2006)

Supplications that are said when feeling depressed

An example of supplication that is employed to protect one from being depressed is "O Allah, I seek refuge with you from distress, grief, incapacity, laziness, miserliness, cowardice, the burden of debt and from being overpowered by men" (Al-Munajjid, 1999, page, 27)

As a treatment method, there is also a number of supplications that are said by an individual when s/he feels depressed For instance, "There is no God but Allah, the Lord of the mighty Throne, there is no God but Allah, the Lord of heaven, the lord of earth, and the Lord of the noble Throne" (Al-Munjjid, 1999, page, 29-30)

Patient Generous of Allah but Allah Almighty Allah, the Lord of Heaven

Sobhan seven employer throne great Praise to Allah, Lord of the

Worlds) "I

am God and to Him we return please God in calamity and succeed me

well

for it (Al-Munjjid, 1999, page, 29)

O Allah, I am your slave, the son of your slave and the son of your maidservant, my forelock is in Your hand, Your command over me is forever executed and Your decree over me is just I ask You by every name belonging to You which You have named Yourself with, or revealed in Your Book, or You taught to any of Your creation, or You have preserved in the knowledge of the Unseen with You, that You make the Qur`an the life of my heart and the light of my breast, and a departure for my sorrow and a release for my concern" (Al-Munjjid, 1999, page, 28-29)

O Allah, make me adhere properly to my religion, on which all my affairs depend, make this world good for me in which is my livelihood, make my Hereafter good for me, in which is my ultimate destiny, make my life incease in every good thing and make my death a respitr from every evil" (Al- Munjjid, 1999, page, 28)

"O Allah, for Your mercy I hope, so do not leave me in charge of my affairs There is no God except You" (Al-Munjjid, 1999, page, 30)

3.4.3.2 Reading the Qur`an

The other method that Libyans utilize to overcome their difficulties that has a religious feature is reading the Qur an (Al-Munjjid, 1999) As there are indications in the Qur`an that reading it inspire security for the reader and makes him/her calm down For instance, "Those who believe, and whose hearts find satisfaction in the remembrance of Allah for without doubt in the remembrance of Allah do hearts find satisfaction!" (Al-Rad (The thunder), 28)

"Had We sent down this Qur'an on a mountain, verily, thou wouldst have seen it humble itself and cleave asunder for fear of Allah Such are the similitudes which We propound to men, that they may reflect" (Al-Hashr (Exile, Banishment), 21)

Reading the Qur`an can be employed in two ways  The first way is that the Qur`an is read by the person himself/herself when s/he feels depressed (Al-Munjjid, 1999) Herein, some people think that reading any part or chapter in the Que`ran can result in improvements in one`s mood Others think that reading particular chapters is beneficial (e g , AL-Baqara, AL-E-imran (The family of 'Imran, The house of 'Imran), YA-Seen (Ya-Seen) (Al-Munjjid, 1999) The second way is through utilizing what is called eroquia (مكاوي, 2008) By utilizing eroquia, several parts of specific chapters for improving one`s mood can be read (مكاوي, 2008) In this case, the depressed individual himself/herself can read or someone else can do that The crucial thing is that these particular parts are read (مكاوي, 2008)

What is not clear is how do these changes occur, whether the Qur`an`s words have a spiritual impact, or the feeling that one`s difficulty is now in Allah`s hands and s/he trusts in Allah His/her affairs are entrusted to Him who will choose and achieve the best thing

3.4.3.3 Praying

Libyan people, like other Moslems, pray when they confront stressful events or when they feel depressed with no clear reason justifying their mood Here, it should be noted that this prayer is not one of those that Moslems have to pray as one of the pillars of Islam doctrine Rather, it is a prayer that

Moslems can practice if they wish (AL-Munjjid, 1999) This prayer can be at any time The Qur`an says "Nay, seek (Allah's) help with patient perseverance and prayer It is indeed hard, except to those who bring a lowly spirit" (AL-Baqara,45)

3.4.3.4 Istighfar

Istighfar is a crucial part of worship in Islam Istighfar means seeking forgiveness from Allah (Baige, 2006) It is performed by saying numerous statements (that will be mentioned below) It is believed that when one makes istighfar for the self and others (e g , parents, all Moslems males and females), this will obtain greater benefits than making it just to the self (Baige, 2006) There are number of chapters in the Qur`an that encourage Moslems to make istighfar For example, the last part of Al-Muzzzmmil (The Enshrouded one, Bundled up) "for Allah is Oft-Forgiving, Most Merciful" (Al-Muzzzmmil, 20), and other chapters of the Qur an

A Benefits of istighfar

Istighfar is believed to have a number of benefits Some of these benefits have been derived from the Qur`an, and others not The benefits of istighfar that are mentioned in the Qur an include, bliss, rain, strength, children and wealth The chapters that contain these meanings are as follows

(And to preach thus), 'Seek ye the forgiveness of your Lord, and turn to Him in repentance, that He may grant you enjoyment, good (and true), for a term

appointed, and bestow His abounding grace on all who abound in merit! But

if ye turn away, then I fear for you the penalty of a great day (Hud,3)

"And O my people! Ask forgiveness of your Lord, and turn to Him (in repentance) He will send you the skies pouring abundant rain, and add strength to your strength so turn ye not back in sin!" (Hud,52)

"Saying, 'Ask forgiveness from your Lord, for He is Oft-Forgiving, 'He will send rain to you in abundance, Give you increase in wealth and sons, and bestow on you gardens and bestow on you rivers (of flowing water)" (Nooh, 10,11,12)

The Islam Prophet (peace be upon him) also mentioned some of the benefits of istighfar, for example, decreasing distress, in that he said

> Narrated Abdullah ibn Abbas The Prophet (peace be upon him) said If anyone continually asks pardon, Allah will appoint for him a way out of every distress, and a relief from every anxiety, and will provide for him from where he did not reckon (Sunan Abu-Dawud, Book 8,1513)

The other benefits of istighfar that may not be mentioned in the Qur`an include reducing depressed mood, pleasing Allah, gaining Allah`s love, making one close to Allah and love Him, controlling one`s deeds in order to be according to Allah s desire, attenuating one s bad deeds, being useful when facing stressful events, distancing from engaging in bad deeds, helping in not forgetting Allah, providing the easiest way to worship Allah, reducing feelings of guilt, sadness, and repentance, making one more kind, reducing the difficulty in doing one's duty, increasing feelings of security, and generating

power in heart (,اسلام ويب2008) These important aspects of istighfar may be made the Prophet (peace be upon him) performed it as many as a hundred time in that "Narrated Abdullah ibn Umar We counted that the Apostle of Allah (peace be upon him) would say a hundred times during a meeting "My Lord, forgive me and pardon me, Thou art the Pardoning and forgiving One" (Sunan Abu-Dawud, Book 8,1511)

B Times of istighfar

It is believed that istighfar can be made any time the individual needs to do so (,اسلام ويب2008) However, there are some times that may be more favourable than others, such as after practicing the pillars of Islam doctrine (the reason herein is to ask Allah forgiveness for these pillars not having been done well) in that Allah asks His believers to perform istighfar after pilgrimage, as the Qur`an says "Then pass on at a quick pace from the place whence it is usual for the multitude so to do, and ask for Allah's forgiveness For Allah is Oft-forgiving, Most Merciful" (Al-Baqara, 199)

The other time preferred for making istighfar is after doing good deeds, and in the early morning, as the Qur`an says

"Those who show patience, Firmness and self-control, who are true (in word and deed), who worship devoutly, who spend (in the way of Allah), and who pray for forgiveness in the early hours of the morning" (AL-E-Imran,17)

"They were in the habit of sleeping but little by night, And in the hour of early dawn, they (were found) praying for Forgiveness" (Adh-Dhariyat (The Winnowing winds), 17, 18)

It has been believed that, this time, Allah responds to people`s queries about helping, forgiveness and supplication (,اسلام ويب2008) The other time

believed to be favourable for istighfar is after leaving meetings with people It is thought that, during this meeting, one may commit some sins (e g , say something bad), so it is advisable to ask Allah for forgiveness (اسلام ويب, 2008) Istighfar for dead person is also preferred, in that hadith says "Narrated Uthman ibn Affan Whenever the Prophet (peace be upon him) became free from burying the dead, he used to stay at him (i e his grave) and say Seek forgiveness for your brother, and beg steadfastness for him, for he will be questioned now" (Sunan Abu-Dawud, Book 20, 3215)

There are a number of reasons that make individual performs istighfar, for example, committing sins, as the Qur`an says "Say "O my Servants who have transgressed against their souls! Despair not of the Mercy of Allah for Allah forgives all sins for He is Oft-Forgiving, Most Merciful" (Az-Zumar (The Troops, Throngs) ,53), "But, without doubt, I am (also) He that forgives again and again, to those who repent, believe, and do right, who,- in fine, are ready to receive true guidance" (Ta-Ha (Ta-Ha),82)

The other reasons for making istighfar is facing upsetting events, experiencing stressful feelings, such as depression and anxiety, or just to be closer to Allah (اسلام ويب, 2008)

Since istighfar is an important part of worship, Libyans, as other Moslems, do istighfar not only when they are depressed, facing stressful experiences, or have sinned but also when they do not have any concerns In these cases, istighfar is believed to provide protection against, for instance, being depressed, or worried (اسلام ويب, 2008) As the Qur`an says "But Allah was not going to chastise them while you were among them, nor is Allah going to chastise them while yet they ask for forgiveness" (AL-Anfal (Spoils of

war, Booty), 33)

Accordingly, as a result of this importance of istighfar, some Libyans tend to increase their amount of istighfar if they become depressed or confront upsetting experiences It should be noted that it is extremely important for Moslems that istighfar has to be from the heart not just a moving tongue (اسلام ويب, 2008)

C Several examples of istighfar

Even though there are numerous statements of istighfar, some of the most common statements of istighfar only will be mentioned below Generally, all the statements of istighfar are derived from either the Qur`an or hadith (اسلام ويب, 2008) Despite of the variety of these statements, all of them connote asking Allah for forgiveness It should be noted that these statements can be said regardless of the reasons for performing istighfar (اسلام ويب, 2008) Thus, distressed individuals differ in terms of which one they say

C.1 Master of istighfar

O Allaah, you are my Lord None has the right to be worshipped but You

You created me and I am Your slave, and I am faithful to my covenant and

my promise (to You) as much as I can I seek refuge with You from all the

evil I have done I acknowledge before You all the blessings You have

bestowed upon me, and I confess to You all my sins So I entreat You

to

forgive my sins, for nobody can forgive sins except You

(Mutmaniaa,2007)

C.2 General istighfar

"Our Lord! we have indeed believed forgive us, then, our sins, and save us from the agony of the Fire" AL-E-Imran (The family of 'Imran, The House of 'Imran),16)

"Glory to our Lord! Verily we have been doing wrong" (AL-Qalam (The Pen), 29)

"There is no god but thou glory to thee I was indeed wrong!" (AL-Anbiya (The Prophets), 87) Glory be to Thee! to Thee I turn in repentance, and I am the first to believe" (AL-Araf (The Heights), 7)

"Glory be to Thee, O Allah, our Lord, and praise be to Thee, O Allah, forgive me" (Sahih Muslim, Book4, 981)

"O Allah! I ask You, O Allah, You are the One, the Only, Self Sufficient Master, who was not begotten and begets not and non is equal to Him Forgive me my sins, surely you are Forgiving, Merciful "(Mutmainaa, 2007)

3.4 3 5 Reappraisibg depressed experience

Libyan individuals also re-evaluate the depressed experience, since, when one becomes depressed, for example, s/he views this experience as having a positive side in that it decreases his/her bad deeds as mentioned above

3.4.4 Depression among Early Muslim Theorists

Depression was one of a number of psychological disorders that were known by Muslim scholars (الفقهي, 2005) The term depression was not utilized among those theorists Instead, several terms were suggested, for example, Alham- Alwajed, obsession and melancholia, and sadness (الفقهي, 2005) Depression (and even several psychological disorders) was not demonstrated in detail by the early Muslim theorists There were just a few references when they were dealing with other issues (e g , believing in Allah) Therefore, some of their indications that are related to depression will be outlined

For example, Al-Kindi (801-866) called depression "sadness", and he defined it as psychological pain, leading to losing pleasure and ignoring desirable goals Al-Kindi reported some suggestions to prevent one from developing depression For example, one should like and want what is available, not be upset that something has gone, if you could not be what you want, want what you are (الفقهي, 2005) AlbIki considered sadness to be a result of phobia (الفقهي, 2005) He reported that phobia is more severe than sadness, since sadness strongly begins like fire, while sadness is like embers after the flames die down AlbIki indicated that sadness has somatic and psychological symptoms, such as a reduction in one`s activities, manifesting pleasure, and enjoyment in activities that were previously enjoyable (الفقهي, 2005)

Al- Ghazzali (1058-1111) was also one of the Muslim theorists who reported some ideas regarding depression The term that was given by Al-Ghazzali to depression is "Al-wajed" The causes of al-wajed, as assumed by Al- Ghazzali, for example, are remembering negative experiences, receiving

punishment, missing an absent one, and feeling guilty concerning an experience that had happened in the past (,القفهي2005) These descriptions of depression provided by early Muslim theorists in part were influenced by the Quren (,القفهي2005) (e g , "That ye grieve not for the sake of that which hath escaped you, nor yet exult because of that which hath been given Allah loveth not all prideful boasters ", Al-Hadid, 23)

CHAPTER 4

OVERVIEW OF THE RATIONAL FOR THE THESIS

The findings from the earlier experimental research and meta-analyses have provided evidence to enhance the effectiveness of the disclosure procedure on both physical and psychological health However, several important questions remain unanswered adequately, most notably what is the mechanism through which the disclosure procedure results in desirable changes in health? This will be one of the three tasks to be undertaken in the present study The following section will undertake this task

4.1 The first aim of this study

Despite the beneficial effects of emotional disclosure on health, the basic mechanism underlying this procedure has not been explained adequately Hence, a primary motivation for conducting this study lies in the shortage of empirical study investigating the mechanism through which the disclosure procedure leads to improvements in health It has been suggested that individuals who suffer from distress show cognitive deficiency that hinders the coping process (Beck, 1972, Billings, Cronkite, & Moose, 1982, Clark, 1993,

Gotlib, & Hammen, 1992) Disclosing stress-related thoughts and feelings has been found to have beneficial effects on cognitive function Pennebaker *et al* (1990), for example, found that participants who were in the experimental condition reported that the importance of the intervention emerges from them gaining a better understanding of their thoughts, feelings and behaviours Pennebaker (1985) reports that, when individuals express their stress-related feelings and thoughts, individual's perceptions and feelings about these events are verbalized He adds that this verbalization leads to the cognitive reorganization of these perceptions and feelings Thus, it is possible that the linguistic expression of a troubling event may encourage individuals to re-evaluate the experience, potentially producing new perceptions, and gaining a wider perspective and deeper understanding of their stressor The extension of perspectives and re-evaluation of previous appraisal may lead to positive changes in one's emotional state Thus, it is hypothesized that the positive effects of the disclosure procedure on psychological health, specifically depressive symptoms, might be accounted for by the principle of the cognitive restructuring of the troubling circumstances Figure 4 1 presents the hypothesized mechanism of change produced as a result of disclosing stressful events

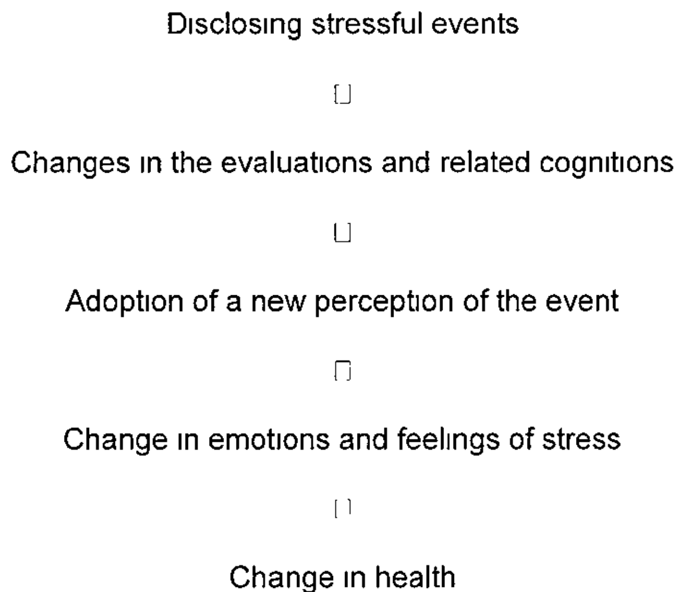


Figure 4.1: Hypothesized mechanism of change produced by emotional disclosure

The following paragraphs provide a summery of the rationales, derived from the theory and research, for the hypothesized mechanism for accounting for the beneficial changes resulting from the disclosure procedure

Although Pennebaker's original theory supports the inhibition theory as an explanation of the effectiveness of emotional disclosure, Pennebaker later realized that disclosing upsetting experiences is a sign of insight instead of a cathartic processes (Pennebaker, *et al*, 1990) Thus, Pennebaker replaced his original inhibition theory with the assumption that "changes in basic cognitive and linguistic processes during writing predict better health" (Pennebaker, 1997, p 162)

In line with this view, Pennebaker *et al* (1988) proposed that talking or dealing with upsetting experiences actively leads to their cognitive assimilation

or completion Pennebaker (1985) has assumed several suggestions regarding how emotional disclosure results in this assimilation A discloser may deal with some different aspects of the event, or putting one`s thoughts and feelings into words may make the event more understandable to the person Further, Pennebaker and Susman (1988) reported that " writing about or confronting traumatic is beneficial in that it helps the person understand, resolve, and find meaning in the experience" (p 332)

Disclosing stress-related thoughts and feelings includes structuring and organizing these thoughts and feelings so that they become more orderly and less repetitive (Kenny-Moore &Watson, 2001) Kacewicz, Slatcher, and Pennebaker (Kacewicz, Slatcher & Pennebaker, in press) report that the preferential endpoint of putting troubled feelings into a linguistic format and its therapeutic effect may be the construction of a narrative According to these scholars, disclosing upsetting experiences tends to motivate the generation of more coherent and comprehensive description and account of the experiences To develop a coherent narrative of an event, individuals provide background information, clarify, elaborate, explain, mention causes and effects, highlight points, draw connection and categorize particulars (Clark, 1993, Ringlet & Bruce, 1982) These processes may lead the disclosers to view their circumstances from a new angle and realize new aspects of the stressful events, hence, promoting opportunities for extending their perspectives and changing or modifying their former evaluation

Additionally, Lazarus (Lazarus, 1991) indicates that stressful events that are represented linguistically may be reassimilated and, in turn, reappraised, thus they may be accepted and integrated into the experience Pennebaker

(2003) and Pennebaker and Seagal (1999) also note that putting stress-related thoughts and feelings into words may lead to the reorganization of stressful events and to thinking about them in a different way This beneficial effect of the disclosure procedure on cognitive functioning has been highlighted also by Pennebaker *et al* (1988), who report that disclosing upsetting experiences may result in achieving a better understanding of the causes and effects of these events

Hence, it is plausible that the linguistic representation of thoughts and feelings related to stressful events may lead to changes in the evaluations of how these events are interpreted and coped with, which ultimately results in a reduction in troublesome feelings Rogers (1951) stated that "When the perception changes, the reaction of the individual changes" (page, 486) Further, Beck (1972), Frijde (1986) and Hammen (1988) point out that particular emotions (such as depression) and behaviour associated with an event depend on how it is appraised Moreover, Lazarus (1991) indicates that the best way to make troublesome feelings less painful may be through changing the appraisals that led to stress in the first place Therefore, the recovery from distress (according to Lazarus, 1991) is produced by developing more positive appraisals Studies by Pennbekar (e g , Pennbekar, 1993, Pennbekar & Beal, 1986) bolster this notion, since the participants who obtained benefits from the disclosure procedure reported statements such as "It made me think things through", "It helped me to look at myself from the outside", "It was a chance to sort out my thoughts", "It helped me think about what I felt during that time I never realized how it affected me before", I had to think and resolving past experience To have to write emotions and feelings

helped me to understand how I felt and why" "Although I have not talked with anyone about what I wrote, I was finally able to deal with it, work through the pain instead of trying to block it out It does not hurt to think about it" Others indicated that representing their upsetting events linguistically forced them to think about these events differently

Indeed, various ways of assessing cognitive restructuring have been proposed, for example, content analysis, self-reports about the frequency of intrusive thoughts concerning stressor, and self-reports regarding changes in believes and attitudes towards stressed events These ways reflect the differences in the views of cognitive restructuring (as linguistic changes, reduction in the frequency of intrusive thoughts about stressful events, or changes in believes and attitudes towards stressful events) Thus, the aim behind designing each approach is the desire to find evidence to support cognitive restructuring resulting from the disclosure procedure according to each of these views However, the research seeking evidence of cognitive restructuring, as measured by each of these methods, has not been supported adequately The following paragraphs summarize these methods and their limitations

According to the content analysis method, cognitive change has been defined "as the use of words in two general text dimensions self-reflective thinking and causal thinking The self-reflection category includes words such as *realize, understand, think,* and *consider* The causal thinking category includes words such as *cause, effect, reason,* and *because*" (Pennebaker, Mayne, & Francis,1997,p 2) Thus, the content of written essays, over writing sessions, has been analyzed to determine percentages of words used in

these essays Although several researchers (e g , Klein & Boals, 2001, Pennebaker, 1993 , Pennebaker *et al*, 1997 , Pennebaker & Francis, 1996 , Petrie, Booth, & Pennebaker, 1998) have found health improvements to be associated with the increasing usage of insight and causal words across disclosure sessions, others have failed to replicate such findings, so that, some studies, although they have found that emotional disclosure results in beneficial effects, these effects, however, were unrelated to the increases in the use of insight and causal words (for instance, Lepore,1997, Wiprzycka *et al*, 2008, Middendorp & Geenen, 2008, Pennebaker, 1997) Other research studies have found that participants in disclosure conditions showed an increase in the proportion of their use of insight and causal words across sessions However, the participants in these studies did not benefit from the disclosure procedure (for example, Batten, Follette, & Palm, 2002, de Moor *et al*, 2002, Reynolds, Brewin, & Saxton, 2000, Warner *et al*, 2006) Additionally, measuring cognitive restructuring depending on counting the number of words in the disclosers` assignments has been criticized by several researches, for example, Lepore, Greenberg, and Smyth (2003) consider that this approach lacks accuracy

Another approach measuring cognitive restructuring is through investigating changes in the frequency of intrusive thoughts by employing self-reported questionnaires This approach is based on the assumption that emotional expression reduces psychological stress by diminishing the effects of intrusive thoughts (Lepore, 1997) However, studies investigating the impact of the disclosure procedure on intrusive thoughts produced conflicting results For instance, Klein and Boals (2001) found that participants disclosing

stressful events showed a reduction in the number of their intrusive thoughts Other researchers, however, have not replicated these findings For example, Lutgendorf, Antoni, Kumar and Schneiderman (1994) did not find any relationship between a reduction in intrusive thoughts and changes in health Other scholars even found that emotional disclosure had null effects on intrusive thoughts (e g , Baikie & McIlwain,2008, de Moor *et al*, 2002, Lepore,1997, Lepore and Greenberg ,2002, Smyth *et al*, 2001, Stroebe Stroebe, Schut, Zech, & van den, 2002, Swanbon *et al*,2008, Zakowski, Ramati, Morton, Johnson, and Flanigan, 2004) In other studies, even though no benefits were obtained from disclosing upsetting experiences, the participants demonstrated a reduction in the number of their intrusive thoughts (e g , Guastella, *et al*, 2008, Park & Blumberg, 2002) Furthermore, several researches consider utilizing the frequency of intrusive thoughts as a measure for cognitive restructuring to provide an indirect assessment of cognitive restructuring (e g , Lepore *et al*, 2003)

Another way in which researchers examine cognitive restructuring is to measure changes in beliefs and attitudes using self-reports (e g , Donnelly and Murray, 1991) Although, Donnelly and Murray (1991)`s study links disclosing stressful feeling with changes in beliefs and attitudes, other investigators have not replicated these findings (e g , Lepore & Greenberg, 2002, Murray, Lamnin, & Carver, 1989, Murray & Segal, 1994) Furthermore, the questionnaire utilized for measuring cognitive restructuring as reflected in changing beliefs and attitudes is of unknown reliability

Based on this brief review of the measurement of cognitive restructuring it seems that, to date, no such measure has been found that does not suffer

from serious problems (Lepore *et al*, 2003) This shortage of a scale for measuring cognitive restructuring can be attributed to the lack of a precise definition of this phenomenon We need to determine what cognitive restructuring is, that results in subsequent changes in behaviour and emotional state Therefore, changes in the language utilized for expressing stressor-related thoughts and feelings, intrusive thoughts about stressors, and beliefs and attitudes towards the stressor may become signs of it Therefore, the research proposed herein aims to provide a more operational definition of cognitive restructuring and to use this definition in the development of more precise way to measure it Cognitive restructuring is defined as changing one's perceptions about one's stressors, and the way in which these stressors are viewed, interpreted and dealt with Therefore, measuring cognitive restructuring will be based on measuring changes in one`s perception and way of thinking in one's circumstances What follows presents the rationale emerging from scholarly speculation about why changing one's perceptions may be the best definition for cognitive restructuring

Cognitive theorists argue that experiences are problematic when they thwart the existing schema (schema are defined as ways of organizing thoughts, feelings, and actions) and experience-related information cannot be assimilated into people's prior knowledge and beliefs about themselves and the world Thus, in order to accommodate the stressful event, individuals should change their existing schema or interpretation of the stressful experience (Hones-Webb, 2002) Hamilton (1982), Mandler (1982), Taylor (1983) and Pennebaker (1985) highlight this view that, in attempting to accommodate their perception of the world, distressed individuals may try to

change their beliefs about the world or their interpretation of the stressful event As mentioned above, Rogers (1951) also highlights the importance of perception in forming one`s behaviour, in that making alterations in one`s behaviour results from alterations in one`s perceptions Taken together, it seems that accommodating effectively stressful experience requires changes in one`s perceptions about this experience Specifically, there have been numerous outcomes studies to show that depressed individuals manifest a distortion in their perceptions (e g , Abramson, 1983, Hamilton & Hollon, Rogers & Forehand, 1983, Karoly & Ruehlman, 1983, Larson & Munoz, 1982). Moreover, there have been indications that depressed patients perceive their environmental events in a negative way (Beck, 1972, Hammen, 1988, Gotlib, & Hammen, 1992) and this perception has been found to be associated with their depressive symptoms (Gotlib, & Hammen, 1992) Moreover, it has been stated that depressive symptoms are based on the way in which stressful events are perceived rather than the events per se (e g , Beck, 1972, Hammen, 1988, Krantz & Hammen, 1979) Beck (1972) reports that individuals` perceptions of experiences determine their mood, and, since depressed persons adopt negative perceptions, s/he tends to have a negative mood Hence, one could assume that participants who benefit from the disclosure procedure would demonstrate positive changes in their perceptions about their stressor Hence, it may be that the most effective method for measuring cognitive changes is by measuring changes in one's perceptions about one's stressor To achieve this aim pragmatically and directly in a short time, with less effort, and lower cost, a self-rated questionnaire with satisfactory psychometric properties is developed

4.2 The second aim of this study

Despite the considerable body of evidence supporting the association between emotional disclosure and health outcomes, several researchers have failed to replicate these findings (e g , Baikie & McIlwain,2008, Batten *et al*, 2002, de Moore *et al*, 2002, Corter & Petrie, 2008, Gortner, Rude, & Pennebaker, 2006, Jennifer and Stanton, 2008, Kloss and Lisman, 2002 , Kunkle, 2000, Lepore and Greenberg, 2002, Lewis *et al*, 2005, Park & Blumberg, 2002, Pennebaker *et al*, 1988, Reynolds *et al*, 2000, Robin, Ronald, and Nand, 1999, Schwartz and Drotar, 2004, Stroebe *et al*, 2002, Taylor, Wallander, Anderson, Beasley, & Brown, 2003, Warner *et al*, 2006) This null effects of disclosing stressful events has been also found in the meta-analysis of dozens of studies conducted by Mead, Lyons, and Carroll (2003) Meads and her colleagues attribute these findings to the kind of samples that has been employed to evaluate the beneficial effect of emotional disclosure In agreement with Mead *et al*, it is possible that utilizing healthy participants accounts for these conflicting results among the disclosure literature In fact, the results obtained from studies employing the standard paradigm must be treated with some caution, however, as there is virtually no emotional disclosure study dealing with psychologically disordered samples Instead, the overwhelming majority of those studies have been conducted with samples consisting mainly of healthy participants who were not pre-selected due to suffering from a particular psychological disorder, and the vast majority of them were college students between the ages of eighteen and twenty four Subsequently, the situation, in these cases, was incomparable to the

problems regarding which individuals seek psychotherapy, so that the participants may not have any serious stressful events to disclose, and, hence, will be unable to benefit from the intervention In particular, there have been indications that emotional disclosure is more effective for individuals who have severe stressors (Greenberg & Stone, 1992, Pennebaker *et al*, 1987) Further, the participants may not initially feel a need for this intervention as they may not lack effective coping mechanisms Additionally, a question that is posed is how could changes in symptoms that do not exist be measured? Briefly, it seems that there may have been a sample selection bias leading to these conflicting results Based on this, another major issue that has not been addressed by previous research is whether emotional disclosure is indeed an effective approach to helping patients to reduce their symptoms, or whether this intervention is not strong enough to have a sufficient effect on the psychological health of individuals who are seriously ill

In fact, there has been an effort (Gidron, Peri, Connolly, & Shalev, 1996) to utilize a patient sample diagnosed with posttraumatic stress disorder (PTSD), as defined by the American Psychiatric Association (1994) The findings indicated that the participants in the disclosure condition showed greater avoidance symptoms and a greater number of health centre visits compared to those in the control condition at five weeks following the intervention However, as mentioned in chapter 1, this study had several weaknesses to the extent that it is impossible to draw conclusions from its findings

Given the lack of empirical un-confounded investigation examining the association between disclosure procedure and health outcomes utilizing a

psychiatric sample, the sample that will be employed in the current study is selected from the patient population, since there has been less attention paid to assessing the impact of emotional disclosure on psychological health compared to physical health In particular, there is no emotional disclosure study dealing with a clinically depressed sample, in spite of the general agreement that major depression is the most widespread mental health problem (e g , Feighner & Boyer, 1991, Wolman, Stricker, & Series, 1990) However, there is a number of research studies dealing with the impact of the disclosure procedure on depressive symptoms among individuals, who have been formerly diagnosed as depressed, among students and medical (e g , breast cancer) samples Much of this research is statistically (e g , Austenfeld, *et al*, 2006, de Moor, 2001, Lang, Schoutrop, Schrieken, & Van de Ven 2003, Lepore, 1997, Schoutrop *et al*, 2002, Sloan *et al*, 2005, Sloan & Marx, 2004a, Smith, Anderson-Hanley, Langrock, & Compas, 2005, Solace *et al*,2003) and clinically (e g , Sloan *et al*, 2005, Sloan & Marx, 2004a) well supported by the hypotheses that a reduction in depressive symptoms is produced as a result of engaging in emotional disclosure Although, in all these studies, the participants were not clinically depressed, these findings may provide some evidence for justifying the expectation that patients who would be encouraged to disclose troublesome feelings would obtain better outcomes regarding their symptoms reduction compared to those in the control condition

Nevertheless, there are reasons to suspect that the disclosure procedure may result in a reduction in the depressive symptoms of individuals who clinically depressed Firstly, it has been found that the disclosure procedure is more effective for participants whose personality is inhibited emotionally

(Pennbeker & Beal,1986, Pennebaker *et al*, 1990), which is one of the typical psychological aspects of depression (e g , Beck, 1972) Secondly, the disclosure procedure appears to be specifically beneficial for participants who have suffered serious stressful events (Greenberg & Stone, 1992, Pennebaker *et al*, 1987), which is also one of the generally accepted features of depression (for reviews of studies dealing with this issue, see Billings *et al*, 1982, Lloyd, 1980, Paykel, 1979) Thirdly, the disclosure procedure seems to be more beneficial for individuals who lack coping mechanisms (Bootzin, 1997), which is also a prominent feature of depression (Billings *et al*, 1983) Fourthly, the disclosure procedure is most beneficial for individuals who have a tendency to ruminate on their thoughts (Pennebaker & Susman, 1988), which is also a characteristic feature of depression (Beck, 1972) Finally, it has been found that emotional disclosure produces beneficial cognitive change (e g ,, Donnelly & Murray, 1991, Lang *et al*, 2003, Pennebecer, 1993, Pennebaker, 1997, Schoutrop *et al*, 2002), that has been found to play a role in decreasing depressive symptoms in two studies employing non-clinical samples (Lang *et al* 2003, Schoutrop *et al* 2002), Hence, it may be reasonable to assume that disclosure procedure would reduce depressive symptoms in depressed individuals who have a disturbance in their cognition(e g , they evaluate themselves and perceive environmental information in a negative way, and their depressive symptoms are associated with their negative interpretation) (Beck, 1972, Gotlib, & Hammen, 1992)

Exploring the effectiveness of disclosure in depressive symptoms employing participants suffering from depression has two motivations The first is theoretical, while the second is practical From the theoretical

prospective, the findings that will be obtained from this study may drive researchers to replicate similar study in clinical samples consisting of patients suffering from other disorders

In practice, providing information on the efficacy of emotional disclosure in the patient sample might fill such a gap in the existing literature, that has indicated the importance of examining changes resulting from disclosure intervention in a clinical sample in order to investigate the potential clinical utility of disclosure intervention (e g , Bootzin, 1997 , Esterling, L`Abate, Murray, & Pennebaker,1999, Pennebaker, 1997 ,Smyth, 1998), particularly for a clinically depressed sample (Kacewicz, *et al*, in press) Moreover, with the rising rate of severe depression, there is an insistence among many researchers, therapists and other practitioners that there is truly a pressing need to develop approaches that lead to achieving the greatest effects in the shortest time (Costello, 1993, Gilbert, 1992 , Gotlib & Hammen, 1992) The disclosure procedure is one technique that may help to realize this ideal It has been considered as a cost-effective and mass-oriented method for treating depression (Esterling *et al*, 1999) Consequently, the disclosure approach has been recommended to be applyied as an adjunct to or substitute for some medical and psychological treatment (Esterling, *et al*, 1999, L`abate, 1991, Pennebaker, 1997)

4.3 The third aim of this study

In order fully to understand how the disclosure procedure works, it is essential to investigate the features of this procedure that may facilitate the

cognitive mechanism of change Specifically, we need to determine which feature(s) of the disclosure procedure is most effective in facilitating these health-enhancing mechanisms The features of disclosure that may impact on cognitive change and health outcomes and have been investigated include disclosing orally to a tape recorder, disclosing orally to a supportive listener, disclosing orally to a challenging listener, and written disclosure However, there have certainly been no previous attempts to determine which of these features produce the most beneficial outcomes Thus, this issue will be the other aim of this study

Studies investigating the feature of disclosure that leads to the best outcomes have exclusively focused on comparing talking versus writing, or comparing different types of talking (e g , talking to a supportive listener vs talking to a challenging listener vs talking alone) Moreover, the number of these studies is limited and the majority of them are methodologically problematical In previous work, there have been attempts to compare disclosing orally to a psychotherapist (who was a supportive listener) and written disclosure (e g , Murray *et al*, 198) A major problem with such work is that there was more than one independent variable in one of the experimental conditions The researchers instructed the participants in the writing disclosure (an absent audience) to write about their stressful events, while the participants in the psychotherapy condition (present audience, oral expression, receiving supportive feedback) were instructed to disclose orally their stressful events to a psychotherapist who was a supportive listener Murray *et al* found that participants in the psychotherapy condition showed more beneficial cognitive and behavioural changes and self-esteem than

those in the writing condition However, it cannot be possible from these findings to determine whether the produced effects refer simply to the presence of a listener or could have been due to receiving emotional support or to the fact of making disclosure orally Hence, it cannot be concluded that oral disclosure is superior to written disclosure based on this study Murray and his colleges confounded three features of the disclosure procedure in the psychotherapy condition (disclosing orally, disclosing to a listener, and receiving supportive feedback), making it impossible to know which feature of disclosure resulted in the observed outcomes As Esterling *et al* (1999) indicate

> In comparing psychotherapy and written expression, two
> important factors are necessarily confounded First,
> psychotherapy involves an interpersonal interaction The therapist
> may have ameliorated the residual negative mood experienced

in

> the written condition Such an effect might have been important in
> keeping a person dealing with an emotional trauma until
> processing was complete Second, psychotherapy differs

from written expression, in that it involves vocal emotional

expression whereas the other does not (p 83)

There have also been efforts to compare disclosing orally into a tape recorder with written disclosure (e g Esterling *et al*, 1994) Esterling and his assistants found that, compared with written disclosure, oral disclosure leads to lower Epstein-Barr virus antibody titers as measured by blood samples

(indicating better immune functioning), in addition to more changes in cognition, self-esteem and adaptive coping strategies However, it is impossible to draw conclusion based on these results regarding the benefits of oral disclosure compared to written disclosure Esterling *et al*'s study suffered from several limitations Firstly, the methodological concern is the lack of a control group against the oral disclosure group to control the impact of oral expression as a controlled variable Thus, it is impossible to determine whether disclosing orally or simply oral expression contributed to the observed outcomes Another concern is that the gender variable was not matched between the conditions, although there have been some indications that gender differences may influence the outcomes connected with the disclosure procedure, whereby males appear to benefit more from the disclosure procedure than females (Smyth, 1998)

To determine the most effective form of disclosure, that produces the most beneficial outcome, another line of research has been conducted to compare different types of oral disclosure These comparisons have aimed to compare (1) disclosing orally to self with disclosing orally to another person, and (2) disclosing orally alone, disclosing orally to a supportive listener, and disclosing orally to a challenging listener

A unique study comparing disclosing orally to self and disclosing orally to an attending audience was conducted by Pennebaker *et al* (1987) Their findings showed that talking about stressful events into a tape recorder exhibited a greater level of beneficial changes compared to talking about them to a silent confessor behind a curtain However, it is unclear from this study whether the observed effects were due to disclosing to a tape recorder or the

absence of a listener Thus, drawing conclusions from this study regarding the beneficial effects of disclosing alone compared with disclosing to another person is problematic, and Pennnebaker and his colleagues confounded some of the distinguishable variables

A study that was conducted to compare disclosing orally alone, disclosing orally to a supportive listener, and disclosing orally to a challenging listener was undertaken by Lapore, Ragan, and Jones (2000) In this study, the findings indicate that talking alone or talking to a supportive validating confederate are more beneficial than talking to a challenging listener on intrusive thoughts and stress However, this study exhibits several limitations that prevent it being possible to use its findings to draw any conclusion regarding the best feature of emotional disclosure Firstly, and most notably, the participants were instructed to talk about their thoughts and feelings related to an external stressor instead of disclosing personal material Secondly, the course of the disclosure was too short (two minutes for two sessions) Moreover, even though the oral language variable was controlled by utilizing the no talking condition, the content of the disclosure was not controlled (for a study employing a similar procedure and, hence, exhibiting similar limitations, see Lepore, Fernandez-Berrocal, Ragan, & Ramos, 2004)

Establishing the most effective expressive style for abating depressive symptoms and producing positive cognitive change has theoretical and practical importance Theoretically, such research may provide us with a better understanding of how and why the disclosure procedure works Distinguishing particular forms of the disclosure procedure may substantially enrich and deepen our theoretical understanding of the underlying

mechanisms that lead to cognitive restructuring and its consequent beneficial impacts on depressive symptoms Therefore, attempts to determine the exact features of the disclosure procedure that produce beneficial effects may improve our knowledge regarding the effective element of the disclosure procedure and why this element is effective

The practical justification for determining the expressive style that produces the most beneficial reduction in depressive symptoms may enable those dealing with children, teenagers or even adults, such as parents, teachers and social workers, to urge them to articulate their feelings through the most effective form This may contribute towards protecting them in the early phases from developing depressive symptoms or other health problems It has been found that childhood traumatic experiences that are not discussed are highly associated with current health problems - both major (e g , cancer, high blood pressure) and minor (e g , weight loss and skin rashes) (Pennebaker & Susman, 1988) Further, childhood stressful events have been found to predispose individuals to suffer from depression (Lloyd, 1980a) However, a reverse relationship has been found between widows discussing their spouses`death and the health problems they suffered from the following a year (Pennebaker & Susman, 1988) Moreover, Kelly and Mckillop (1996) reviewed the theories and empirical findings related to the impact of exploring stressful feelings that were kept as personal secrets They concluded that the overwhelming majority of the literature supports the notion that exploring personal secrets is beneficial to the secret keeper

Additionally, practitioners, such as therapists, counsellors, and researchers, wish to be aware of the assured and most effective manner of

the disclosure procedure in order to apply it or to suggest to their users that they should apply it

Based on the problems found in previous work aimed at determining the conditions under which disclosing upsetting events produces the most desirable effects, directions for the current study were established Thus, this study sought to correct the problems identified in previous work by investigating the features of the disclosure procedure that result in the most beneficial outcomes The features of the disclosure procedure that appear to influence the observed outcomes are written disclosure, disclosing orally into a tape recorder, disclosing orally to a supportive listener, and disclosing orally to a challenging listener The suggested research aims at examining these features systematically and in a coherent way Thus, the third aim of this study is to see whether the positive outcomes of disclosing stress-related thoughts and feelings are best produced when the participants are instructed to write, talk into a tape recorder, talk to a supportive listener, or talk to a challenging listener, about their stress-related thoughts and feelings The following paragraphs show the reasons taken from scholarly speculation anticipating that disclosing to a challenging listener, disclosing to a supportive listener, disclosing to a tape recorder, and disclosing via writing may have different effects on cognitive restructuring and psychological health Relevant studies, even though do not definitively resolve this problem, are also shown

There are reasons to expect that participants disclosing their troublesome feelings orally to a challenging listener would show the best beneficial changes in the dependent variables compared to those who disclose these feelings via writing, orally into a tape recorder, or orally to a supportive listen

Firstly, there have been indications that there is strong evidence to suggest that the beneficial effect of emotional disclosure is associated with framing a narrative about one`s experience This framing is critical and is an indication of an improvement in physical and mental health (Pennebeker & Seagal, 1999) It has been reported that individuals who obtain benefit from the disclosure procedure are those who exhibit progress in building a coherent narrative (Esterling *et al*, 1999) In particular, the cognitive changes that occur as a result of disclosing upsetting experiences indicate that the formation of a narrative may play a central role in the value of the disclosure procedure (Pennebaker & Francis, 1996) Thus, one could assume that disclosing troublesome feelings in a coherent way is more beneficial than so doing in a chaotic way (Kacewicz, *et al*, in press) The findings from Smyth and his associates (Smyth, *et al*, 2001) boost this notion, since the participants who describe their stress-related thoughts and feelings coherently showed the greatest benefit from the disclosure procedure The beneficial effect from a good narrative is that it makes a complex experience simpler and more understandable (Pennebeker & Seagal, 1999) Further, forming a narrative may be essential in achieving understanding or knowledge (Kacewicz, *et al*, in press) "Inherent in this understanding is the ability to stand back and look at oneself from different perspectives " (Kacewicz, *et al*, in press page, 16) It is plausible that expressing stress-related thoughts and feelings to a challenging listener may be specifically more helpful because, by being challenged about thoughts and feelings, the discloser may try to make an additional effort to generate organized narratives that represent stressful events in a logical sequence New information, alternative ways of constructing an experience,

different thoughts and interpretations provided by a challenging listener, in addition to the questions posed by this confederate, may urge the discloser to create more coherent and thorough descriptions of his/her stressful event and justifications for his/her reactions to it Further, when a discloser frames a narrative for the challenging confederate, s/he takes this dissimilarity into consideration, which generate a desire to create a more comprehensive narrative of the event This creation require the discloser to elaborate, evaluate, provide more background details related to the event, and work harder to present a rationale for his/her reactions (Clark, 1993) Additionally, as Esterling *et al* (1999) indicate "Coherence subsumes several characteristics including structure, use of casual explanation, repetition, and an appreciation of the listener`s perspective" (p 85) All of these processes may lead the discloser to realize different or even new faces of the stressful event which, ultimately, may promote cognitive restructuring

Therefore, when a discloser frames a narrative to a challenging confederate, s/he may construct his/her upsetting experience and respond to it more coherently than if disclosing it to a supportive listener, into a tape recorder or through writing

Another reason for anticipating that disclosing an upsetting experience to a challenging listener may be the most beneficial format is that it may draw attention to different perspectives which, in turn, could potentially alter or at least modify the discloser`s perspective in a positive way There have been indications that disclosing troublesome feelings has to be accompanied by an associative correction in order to be beneficial (Murray, *et al*, 1989) A challenging listener is likely to play this role, since s/he may enhance the

creation of an alternative perspective of the stressful events Further, s/he may provide the opportunity for the discloser to modify or extend his/her explanation subsequently, increasing his/her understanding about the upsetting event and his/her response to it Exposing a discloser to different ideas and alternative ways of thinking, provided by a challenging listener, may encourage the discloser to engage in broader discussion and thinking, and observe different perspective, which may make the discloser adopt alternative explanations, and think about stressful material differently This extending of perspectives can facilitate the re-evaluation of the former appraisal of an experience

In sum up, disclosing to a challenging listener may impact on several factors that are crucial to the discloser`s ability cognitively to restructure or re-appraise his/her stressful event The challenging listener may motivate the reframing of a coherent story and the fostering of cognitive restructuring, including a new way of looking at the stressful experience and the self Thus, the formative process of generating a coherent narrative and the importance of a multiple perspective that may emerge from noticing different perspectives may be the critical elements in making disclosing to a challenging listener result in the best outcomes for cognitive restructuring and depressive symptoms measures Pennebaker (2003) notes that, through the various studies conducted by himself and his co-workers, disclosers who develop a coherent narrative and who can alter their perspective from one session to another are most likely to exhibit improvements in their health

However, it is also possible that disclosing stress-related thoughts and feelings to a supportive listener may produce the most beneficial cognitive and

emotional outcomes A supportive listener is conceptalized as a confederate who provides strategies much like those exhibited by a distressed individual (Thoits, 1986) In fact, there are several researchers who anticipate that more advantages result from disclosing orally to a supportive listener In particular, several scholars suggest that multiple perceptions and re-evaluation are best facilitated when one receives similar feedback For example, Thoits (1986) suggests that a listener who provides similar perceptions of and similar responses to a discloser's experience may be the most effective source of coping Thoits (1986) adds that, in communicating with a supportive listener, the listener may enhance or elaborate on an interpretation generated by a distressed discloser that emerged from communicating with a supportive listener Lepore (2004) also highlights this expectation, since a supportive confederate is more likely to enable a distressed individual to broaden his/her thinking and decrease his/her stress than an unsupportive one The crucial role of disclosing to a supportive listener in facilitating cognitive change has also been speculated by Clark (1993), who indicates that "Reflecting back the explanation provided by the distressed individuals might provide that individuals with the opportunity to correct or elaborate on aspects of the explanation, thus increasing their sense of understanding about the stressful situation and their reactions to it" (p 44)

In the psychotherapy literature, there have also been indications of the importance of providing individuals with similar feedback Rogers (1980), for instance, is among those researchers who placed great importance on the empathic relationship between a patient and a psychotherapist He went on to consider therapist empathy (with unconditional acceptance and genuineness)

to be the central element in therapeutic change Empirical evidence from this literature also supports the beneficial effects of reflecting back an individuals' thoughts and feelings on psychotherapy outcomes This evidence comes, particularly, from person-centered therapy in that, a patient's perception of a therapist as empathically understanding has been found to be related to patient improvement (e g , Barrett-Lennard, 1962, Kurtz & Grummon, 1972, Saltzman, Luetgert, Roth, Creaser, & Howard, 1976, Sapolsky, 1965)

It is possible that disclosing in ways that give validation to the discloser's interpretations and responses may encourage the discloser to provide more details about the stressor at hand This may help the discloser to realize new aspects of the stressful event and his/her response to it in ways that were impossible before this conversation Further, accepting and providing support for the discloser's interpretations and his/her reaction may make the discloser feel more confident, which may motivate him/her to go into a deeper analysis of the event, his/her interpretation of it and reactions, and to reevaluate them These realizations, analysis, and reevaluation may help the discloser to achieve the best cognitive restructuring which, ultimately, changes his/her stress-related emotions and feelings, while a dissimilar discloser may prevent him/her from communicating effectively Individuals may be discouraged from expressing their thoughts and feelings openly If individuals become demoralized, they may not generate a discourse that leads to noticing causes and effects, increasing understanding and re-evaluating former interpretations These might lead to small opportunities to extend the disclosers' perspectives Decreasing the opportunities to re-evaluate former interpretations and reactions, and to broaden the perspective, that is produced

from dissimilar the discloser` s interpretations, and is likely to hinder the benefits expected from the discloser procedure on depressive symptoms

On the other hand, there are theorists who predicate the greatest beneficial effects from writing about stress-related thoughts and feelings In particular, several researchers suggest that cognitive restructuring is best facilitated by the specific features that are inherent in written language For instance, Kacewicz *et al* (in press) note that

> The mere act of writing also demands a certain degree of structure as well as the basic labeling or acknowledging of their emotions All of these cognitive changes have the potential for people to come to a different understanding of their circumstances (page, 18)

Clark (1993) reports that, compared with speaking, writing is more detached and has a greater imposition of structure, these features may specifically lead individuals to develop a new perspective and to accept the aspects that cannot be changed in their circumstances, which, in turn, might lead to a decrease in anxiety This ability to write in re-evaluating and create a new perspective has also been speculated by Pennebaker (2003) Pennebaker (2003) suggests that the mere act of writing is that it forces the writers to "stand back and re-evaluate their lives" (p 289) Further, writing about upsetting experiences makes disclosers think about their experiences in different ways (Pennebaker, 2003) According to these scholars, writing should promote cognitive restructuring Specifically, it can develop a different

understanding and create a new perception

Indeed, the utility of writing has been extended to include considering it as an effective therapeutic technique for psychological disorders This consideration emerges from the ability of writing to facilitate cognitive restructuring. For example, Esterling *et al* (1999) indicate that writing about stressful experience leads to changes in cognition, behaviour, and emotion This function of writing may result in a decline in depressive symptoms These researchers add that writing per se is a powerful therapeutic method and, without receiving feedback, this technique can promote psychological health (Esterling *et al*, 1999) L`Abate, (1991) enhances this therapeutic value of writing when he reports that "Those with certain character disorders, tend to reveal in writing more than they can disclose orally" (p, 93). Kacewicz *et al* (in press) also state that "Writing forces people to stop and reevaluate their life circumstance, which is especially relevant for people suffering from mental illness" (p 18)

These therapeutic impacts may be a result of the cognitive restructuring produced through writing

Within the discourse literature, there have also been indications of the specific characteristics of written language that may make cognitive restructuring best facilitated through this mode For instance, Brewin and Lennard (1999) and Redeker (1984) note that written language requires more integration and structure than spoken language Poole and Field (1976) found that writing provides greater opportunities for structural planning and corrective self-feedback Lakoff (1982) suggests that writing is more planned, organized and precisely edited and less spontaneous Thus, if written

language is less spontaneous (Lakoff,1982), and more structurally planned, with greater opportunities for corrective self-feedback (Poole & Field, 1976), then discourse produced by writing about stressors may lead to greater cognitive restructuring and so, subsequently, emotional recovery

However, it is plausible that disclosing stress-related thoughts and feelings into a tape recorder result in the best changes in the dependent variables It has been found that participants who do not disclose their upsetting experience suffer from the effects of inhibition (Pennebaker & O'Heeron, 1984, Pennebeker & Susman, 1988) Thus, inhibition itself may present other stressor that influence the outcomes Pennebaker indicates that disclosing to an attending listener physically can produce inhibition, hence, presenting a listener for disclosure can be detrimental Inhibition is a result of disclosing in the presence of another person, hence, there is a disadvantage to presenting a listener for disclosure (Pennebeker *et al*, 1987, Pennebeker & O'Heeron, 1984)

Attending a listener per se may hinder the participants from expressing their stress- related thoughts and feelings frankly This inhibition may decrease the depth of their revelation, the participants may omit some sensitive points or aversive parts of the stressor and minimize their descriptions of it By omitting such points and parts of the stressor, the discloser may miss opportunity to view new aspects of the experience, re-evaluate the previous interpretation and extend his/her perspective This reduction in the opportunity for cognitive restructuring resulting from the impacts of inhibition decreases the beneficial effects of the disclosure procedure on depressive symptoms The central element of the disclosure

procedure is releasing stress-related feelings and thoughts, hence, if these feelings and thoughts are inhibited, the effectiveness of this intervention will decrease Therefore, disclosing into a tape recorder may make the participants less inhibited, consequently, they produce a discourse that leads to greater cognitive restructuring, and decreases depressive symptoms

The other factor may make disclosing into a tape recorder produce the most beneficial changes in cognitive restructuring and depressive symptoms refers to several features that are inherent in spoken language For instance, Clark (1993) anticipates that "The personal, fragmented, repetitive, and idea-laden features of speaking may actually lend itself more to the generation of novel insights, to reevaluation or reappraisal of the situation and to elaboration of ideas that aid in problem solving" (p 47)

The ability of oral language to enhance insight has been anticipated by several scholars For instance, Clark (1993) and Kennedy-Moore and Waston (2001) speculate that speaking may make individuals gain insights into their stressful events more than writing them down The discourse literature suggests that spoken language seems to be less edited (Lakoff, 1982), more spontaneous and faster than written language (Chafe, 1982) Thus, "there are more ideas in speaking per unit of time, whereas there are more ideas per number of words in writing" (L abate & Kern, 2003 p 240) Ultimately, the speaker may produce more material about an upsetting experience than a writer (Esterling *et al*, 1994) Thus, when individuals disclose their stress-related thoughts and feelings into a tape recorder, they may be more spontaneous and produce more material There is less editing and, hence, an increased opportunity for cognitive restructuring Therefore, they may

experience a greater reduction in their depressive symptoms

Unfortunately, research investigating whether there are differences between the impact of disclosing orally to a challenging listener, disclosing orally to a supportive listener, disclosing into a tape recorder, and disclosing via writing with dependent variables has not yet been addressed However, there are attempts to compare written disclosure with talking to a supportive listener, oral disclosure, talking into a tape recorder with talking to a silent listener, and talking alone, with talking to a supportive listener along with talking to a challenging listener These attempts are even limited and the majority of them suffer from serious methodological problems, to the extent that these findings should not be depended on to draw conclusions

Investigating the impact of writing about stressful events and talking about them into a tape recorder has revealed comparable effects A study conducted by Murray and Segal (1994) compared the effects of writing about upsetting events with talking about them into a tape recorder The researchers found that there are no significant differences between the participants regarding written or oral disclosure in terms of cognitive and affective changes

Other study investigating the differences between the effectiveness of disclosing orally into a tape recorder with disclosing via writing is methodologically problematic In this study (Esterling *et al*, 1994), the researchers found that talking into a tape recorder leads to better outcomes for cognition, self-esteem, adaptive coping, and health than writing did However, Esterling and his colleages did not employ a control group versus an oral experimental condition to control the impact of talking per se on the dependent variables Further, the experimental conditions were not matched

regarding gender This confounding of the variables that should be controlled make it impossible to determine the effectiveness of either variable

Other studies comparing the effects of disclosing via writing with disclosing to a supportive listener, disclosing into a tape recorder with disclosing to a silent listener, and disclosing to a supportive listener with disclosing to a challenging listener, along with disclosing alone, had several limitations One such study (Murray *et al*, 1989), comparing written disclosure with disclosing orally to a supportive listener, found that oral discloser had a greater impact on cognition, self-esteem, and adaptive behaviour changes than did written disclosure However, Murray (1989) confounded several modes of the disclosure procedure that need to be carefully distinguished (for a study following similar procedure and, hence, similar confounds, see Donnelly and Murray, 1991) Due to the confounding distinguishable variables in the experimental conditions, conclusions about the impact of either variable cannot be drawn

A study comparing the effects of talking into a tape recorder with talking to a silent confessor about stressful events has proved methodologically defective Pennebaker *et al* (1987) compared the effects produced by talking into a tape recorder and talking to a silent confessor behind a curtain about stressful events The researchers found that disclosing into a tape recorder is superior to disclosing to a silent listener However, the two conditions did not match regarding utilizing a tape recorder, making it impossible to draw conclusion from this study about the superiority of talking alone as compared to disclosing to a listener

Research investigating the effects of receiving supportive feedback,

challenging feedback and no feedback at all also exhibits several limitations In one such study (Lepore *et al*, 2000), the researchers found that talking alone or talking to a supportive validating confederate are more beneficial than talking to a challenging listener on intrusive thoughts and stress However, this study suffered from serious limitations that make it impossible to rely upon such findings to draw conclusion regarding the effectiveness of either feature of the disclosure procedure (for a study that followed a similar procedure and, thus, has similar limitations, see Lepore *et al*, 2004) The first concern is that the participants were instructed to talk about their feelings and thoughts related to an external stressor (a scene about the Holocaust) that might not have a similar effect as disclosing a personal stressful event It has been found that health benefits occur when severe personal stressful events are disclosed (Greenberg & Stone, 1992) Further, talking about highly personal stressful events has been found to produce a greater beneficial effect on health than talking about less personal and less stressful events (Pennebaker *et al*, 1987) The other limitation is that the duration of the interventions were brief, since they lasted only two minutes, which may not be enough to detect the real differences between the conditions, or to bring about cognitive change

To sum up, scholarly speculation and research do not suggest definitively the superiority of any particular feature of the disclosure procedure Specifically, it has not yet been determined whether disclosing via writing, disclosing orally to a supportive listener, disclosing orally to a challenging listener, or disclosing orally into a tape recorder is most effectively in facilitating cognitive restructuring The existing research has not addressed

this issue and even the attempts that partly addressed it exhibit serious problems Thus, this study is designed to avoid the problems identified in previous work

4.4 Experimental instructions

A further issue that may influence the outcomes obtained from the disclosure procedure is the experimental instructions for the disclosure group This issue is related to the topic being disclosed and the time since the event Even though, in the standard instructions, participants in experimental conditions are asked to disclose the most traumatic and upsetting experience of their entire life (e g , Pennebaker *et al*, 1988), several researchers have extended the topic of disclosure to include more positive events, for instance, writing about life goals (King, 2001) or the perceived benefits of traumatic events (King & Miner, 2000) In the current study, following the standard instructions, the participants in the experimental conditions were instructed to disclose their thoughts and feelings related to their upsetting experience Pennebaker (1997) has emphasized the importance of the disclosure topic on outcomes and the necessity of choosing a topic that is appropriate to the purpose of utilizing the disclosure procedure For instance, he indicated that, for new college students, disclosing emotional issues related to coming to college affects their grades more than disclosing traumatic experiences Since there has been a considerable body of evidence supporting the role of negative life events in the onset, course and relapse of severe depression, for instance, Paykel (2003) reviewed the literature dealing with the association between stressful life events and the occurrence of severe depression He

reported that the majority of studies have found that stressful life events are followed by severe depression at higher rates in depressed participants relative to the control groups Furthermore, a relapse of severe depression is also affected by negative life events Williamson, Birmaber, Dahl, and Ryan (2005) compared the frequency of stressful life events in anxious and depressed children along with normal children as a control Their findings indicated that depressed children experience more negative events than anxious and normal children Harkness and Monroe (2006) investigated the association between the level of stressful life events and the type of depression (unipolar versus bipolar) The findings showed that severely stressful events precede the onset of major depression, while minor stressful events precede the onset of bipolar disorder Since, as mentioned above, the impact of stressful events depends on a person's perception of these events, it is probably more beneficial for depressive symptoms and cognitive restructuring to ask the participants to disclose their upsetting stress-related thoughts and feelings rather than positive experiences Furthermore, since there has been considerable research connecting the onset of depression in later life and experiencing aversive child-parents relationships (e g ,Andrews, & Brown,1988, Blatt, Wein, Chevron, & Quinlan, 1979, Crook, Raskin, & Eliot, 1981, Gerlsma, Emmelkamp Arrindell (1990), Holmes & Robins, 1987, Jacobson, Fasman, & DiMascio, 1975, Parker, 1981, Raskin, Boothe, Reatig, Schulterbrandt, & Odle, 1971), the participants were permitted to disclose their stressful perceived experiences

With regard to the time since the stressful event, according to the standard instructions, treatment participants are asked to disclose their stressful events

during their entire life (e g , Pennebaker *et al*, 1988) However, several researchers have instructed the participants in the disclosure group to disclose past stressful events (e g , Batten, *et al* 2002, Pennebeker & Beal, 1986), whereas others have asked them to disclose current ones (e g , Pennebaker, 1990) Pennebaker and Suman (1988) found that disclosing early and current stressful experiences produced positive effects on health Thus, asking depressed patients to disclose past and current issues may be more beneficial than them disclosing only past events Further, in the meta-analysis work, (Fertilo, 2006) found that the psychological effect size is greater when the participants are given examples of what to disclose, therefore, the participants in the current study were provided with examples of what they can disclose

CHAPTER 5

METHOD

This chapter deals with the methodology that was followed to examine the research hypotheses detailed in previous chapter The following is a description of the study design, the pilot study, the participants, procedure, and the instruments that were employed in conducting this study

5.1 Design

This study employed a random experimental between-participants (8x3) design, with eight groups and assessment periods at baseline, immediately after finishing the course of disclosure and after four weeks The independent variables (disclosing stressful events) were manipulated Thus, participants in four conditions were instructed to disclose their stressful events (related to the past, current and the past or current over three consecutive days respectively) via writing or talking to a supportive listener, a challenging listener, or alone Participants in the other four conditions were the control groups who were asked to talk or write about trivial topics The dependent variables were depressive symptoms, as measured by the Beck Depression Inventory second edition (BDI-II), and cognitive change as measured by the Cognitive Restructuring Questionnaire

5.2 The Pilot study

The sample included in the pilot study was three females Their mean age was 31 67 and the standard deviation was 4 73 All of them were married, one had a high school level education, one had a university degree and one was a postgraduate student There were three aims in conducting the pilot study The first aim was to check to which extent disclosing stressful materials to a challenging listener has a positive impact generally and on cognition specifically The second aim was to see if the items of the questionnaire intended to assess cognitive restructuring were clear The third aim in conducting the pilot study was to explore whether the duration of disclosure suited the material intended to disclose The pilot study provided the researcher of this project with an indication that disclosing upsetting events to a challenging listener can be beneficial in general and might lead to cognitive restructuring particularly Moreover, the researcher ensured that the items on the Cognitive Restructuring Questionnaire were clear, as there were no any comments or questions regarding these items from the participants Further, based on the pilot study, it was decided to modify the number of events needed to be disclosed each session

5.3 Research participants

The participants in this study were patients suffering from severe depression, as diagnosed by an experienced psychotherapist according to DSM-IV criteria Due to constraints on the time, the participants were taken from two places Al-Rahmma Clinic, and PenieWalid Clinic, where only psychotherapy has been utilized To ensure

that any alterations in the outcome measures could be attributed to the experimental manipulation, patients were excluded if they were taking psychotropic medication or were addicted to drugs Further, they were excluded if they were illiterate or refused to record their voice

As mentioned in chapter 1, there has been a limited number of studies utilizing a patient sample to investigate the effectiveness of the emotional disclosure procedure Consequently, there is no recommendation regarding the sample size that is required to attain a specified power value Due to constraints on time, 120 participants were recruited to the study, providing 15 participants for each of the eight conditions 68 participants were recruited from Al-Rahmma Clinic and 52 participants were recruited from PennieWaleed Clinic There were up to 5 participants each week from Al-Rahmma Clinic, whereas there were up to 3 participants each week from PennieWaleed Clinic The data collection was held over an approximately 21 week period (13/01/07 to 11/06/07 including the delayed post-test) It should be noted that the recruitment of the participants continued until fifteen participants in each condition had completed the BDI-II from both clinics All of the recruited participants signed to participate, with 95 (74 17 % of the original sample) of these completing the intervention

Of the 95 who completed the study, 57 were recruited from AlRahmma Clinic (11 of whom did not complete the study) and 38 were recruited from PeneeWaleed Clinic (14 of whom did not finish the intervention) Table 5-1 shows the participation and attrition by clinic recruitment

Table 5-1

Participation and Attrition by Clinic Recruitment

Clinic	Participants who completed	Participants who did not	Total
Al-Rahmma Clinic	57	11	68
PenieWelled Clinic	38	14	52
Total	95	25	120

According to the conditions, the participants who dropped out were three from the talking alone experimental condition, four from the talking to a supportive listener control condition, one from the writing experimental condition, four from the talking alone control condition, four from the writing control condition, two from the talking to a challenging listener experimental condition, four from the talking to a supportive listener experimental condition, and three from the talking to challenging listener control condition Table 5-2 illustrates the participation and attrition according to the conditions

Table 5-2

Participation and Attrition according to Conditions

Conditions	Participants started	Participants completed	Participants dropped out
disclosed orally to a tape recorder condition	15	12	3
trivial talking to a supportive listener control condition	15	11	4
disclosed writing condition	15	14	1
trivial talking control condition	15	11	4
casual writing control condition	15	11	4
disclosed orally to a challenging listener condition	15	13	2
disclosed orally to a supportive listener condition	15	11	4
trivial talking to a challenging listener control condition	15	12	3
Total	120	95	25

The mean score for the participants on the BDI was 32 44 (SD= 5 91) This classified participants as having severe depressive symptoms according to the cut-off scores on the BDI

The participants were 54 males and 41 females, ranging in age from 17 to 46 (M=27 84, SD= 7 59) The males` age ranged from 17 to 46 years (M= 29 02, SD=8 63), while the females` age ranged from 18 to 39 years (M=26 29 SD=5 68) The majority (76 8 %) was unmarried, while 21 1% were married, and 2 1% were divorced or separated Regarding their educational level, some of the sample (35 8 %) mentioned high school, 31 6% were at university level or had a university degree, 28 4% were at secondary level, and 4 2% had a diploma Table 5-3 presents the number of participants randomly assigned to the experimental and control groups

Table 5-3

Number of Participants Randomly assigned to the Experimental and Control Groups.

Participants	Men	Women	Total
disclosed orally to a tape recorder condition	7	5	12
trivial talking to a supportive listener control condition	6	5	11
disclosed writing condition	7	7	14
talking alone control condition	6	5	11
casual writing control condition	6	5	11
disclosed orally to a challenging listener condition	9	4	13
disclosed orally to a supportive listener condition	6	5	11
talking to a challenging listener control condition	7	5	12
Total	54	41	95

5.4 Dependent Measures

The dependent measures in this study consisted of (1) questionnaires filled in by the participants, and (2) judges' ratings questionnaires filled in by several experts There follows a description of those measures

5.4.1 The measures that the participants were asked to complete for each wave of data collection contained :

5.4.1.1 A Self-report Measure(pre-test)

This questionnaire included a series of background questions that assessed demographic characteristics gender, age, education level and marital status Moreover, it gave the participants a broad overview of the main aims of this study (see appendix A)

5.4.1.2 Beak Depression Inventory BDI (pre-test, post-test, and delayed post-test)

Participants completed, on three occasions (at baseline, after completing the course of disclosure and after four weeks following the last session of emotional disclosure), a questionnaire originally designed to assess the severity of depressive symptoms Although there have been several scales in the Arabic version to measure depression (e g , the Center for Epidemiological Studies measure for Depression, Zung-Self rating Depression Scale, Symptoms Checklist-90, the Hammilton Rating Scale for Depression), the Beck Depression Inventory second edition BDI-II was chosen There are several reasons for applying this measure specifically in the current study Firstly, the BDI-II is a self report measure that can be used as a screening measure and as an index of change in symptoms, as indicated in chapter 2 Secondly, it was designed according to the American Psychiatric Association, Fourth Edition DSM-IV definition of the symptoms of depression, the criteria used to diagnose depression where the study was conducted Thirdly, it is the

instrument that can be used with a clinical population, from which this study's sample was derived Finally, the BDI-II is the most widely used instrument in Arabic culture (as mentioned in chapter 2), hence, it reflects the established psychometric properties

The Beck Depression Inventory (BDI-II), developed by Aaron Beck, is a self-report questionnaire consisting of twenty-one multiple choice items study (see appendix B) Each item has four alternative statements rated on a four value scale ranging from 0 to 3, thus the total score can range from 0 to 63 It has been widely used to assess the severity of depressive symptoms (such as hopelessness and irritability, physical symptoms, and a lack of interest in sex)

The BDI-II is a revised version of the original BDI which was amended to match the diagnostic criteria for depressive symptomatology described in the Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition (DSM-IV) The research has shown that the test is internally consistent (r = 91) (Beck, Steer, Ball, & Ranieri, 1996), and has good stability reliability (r= 93) over a one week period (Beck *et al*, 1996) The validity of the BDI-II has also been adequately supported Convergent validity with the Reynolds adolescent depression scale (RADS) was 0 84 (Krefetz, Steer, Gulab, & Beck, 2002), the construct validity, the Beck Depression Inventory-II was more positively correlated with scores on the Depression subscale (r = 89) than it was with scores on the Anxiety subscale of the SCL-90-R (r = 71) (Steer, Ball, Ranieri, & Beck, 1997) Furthermore, it has been indicated that the BDI-II is valid for identifying the presence of depressive symptoms in psychiatric patients (Ambrosini *et al*, 1997) The BDI has become an established scale and is utilized as a touchstone to support the concurrent validity and construct

validity of other scales (see Steer, Beck, & Garrison, 1986)

In this study, the BDI-II Arabic version (,ابوحجلة & ابوطالب1998) was employed Consistent with the English version, the BDI-II Arabic version is internally consistent (coefficient alpha= 87), valid for distinguishing between psychiatric patients and non-psychiatric patients, and has re-test reliability (r= 88)

5.4.1.3 Cognitive Restructuring Questionnaire (post-test and delayed post-test)

Participants filled in a questionnaire developed to assess their cognitive restructuring Even though several researchers designed a questionnaire to measure changes in cognition, there were no measures that suited the aims of the study

The questionnaire consists of eight true-false items that reflect changes in cognition study (see appendix C) Data obtained in these eight items were totalized and an over-all score was scaled, so that, the more changes in cognition, the higher the scores would be

The questionnaire was given to several experts in psychology to review linguistically and to determine whether the items correspond to the construct The judges agreed that the items were clear and matched the construct This questionnaire was administered at post-test and delayed post-test, so it was given to participants in the control and experimental groups who completed the disclosure course and those who attended the delayed post-test

Psychometric Properties of the Cognitive Restructuring Questionnaire

Checking internal reliability

To determine the internal consistency of the Cognitive Restructuring Questionnaire Cronbach's alpha was calculated The internal consistency coefficient was 99 at post-test and 98 at delayed post-test This indicates that the questionnaire had high reliability Table 5-4 illustrates the level of alpha

Table 5-4

Cronbach's Alpha Reliability for Cognitive Restructuring Questionnaire

Cognitive Restructuring Questionnaire	N	α
Post-test	99	99
Delayed post-test	95	98

Checking validity

Convergent validity

In order to check the convergent validity of the Cognitive Restructuring

Questionnaire, all tape transcripts of the experimental and control oral conditions and the written essays from the experimental and control writing conditions were scored by an independent judge (who was blind to the group and to which material) for evidence of cognitive restructuring As a reliability check, all those material were rated independently by the researcher of this project The Person correlation was computed to determine the inter-rater reliability of these ratings The reliability coefficient was 98, and the significant level was at *P*< 001, so this reliability was considered to be high

The Convergent validity was determined by correlating the participants scores on the questionnaire at post-test with the mean of the judges' ratings The Person correlation coefficient was 52 at the significant level *P*< 001 These variables were judged to be moderately correlated

Construct validity

To check the construct validity of the questionnaire, it was hypothesized that participants assigned to the experimental conditions (disclosed orally alone condition, disclosed writing condition, disclosed orally to a challenging listener condition, disclosed orally to a supportive listener condition) would obtain higher scores in the Cognitive Restructuring Questionnaire than participants assigned to the control groups (talking to a supportive listener control condition, talking alone control condition, casual writing control condition, talking to a challenging listener control condition) As can be seen in Table 5-5, there were significant between-group (experimental vs control) differences in terms of cognitive restructuring This provides evidence to enhance the validity of the questionnaire as a construct

Table 5-5

Difference between Experimental Conditions and Control Conditions in Cognitive Restructuring

Conditions	N	Mean	SD	t	df	*P*-value
Experimental	52	5 8	2 13	4 512	97	001
Control	47	3 64	2 68			

5.4.1.4 The participants' attitudes questionnaire (post-test)

This questionnaire involved two items on (1) to what extent do you feel comfortable now? and (2) to what extent did you like engaging in this experiment? The response to these items was on 3-point scales ranging from none =1 to very much =3 This questionnaire was designed to establish the impression that the participants had about the study and their perception of it It was administered at post-test to all participants who completed the experiment from the control and experimental conditions The Cronbach`s alpha was calculated to determine the internal consistency of the participants' attitudes assessment, and it was 86 (see Table 5-6 for this reliability) This was considered to be satisfactory

Table 5-6

Alpha Reliability for Cognitive Restructuring Questionnaire

Measure	N	Time	α
Participants attitudes	99	Post-test	86

5.4.2 The measures that were completed by several judges included:

5.4.2.1 Judges' Ratings Questionnaire

There were two sets of ratings questionnaire that were completed by judges The first questionnaire was developed to assess the convergent validity of the Cognitive Restructuring Questionnaire The questionnaire focused on whether the participant showed evidence of cognitive restructuring (e g , different explanations mentioned, resolutions provided) It is composed of eleven true-false items study (see appendix E) completed by an expert and the researcher of this project after their evaluation of all of the written material and transcripts of the tapes These essays and the transcriptions belong to the participants assigned to the oral and written control and experimental conditions and who finished the course of disclosure Internal consistency ratings for the expert ratings were calculated utilizing Cronbach`s alpha and it was found to be 93 Table 5-7 shows □`s level and number of participants included in this rating

Table 5-7

Alpha Reliability for the Judge Ratings

Measure	N	Time	α
Judge rating (1)	99	Post-test	93

The second set of ratings was accomplished to assess whether the validation and challenge manipulations worked as intended study (see appendix F) A developed form was applied to evaluate all conversation with participants in the talking to a supportive listener control and experimental conditions and with participants in the talking to a challenging listener control and experimental conditions and who completed the course of disclosure These ratings were completed on a four point scale (1= none to 4 =all situations) for how validating (e g , the accepting participants' thoughts and feelings, showing agreement with the explanations provided by the participants) or challenging (e g , offering different interpretations of what was expressed by the participants, showing alternative perspective in viewing the events, exhibiting disagreement with the participants` thoughts) the confederate was

5.5 Recruitment

Due to the time constraints, the participants were recruited from two clinics Al-Rahmma Clinic and PeneeWaleed Clinic, where psychotherapy alone has been applied Permission was obtained from the directors of these

clinics and psychotherapists working in the clinics to allow the researcher to meet their patients, in order to solicit interested patients and to use some rooms from the clinics to conduct the experiment When patients came to their appointment, the researcher met them individually and they were briefly provided with a description of the study and asked for their consent to participate Interested participants were asked to provide their names, e-mail addresses or contact numbers The first session held was the first meeting, hence, the participants were orally reminded about the next meeting that would be the next day However, on the delayed post-test, the participants' email addresses or phone numbers were utilized to remind them two to three days prior to their scheduled session time

5.6 Procedure

When the patients arrived at their appointments held one day per week (on Saturday in Pennewalleed Clinic and on Tuesdays at Al-Rahmma Clinic), the patients were met individually and asked to participate in this study, including attending a series of sessions The participants were told that they would participate in a study to experiment a new cost-effective, and easy to apply approach In particular, they were told that we were investigating the impact of writing or talking about specific topics on your psychological health Our concern was how talking or writing about these topics made them feel and how it does so Further, the importance of participating was stressed due to the benefits that could be obtained from the results in the future Following Anastasi (1968) and Cronbach's (Cronbach, 1990) recommendation, the researcher tried hard to create a friendly atmosphere and close relationship

with the participants to gain their full cooperation in the study, encourage their frankness and increase their honesty and truthfulness in response to the study's instruments and to the experimental instructions, and to reduce the attrition rate All of the required patients agreed to participate and were enthusiastic about the project However, five patients were excluded, three because they were illiterate, one was taking hashish, and the other refused to have her voice recorded The data were collected in Al-Rahmma Clinic and PenneiWaleed Clinic The participants were not compensated for their participation, although they were exempted from paying the medical fees that patients usually pay for their treatment sessions

5.6.1 Data Collection Procedure

The blocked randomisation procedure was used to allocate participants to the experimental and control conditions Thus, during the first session and prior to the arrival of patients to their appointments with their psychotherapist, each condition was written on a slip of paper The slips of papers were shuffled and the patients were assigned according to their arrival (the first patient was assigned to the first slip selected) Interested participants were informed about the experiment, randomly assigned group and the time of their sessions They were then given a consent form to read and sign This form was written in simple language to be understood by all participants, irrespective of their education level study (see appendix G) According to the British Psychological Society (BPS) ethical principles for conducting research with human participants (BPS, 2000), the consent form involved (1) a simple description of the aims of the study, (2) an indication of the temporary

reactions that may happen due to experiencing an emotional situation, and (3) an indication of how to utilize the tape recorder during the sessions if they were assigned to oral groups The consent form also assured the participants that their information (whether by writing or speaking) would be treated in the strictest confidence and would be safeguarded It also confirmed them that their psychotherapy would be stopped for up to five weeks The consent form further stressed that the experiment would be under their psychotherapist's supervision Furthermore, the participants were informed that they could withdraw their participation at any time during the study, and they would be under no obligation and that their material (essays or tapes) would be destroyed All of the participants were given a hard copy of the consent form

On each of the initial days of the disclosure courses, the psychotherapists introduced the researcher and her assistants to the participants The assistants were two males (one of them has a PhD in psychology, the other has a master's degree in psychology) and three females (they have a master's degree in psychology) who were trained, and they helped in playing a supportive role The psychotherapists introduced the researcher and her assistants as a team of researchers who were investigating a new approach Further, the psychotherapists stressed, what was written on the consent form, that this experiment would be under their supervision Moreover, they assured the participants that they could resume their treatment after completing this experiment It should be noted that the researcher played a challenging role Over the seventeen weeks of the data collection, there was six days each week and up to five hours and half each day long periods of time and up to eight participants per week

Pennebeker (2000) recommended three to four days of disclosing Following this recommendation, and due to the constrains on time, the intervention was designed to take place over three consecutive sessions In the first session, the first meeting was held Prior to disclosing and after signing the informed consent, the participants completed individually the BDI-II baseline and a demographic questionnaire Once they had completed the instruments, the participants were taken to a separate room and given each day experimental instructions that were appropriate to their assigned group, orally to all conditions in addition to being written on a sheet to either of the writing group conditions Paper and pens were provided for the participants in the writing conditions All of the participants in oral experimental and control conditions were tape recorded

The participants then were left alone for twenty minutes if they were assigned to the writing conditions or talking alone conditions Twenty minutes later, the experimenter knocked on the door, switched the recorder off, and asked the participant to stop writing or talking, and hand in his/her essay The participants in the challenging listener conditions and the supportive listener conditions spoke to their confederates and, as mentioned above, their conversations were tape-recorded

5.6.2 Experimental Instructions

Smyth (1998) indicated that emotional disclosure might be more effective when a person discloses past and current stressful events Thus, the instructions that were given to the research participants were identical to those developed in previous studies with a modification Over the three days

of the experiment, the participants did not ask to disclose stressful events related to the same period of time Instead, on the first day of the experiment, the participants in the experimental conditions were instructed to disclose past stressful events On the second day, they were asked to disclose a current upsetting experience Lastly, the participants were instructed to disclose stressful events whether referring to the past or the current stressful experience, whether they had disclosed it in former sessions or not

In the first session, the participants assigned to the writing experimental condition received instructions telling them to write for twenty minutes about a past upsetting experience The participants were asked to write as much detail as possible about their thoughts and feelings related to their stressor. Particularly, they were given the following instructions

On this day, I'd like you to refer to your past when you were a child and to write about your deepest thoughts and feelings surrounding the things that made you feel angry or upset such as the relationship between your parents, your relationship with your family, your parents and your siblings, unfair behaviour from your parents, feelings of deprivation because you did not have as many toys, love or care and so on as other children, and any traumatic event happened in this phase

Try to write as much detail as possible

Similar to the participants in the writing experimental condition, the participants assigned to either the disclosed verbally alone condition, disclosed to a challenging listener condition or disclosed to a supportive listener condition were instructed to disclose for twenty minutes their stressor that had happened in the past Participants in the three oral conditions were

given verbally the same instructions as the disclosed writing condition except with the substitution of *write* for *speak* If the participants were in the talking alone condition, they were told that they were talking into a tape recorder and no audience would attend to listen to their disclosure If the participants were in the challenging listener condition, their words were tape-recorded also However, they were asked to disclose their stress related thoughts and feelings to the experimenter who was challenging these thoughts and feelings (e g , showing alternative explanations, reappraisal of the event) Even though the experimenter was friendly (e g , she maintained eye contact with the participant while s/he was talking, she seemed extremely concerned about what the participants talked about), she disagreed with some of the thoughts and feelings expressed by the participant, providing him/her alternative interpretation for what were expressed by the participant (e g , this, something the participant disclosed, may be because of, different explanation provided by the experimenter, I really disagree with you, an explanation was mentioned by the participant for what had happened, may be the reason for this was, different reason given by the experimenter) The experimenter was trying to develop new views of the stressful event wherever possible The experimenter also encouraged the participant to be flexible in viewing his/her stressor A tape recorder was used to record that conversation The purpose herein was to make the participant perceive that there was a different perspective, presented by the experimenter, from which to view the stressor

Participants in the supportive listener experimental condition disclosed to a supportive listener Several confederates were trained and they helped in undertaking the supportive role As a challenging listener, the confederate

listener maintained eye contact and was concerned about the participants' talk Contrary to the challenging listener, the supportive listener seemed totally supportive and showed his/her agreement by nodding sympathetically or by saying oh, yes Further, the experimenter agreed with the thoughts and feelings that were disclosed by the participant (e g , I know it was not easy really (something was mentioned by the participant), oh dear I think you passed difficult days (after talking about stressful events) I think anyone would have this feeling (feelings expressed by the participant), if I were you I think I would have thought in that way (something the participant thought)) All of this conversation was recorded by utilizing a tape recorder It was crucial that the experimenter did not try to provide the participant with alternative explanations or different reasons for what was disclosed by the participant Instead, he showed approval throughout the conversation whether verbally or by using body language

To control the impact of several factors that may confound the results, four control conditions were employed against each experimental group the casual writing condition, talking to a challenging listener control condition, talking to a supportive listener control condition, and the talking alone control condition These conditions also completed the self-report questionnaire and the BDI-II at the pre-test, immediate post-test, and the delayed post-test Similar to Pennebaker *et al* (1988), the control groups were asked to provide detailed descriptions of (1) what they had done since waking up to their coming to the clinic (the first session), (2) a recent social event that they attended (the second session), and (3) their plans for the remainder of the day (the third session) For instance, the following instructions were given to the

casual writing group to write about what they had done for the day prior to their coming to the clinic

Today, for twenty minutes I want you to describe in detail what you have done since you woke up this morning It is important that you describe things exactly as they occurred Do not mention your own emotions, feelings, or opinions Your description should be as objective as possible

The participants in the oral control conditions were given the same instructions as those in the writing control condition, except for the substitution of *write* for *speak*

At the end of session one, each participant (whether in the experimental conditions or in the control conditions) were reminded to return to the same clinic for two consecutive days to resume giving data In the second session, the participants assigned to the writing condition were asked to write for twenty minutes (in as much detail as possible) about their current upsetting experience In particular, the participants received the following instructions

Today, I'd like you to write for twenty minutes about your deepest thoughts and feelings about things that made you feel angry or upset that refer to your present such as your relation with your self and others, your feelings towards your self and the people living surrounding you, your problems that make you unhappy compared with your peers, any traumatic event you are experiencing

Try to write as much detail as possible

Participants in the oral experimental conditions were given the above instructions but asked to talk rather than write, about a current stressful event Similar to session one, participants in the alone experimental condition

disclosed into a tape recorder with no audience attending Participants assigned to the challenging listener experimental condition and to the supportive listener experimental conditions talked with confederates The participants assigned to the challenging listener experimental condition received different perspective to their thoughts and feelings from the listener However, the participants in the supportive listener experimental condition received validating feedback from their listener All conditions (including the control groups) were asked to return to his/her clinic next day to continue giving data

In the third session, the participants assigned to the experimental groups were told that they could disclose the same topic as disclosed previously or they could disclose a different topic (for twenty minutes in detail) For example, the following instructions were received by the participants in the writing condition

Today, I'd like you to write about your deepest thoughts and feelings things that make you feel miserable, whether they happened in your past or your present, whether you wrote about it already or not

The participants in the three oral conditions were given similar instructions that were received by the participants in the writing condition except for the substitution of *write* for *speak* The procedures from session one and two are repeated At the end of session three, participants in the all eight conditions were asked to fill in the immediate post-test Those included the BDI-II, the Cognitive Restructuring Questionnaire, and the Participants' attitudes questionnaire The first day of the experiment took up to 54 minutes, the following day took approximately twenty minutes of writing or speaking

time, and the third day took up to 55 minutes The same procedure was repeated in each course of disclosure

Many studies employing Pennebaker's standard paradigm have applied a delayed post-test, starting from four weeks (e g , Pennebaker *et al*, 1988, Pennebaker & Francis, 1996) to sixteen months (e g , Pennebaker *et al*, 1989) Given the high constraints on time, a 4-week period was used in this study Thus, at the end of the third day, the participants were reminded to return to the clinic four weeks later for the final meeting time to fill in the delayed post-test scales

Data collection for delayed post-test varied from participant to participant according to his/her third day of initial participation Since isolation was not a crucial element in this case, the data were collected in groups There were two sessions for the delayed post-test each week The first one commenced after four weeks from ending the first course of disclosure Thus, the data collection for the delayed post-test for several participants paralleled the last session of the disclosure and data collection for the immediate post-test for other participants To assess the possible long-term effects of the procedure, the data collection for the delayed post-test included filling in the BDI-II and Cognitive Restructuring Questionnaire by participants Filling in the delayed post-test took approximately twenty minutes

In sum up, the data collection procedure involved (1) filling in a pre-test held during the first session and prior to commencing the disclosure course, (2) writing or talking, and (3) filling in an immediate post-test that followed the third session of the disclosure course

5.7 Debriefing

As mentioned above, this study adhered to the British Psychological Society (BPS) ethical principles for conducting research with human participants (BPS, 2000) Hence, on the final day of the experiment, after the completion of the delayed post-test, each participant individually was given a debriefing sheet describing the main aims of the study and the experimental hypotheses study (see appendix H) During this time, the experimenter took the opportunity to thank the participant for his/her contribution Further, she asked her/him if the experiment caused any harmful effects that s/he needed to talk about or had any questions No harmful effects were mentioned and a few questions were posed

CHAPTER 6

RESULTS

This chapter deals with the findings of analyses conducted to investigate the intervention hypotheses Six sections are demonstrated below showing the results related to the investigation of (1) the accuracy of entering the data, (2) attrition and the adequacy of the randomization, (3) the confirmation of the experimental manipulation, (4) overview of statistical analysis assessing hypotheses 1and 2 that addressed the issue that whether the experimental manipulation affected the dependent variable positively, comparing to the control conditions, (5) hypothesis 3, whether there was a negative relationship between depressive symptoms and cognitive restructuring, and (6) the participants` attitudes towards the emotional disclosure Finally, a summary description of the study`s findings will also be presented

6.1 Checking the Accuracy of the Data Entering

Following Howitt and Cramer` s recommendation (Howitt & Cramer, 2008) that, with the large data set, it is fundamental to check the accuracy of data inputting by entering the data twice, the data was entered independently into two files Then the two sets of data were compared and the correction of the inputted data continued till

there were no differences between the two files For the data analysis, one of those files was used

6.2 *Attrition and Baseline Characteristics*

6.2.1 Attrition during the during data collection process

6.2.1.1 Attrition at post-test

As mentioned above, the first session of the disclosure course commenced at the first meeting with the participants Thus, during the first session of the data collection process, they were fifteen participants in each condition At the second session, two participants were lost from the talking to a supportive listener control condition, one from the experimental writing condition, three from the talking alone control condition, one from the disclosing orally to a challenging listener condition, and two from the disclosing orally to a supportive listener condition Table 6-1 shows the attrition by demographic characteristics and the BDI-II score at session two

Table 6-1.

Attrition by Demographic Characteristics and BDI-II Score at Session Two

Conditions	Participants did not complete	BDI score	Sex	Age	Education level	Marital status
talking to a supportive listener control condition	2	29	male	38	secondary school	single
		39	male	20	university level	married
disclosed writing condition	1	32	male	27	high school	married
talking alone control condition	3	43	female	39	high school	married
		44	Male	22	high school	single
		38	Male	26	secondary school	single
disclosed orally to a challenging listener condition	1	43	female	25	secondary school	single
disclosed orally to a supportive listener condition	2	29	male	41	high school	married
		32	Male	30	secondary school	single

On the third session of data collection, one participant was lost from the disclosing alone condition, two from the talking to a supportive listener control condition, one from the talking alone control condition, two from the casual writing control condition, one from the disclosing orally to a challenging listener condition, two from the disclosing orally to a supportive listener condition, and three from the talking to a challenging listener control condition Table 6-2 illustrates the attrition by demographic characteristics and BDI-II score at session three

Table 6-2

Illustrates attrition by demographic characteristics and BDI-II score at session three

Conditions	Participants did not complete	BDI score	Sex	Age	Education level	Marital status
disclosing alone condition	1	32	Male	19	high school	single
talking to a supportive listener control condition	2	37	Male	20	secondary school	single
		29	Male	43	high school	married
talking alone control condition	1	30	Female	27	secondary school	single
casual writing control condition	2	35	Male	20	secondary school	married
		25	Male	35	high school	married
disclosed orally to a challenging listener condition	1	22	Male	37	secondaryschool	married
disclosed orally to a supportive listener condition	2	30	Male	20	high school	married
		33	Male	28	secondary	single
Talking to a challenging listener control condition	3	36	Male	19	high school	married
		39	female	27	secondary school	single
		23	Male	22	secondary school	married

Therefore, at post-test, there were one participant lost from the disclosing alone condition, four from the talking to a supportive listener control condition, one from the disclosing via writing condition, four from the talking alone control condition, two from the casual writing control condition, two from the disclosing orally to a challenging listener condition, four from the disclosing orally to a supportive listener condition, and three from the talking to a challenging listener control condition Table 6-3 provides a summary for attrition by demographic characteristics and BDI-II score at post-test

Table 6-3

Attrition by Demographic Characteristics and BDI-II Score at Post-Test

Conditions	Participants did not complete	BDI score	Sex	Age	Education level	Marital status
disclosing alone condition	1	32	male	19	high school	single
talking to a supportive listener control condition	4	37	male	20	secondary school	single
		29	male	43	high school	married
		29	male	38	secondary school	single
		39	male	20	university level	married
disclosing via writing condition	1	32	male	27	high school	married
talking alone control condition	4	30	female	27	secondary school	single
		43	female	39	high school	married
		44	male	22	high school	single
		38	male	26	secondary school	single
casual writing control condition	2	35	male	20	secondary school	married
		25	male	35	high school	married
disclosed orally to a challenging listener condition	2	22	male	37	secondary school	married
		43	female	25	secondary school	single
disclosed orally to a supportive listener condition	4	30	male	20	high school	married
		33	male	28	secondary school	single
		29	male	41	high school	married
		32	male	30	secondary school	single
talking to a challenging listener control condition	3	36	male	19	high school	married
		39	female	27	seconday school	single
		23	male	22	secondary school	married

To determine whether there were significant between-group differences in the number of participants who did not attend the post-test according to gender, marital status, and educational level, the chi-square was computed The findings showed that there were no significant differences in the number of participants who did not attend session three according to those variables Further, a one-way ANOVA was applied to compare attrition in the eight conditions in depressive symptoms Similarly, there were no significant between-group differences in attrition regarding depressive symptoms This finding confirms that attrition in all conditions at post-test was equivalent, and this provides evidence of the homogeneity in the drop out numbers between groups

6.2.1.2 Attrition at delayed post-test

The number of participants who did not attend the delayed post-test were two from the disclosing alone condition, and two from the casual writing control condition Table 6-4 presents attrition by three demographic characteristics and BDI-II score

Table 6-4

Attrition by Demographic Characteristics and BDI-II Scores.

conditions	Participants did not complete	BDI score at pre-test	BDI score at pro-test	Sex	Age	Education level	Marital status
disclosing alone condition,	2	32	30	male	23	high school	married
		39	28	female	18	high school	married
casual writing control condition	2	48	52	male	23	secondary school	single
		23	52	male	30	high school	single

The chi-square was calculated to determine the between-group differences in attrition according to gender, education level, and marital status The findings indicated that there were no significant between-group differences in these variables A one-way ANOVA was run to see the between-group differences in attrition in terms of age and depressive symptoms ANOVA revealed no significant between-group differences in terms of attrition in age and depressive symptoms This finding provides evidences that attrition across conditions was consistent at delayed post-test All of the statistical analyses demonstrated below involve just those participants (n= 95) who completed the delayed post-test measures

6.2.2 Comparison of Conditions at Baseline

To determine the adequacy of the randomization, the eight conditions were compared on depressive symptoms and demographic What follows is a description of these findings

6.2.2.1 Depressive symptoms at baseline

To check between-group differences in depressive symptoms at baseline, a one- way ANOVA was calculated The ANOVA revealed that the eight groups did not differ significantly in terms of their BDI-II scores (F= 49, P= 84) Table 6-5 illustrates the means and standard deviation for the BDI-II at baseline

Table 6-5

The Means and Standard Deviation for The BDI-II at Baseline

conditions	N	Mean	SD
disclosing alone condition	12	33 17	5 92
talking to a supportive listener control condition	11	31 94	3 67
disclosed writing condition	14	33 41	5 79
talking alone control condition	11	32 57	6 15
casual writing control condition	11	30 34	5 99
disclosed orally to a challenging listener condition	13	32 87	5 46
disclosed orally to a supportive listener condition	11	30 67	6 70
talking to a challenging listener control condition	12	31 31	5 52
Total	95	32 10	5 60

6.2.2.2 The demographic differences at baseline

These demographic characteristics included age, education level, gender, and marital status To determine whether the participants in the eight conditions differed significantly in their age, at baseline, a one-way ANOVA was run The findings showed that there were no between-group differences in age (F= 42, P= 89) at this point Table 6-6 shows the means and standard deviation for participants' age and education level at baseline

Table 6-6

The Means and Standard Deviation for Participants' Age and Education Level at Baseline

Conditions	N	Age Mean (SD)
disclosing alone condition	12	27 00 (7 35)
talking to a supportive listener control condition	11	26 00 (8 54)
disclosed writing condition	14	25 93 (5 86)
talking alone control condition	11	28 27 (8 70)
casual writing control condition	11	29 55 (6 46)
disclosed orally to a challenging listener condition	13	28 54 (8 95)
disclosed orally to a supportive listener condition	11	29 64 (9 27)
talking to a challenging listener control condition	12	28 25 (7 77)
Total	95	27 84 (7 59)

Further, to check the between -group differences in gender, marital status and educational level, the chi-square was computed The findings indicated that there were no significant differences between the eight groups in terms of gender (χ^2 =1 20, *DF*=7, *P*= 99), marital status (χ^2= 75 ,*DF*=7 ,*P*=1) and educational level (χ^2 = 75, *DF*=7, *P*= 99) at baseline These findings confirm that randomization was successful

6.3 *Manipulation Check*

To determine whether the validation and challenge manipulations worked as anticipated, all conversations with the participants in the supportive listener conditions and challenging listener conditions (both the experimental and control groups) were transcribed verbatim Then, the transcripts were evaluated by a judge (who was independent of the study, and blind to the listener and to which condition he/she belonged) To check rater reliability, all of the transcripts for all three sessions were independently rated by another judge The Pearson correlation was used to calculate the interrater reliability for each of the three sessions These correlation coefficients for these ratings were the first session, 68, the second session, 82, the third session, 88, all significant at $P <$ 001 (see Table 6-7)

Table 6-7

Interrater Reliability for Each of The Three Sessions.

Sessions	DF	Correlation coefficient
First	45	68
Second	45	82
Third	45	88

Then, the average of these three correlations was calculated This average represented the interater reliability coefficient, that was, 79 This reliability was considered to be satisfactory

To ensure that the listeners in the supportive and challenging conditions

behaved as intended, a one-way ANOVA was conducted for each session As can be seen from Table 6-8, there was significant between-group differences on this variable for each session

Table 6-8

Summary of variance assessing differences in a listener s behaviour between talking to a supportive listener condition and talking to a challenging listener condition

Sessions	**Variance**	**Sum of squares**	**DF**	**Mean square**	**F**	***P*<**
First	Between group	24 57	3	8 19		
	Within group	12 41	43	29	28 37	001
	Total	36 98	46			
second	Between group	26 94	3	8 98		
	Within group	11 87	43	28	32 54	001
	Total	38 81	46			
third	Between group	37 89	3	12 63		
	Within group	8 92	43	21	60 87	001
	Total	46 81	46			

Since, it was anticipated that the means for challenging the listener conditions would differ from the means for the supportive listener conditions (as they were trained to play these roles), a t-test was calculated to determine which of the means differ significantly from the others (see Table 6-9)

Table 6-9

T-Test for the dıfferences in the feedback between listeners in the experimental and control conditions.

Sessıons	Comparatıve group	N	Mean	SD	T	df	P<
first	supportıve control	11	2 55	52	6 05	22	001
	vs experımental challenge	13	1 31	48			
first	supportıve control	11	2 55	52	-1 84	20	-
	vs supportıve experımental	11	3	63			
first	supportıve control	11	2 55	52	5 22	21	001
	vs challenge control	12	1 42	52			
first	experımental challenge	13	1 31	48	-7 45	22	001
	vs Supportıve experımental	11	3	63			
first	experımental challenge	13	1 31	48	- 52	23	n s *
	vs Challenge control	12	1 42	52			
first	supportıve experımental	11	3	63	6 61	21	001
	vs challenge control	12	1 42	52			
second	supportıve control	11	2 73	47	7 30	22	001
	vs experımental challenge	13	1 31	48			
second	supportıve control	11	2 73	47	-1 15	20	n s
	vs supportıve experımental	11	3 00	63			
second	supportıve control	11	2 73	47	6 37	21	001
	vs challenge control	12	1 42	52			

*n s means not sıgnıficant

(contınued on next page)

Table 6-9 (continuous)

T-Test for the differences in the feedback between listeners in the experimental and control conditions.

Sessions	Comparative group	N	Mean	SD	T	df	P<
second	experimental challenge	13	1 31	48	-7 45	22	00
	vs supportive experimental	11	3 00	63			1
second	experimental challenge	13	1 31	48	- 55	23	n s
	vs challenge control	12	1 42	52			*
second	supportive experimental	11	3 00	63	6 61	21	00
	vs challenge control	12	1 42	52			1
third	supportive control	11	2 73	47	8 09	22	00
	vs experimental challenge	13	1 23	44			1
third	supportive control	11	2 73	47	-2 74	20	01
	vs supportive experimental	11	3 27	47			
third	supportive control	11	2 73	47	7 70	21	00
	vs challenge control	12	1 25	45			1
third	experimental challenge	13	1 23	44	-	22	00
	vs supportive experimental	11	3 27	47	11 03		1
third	experimental challenge	13	1 23	44	- 11	23	n s
	vs Challenge control	12	1 25	45			
third	supportive experimental	11	3 27	47	10 55	21	00
	vs challenge control	12	1 25	45			1

*n s means not significant

When a Bonferroni adjustment was made for the number of comparisons at session 1, there was a significant difference (t=6 05,DF=22, two-tailed *P*< 01) between the means of the supportive control condition (M=2 55, SD= 52) and the means of the challenging experimental condition (M1 31=, SD= 48) Further, there was a significant difference (t=5 22, DF=21, two-tailed *P*< 01) between the means of the supportive control condition and the means of the challenging control condition (M1 42=, SD= 52) Also, the difference between the means of the challenging experimental condition and the means of the supportive experimental condition (M3 00=, SD= 63) was significant (t=-7 45,DF=22, two-tailed *P*< 01). The difference between the means of the challenging control condition and the means of the supportive experimental condition was significant (t=6 61,DF=21, two-tailed *P*< 01) as well

Similarly, at session 2 and after a Bonferroni correction was made for the number of comparisons, it was found that (1) there was a significant difference (t=7 30,DF=22, two-tailed *P*< 01) between the means of the supportive control condition (M=2 73, SD= 47) and the means of the challenging experimental condition (M1 31=, SD= 48), (2) there was a significant difference (t=6 37, DF=21, two-tailed *P*< 01) between the means of the supportive control condition and the means of the challenging control condition (M1 42=, SD= 52),(3) the difference between the means of the challenging experimental condition and the means of the supportive experimental condition (M3 00=, SD= 63) was significant (t=-7 45,DF=22, two-tailed *P*< 01), and (4) the difference between the means of the challenging control condition and the means of the supportive experimental condition was significant (t=6 61,DF=21, two-tailed *P*< 01)

For session 3 and after a Bonferroni adjustment was made for the number of

comparisons, it was found that (1) there was a significant difference (t=8 09,DF=22, two-tailed $P<$ 01) between the means of the supportive control condition (M=2 73, SD= 47) and the means of the challenging experimental condition (M=1 23=, SD= 44), (2) there was a significant difference (t=7 70, DF=21, two-tailed $P<$ 01) between the means of the supportive control condition and the means of the challenging control condition (M=1 25=, SD= 45),(3) the difference between the means of the challenging experimental condition and the means of the supportive experimental condition (M=3 27=, SD= 47) was significant (t=-11 03,DF=22, two-tailed $P<$ 01), (4) the difference between the means of the challenging control condition and the means of the supportive experimental condition was significant (t=10 55,DF=21, two-tailed $P<$ 01) These outcomes from the first, second and third sessions confirm that the manipulation was successful

6.4 Overview of the Statistical Analysis

To determine whether the study sample would be treated as a whole or according to gender when a statistical analysis was conducted, it was necessary to see if the impact of experimental manipulations on depressive symptoms would differ by gender over time To calculate this impact, the differences for gender by condition at pre-intervention were checked initially A statistical analysis of the effect of gender by condition at pre-intervention detected no significant difference (F=,1 25, P= 29) Thus, a statistical analysis was conducted to determine the effect of the interaction for gender and condition at post-test and delayed post-test separately

A statistical analysis of the effect for the time by condition by gender interaction was conducted firstly at post-test The dependent variable was depressive symptoms as assessed by the BDI at post-test, and the fixed factors were gender and

condition (disclosing orally alone, talking to a supportive listener control condition, disclosing via writing condition, talking alone control condition, casual writing condition, disclosing orally to a challenging listener condition, disclosing orally to a supportive listener, and talking to a challenging listener control condition) The results indicated that the interaction effect for gender and condition immediately after the intervention was not significant (F=1 32, P= 25) Secondly, the effect of the interaction between gender and condition at delayed pot-test was applied The dependent variable was depressive symptoms as indicated by the BDI At delayed post-test, the fixed factors were gender and condition Similarly, the results revealed that there was no significant interaction effect for gender and condition at delayed post-test (F=1 51, P= 18) Since there was no significant interaction for the time by condition by gender, a statistical analysis was run for the sample as a whole

6.4.1 Effects of Disclosing Stressful Events on Depressive symptoms

Pre-, immediate and delayed post measures of depressive symptoms (BDI) were investigated to test hypothesis 1 that compared the control groups and the participants in the four disclosure conditions to see if either group would show less longer term depressive symptoms as measured by the Beck Depression Inventory second edition (BDI-II) Information about the BDI outcome for each condition, and each time period is summarized in Table 6-10 and presented graphically in Figure 6 1

Table 6-10

Means and Standard Deviatıons for BDI for the Experımental and Control Conditions at Pre-Test, Post-Test, and Delayed Post-Test

Conditions	N	Pre-test M (SD)	Post-test M (SD)	Delayed post-test M (SD)
Experimental conditions	50	32 61 (5 86)	24 90 (11 89)	30 47 (10 42)
Control conditions	45	31 54 (5 30)	30 66 (10 24)	30 47 (10 42)
Total	95	32 10 (5 60)	27 63 (11 45)	33 48 (10 51)

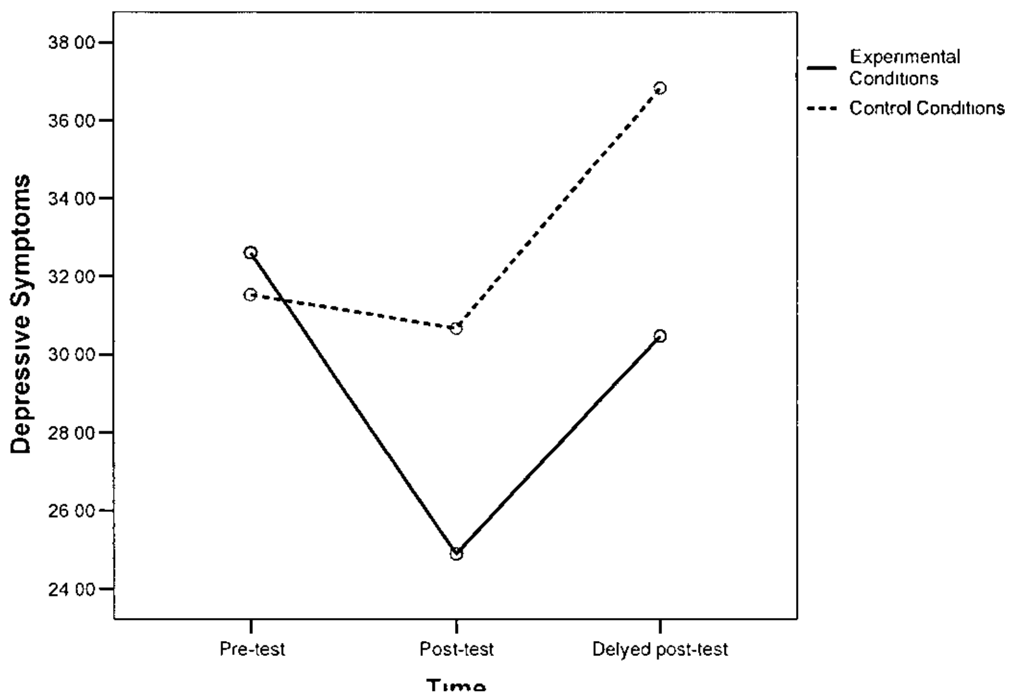


Figure 6.1 Experimental and Control Condıtions on BDI at Pre-test, Post-test, and Delayed Post-Test.

An inspection of Figure 2 suggests that the experimental conditions seemed to produce a decline in depressive symptoms (decrease in BDI scores) from pre-intervention to immediately after the intervention, and then increase at four weeks after the intervention, while the control conditions demonstrated no improvement from pre- to post-intervention, but they showed an increase in depressive symptoms at four weeks after the intervention

To evaluate the impact of the experimental manipulation on the depressive symptoms, A 2 (condition) X3 (time) mixed ANOVA was calculated The between - groups factor was treatment (experimental groups, or control groups) and time was the repeated measure factor (pre-test, post-test, and delayed post-test) The dependent variable for this hypothesis was depressive symptoms as measured by BDI-II The ANOVA revealed that, while there was no significant main effect for time (F= 2 59, P > 05), a significant time X treatment interaction (F= 14 43, P< 001) was detected Table 6-11 illustrates the analysis of variance

Table 6-11

Summary of Variance for the impact of the experimental manipulation on the depressive symptoms

Source of variance	Sums of squares	Degree of freedom	Mean square	F-ratio
Between-subjects factor	964 48	1	964 48	5 64*
Between-subjects error	15896 58	93	170 93	
Within-subjects factor	117 60	1	117 60	2 59
Within-subjects error	4216 61	93	45 34	
Interaction	654 05	1	654 05	14 43***

*Significant at 05 level, *** Significant at 001 level

To see whether the experimental conditions and the control conditions differed significantly at pre-test, post-test, and delayed post-test, an unrelated t-test for the three periods was calculated Table 6-12 provides a summary of these findings

Table 6-12

Unrelated T-Test for the Differences between Experimental and Control Conditions on BDI at Pre-Test, Post-Test, and Delayed Post-Test

Time	Conditions	N	Mean	SD	t	DF
pre-test	experimental condition	50	32 61	5 86	93	93
	vs control condition	45	31 54	5 30		
Post-test	experimental condition	50	24 90	11 89	-2 52**	93
	vs control condition	45	30 66	10 24		
Delayed post-test	experimental condition	50	30 47	10 42	-3 07**	93
	vs control condition	45	36 83	9 67		

** Significant at 01 level

As can be seen from Table 6-12, while the two groups did not differ significantly at pre-test in terms of the severity of their depressive symptoms (t= 93, DF=93, two-tailed *P*> 05), the participants in the experimental conditions had significantly lower (t=-2 52, DF=93, two-tailed *P*= 01) depressive symptoms (decrease in BDI), (M= 24 90, SD= 11 89) at post-test than the participants in the control conditions (M= 30 66, SD=10 24) Further, at delayed post-test, the participants in the experimental conditions (M=30 47,SD=10 42) had significantly less (t=-3 07,DF=93,two-tailed *P*< 01) severity of depressive symptoms than those in the control conditions (M=36 83,SD=9 67)

To determine whether these changes in depressive symptoms between the baseline and post-test scores, baseline and delayed post-test scores, and post-test and delayed post-test scores were statistically significant for each condition, a two-tailed related t-test was applied to the experimental and control conditions separately Table 6-13 summarizes these results

Table 6-13

Related t-test for the Dıfferences in BDI between Pre-Test and Post-Test, Pre-Test and Delayed Post-Test, and Post-Test and Delayed Post-Test for Experımental and Control Condıtıons

Conditıons	Comparative time	N	Mean	SD	t	DF
experımental condıtıon	pre-test vs Post-test	50 50	32 61 24 90	5 86 11 89	5 21***	49
experımental condıtıon	pre-test vs delayed Post-test	50 50	32 61 30 47	5 86 10 42	1 62	49
experımental condıtıon	Post-test vs delayed Post-test	50 50	24 90 30 47	11 89 10 42	-4 38***	49
control condıtıon	pre-test vs Post-test	45 45	31 54 30 66	5 30 10 24	62	44
control condıtıon	pre-test vs delayed Post-test	45 45	31 54 36 83	5 30 9 67	-3 66***	44
control condıtıon	Post-test vs delayed Post-test	45 45	30 66 36 83	10 24 9 67	-5 71***	44

** *Sıgnıficant at 001 level

As can be seen from Table 5-13, the improvement from pre-intervention (M=32 61, SD=5 86) to post intervention (M=24 90, SD=11 89) was significant for the experimental conditions (t=5 21, DF=49, two-tailed P< 001), but not for the control conditions (t= 62, DF= 44, two-tailed *P*> 05) While the reduction in the severity of depressive symptoms from pre-intervention to four weeks later (M=30 47, SD=10 42) was not significant for participants in the experimental conditions (t=1 62,DF=49, two-tailed *P*> 05), the increase in depressive symptoms from pre-intervention (M=31 54, SD=5 30) and after four weeks (M=36 83, SD=9 67) was significant for the participants in the control condition (t=-3 66, DF=44,two-tailed *P*< 01) The increase in depressive symptoms that occurred from immediately after the intervention and after four weeks was significant for both participants in the experimental conditions (t=-4 38,DF=49, two-tailed *P*< 001) and those in the control conditions (t=5 71, DF=44, two-tailed *P*< 001) Thus, the experimental conditions showed a decrease in the depressive symptoms at post-intervention (but only on this point), whereas the control conditions showed an increase at post-intervention and four weeks later

The results from the depressive symptoms factor confirmed partly hypothesis 1 The experimental condition gained improvement (decline in BDI) at post-test versus no effect in the control conditions at this point However, after four weeks following the intervention, the participants in both conditions demonstrated an increase in their depressive symptoms, but this increase was higher in the control conditions than in the experimental ones While the reduction in the severity of the depressive symptoms shown by the participants in the experimental conditions from pre-intervention to four weeks later was not significant, the increase exhibited by the participants in control conditions over this period was significant

6.4.2 Between-Groups Differences in terms of the Effects of Emotional Disclosure on Depressive Symptoms

The next issue addressed was whether the participants, in disclosing orally to a challenging listener condition, would show the greatest long term reduction in depressive symptoms as measured by BDI-II (hypothesis 2) The outcomes of depressive symptoms are presented graphically in Figure 5 2 and the means and standard deviations for each condition at pre-test, post-test and delayed post-test are shown in Table 5-14

Table 6-14

Means and Standard Deviations on BDI for Each Condition at Pre-Test, Post-Test and Delayed Post-Test

Conditions	N	Baseline Mean(SD)	Post-test Mean(SD)	Delayed post-test Mean(SD)
disclosed orally alone condition	12	33 17 (5 9)	26 92 (16 56)	36 92 (11 82)
talking to a supportive listener control condition	11	31 94 (3 67)	25 27 (10 77)	35 72 (11 33)
disclosed writing condition	14	33 41 (5 79)	22 49 (8 50)	29 10 (8 62)
talking alone control condition	11	32 57 (6 15)	38 55 (4 68)	43 18 (4 05)
casual writing control condition	11	30 34 (5 99)	32 62 (8 55)	39 18 (7 90)
disclosed orally to a challenging listener condition	13	32 87 (5 46)	30 31 (7 55)	31 92 (7 83)
disclosed orally to a supportive listener condition	11	30 67 (6 70)	19 36 (11 99)	23 45 (9 93)
talking to a challenging listener control condition	12	31 31 (5 52)	26 58 (10 71)	29 85 (9 25)
Total	95	32 10 (5 60)	27 63 (11 45)	33 48 (10 51)

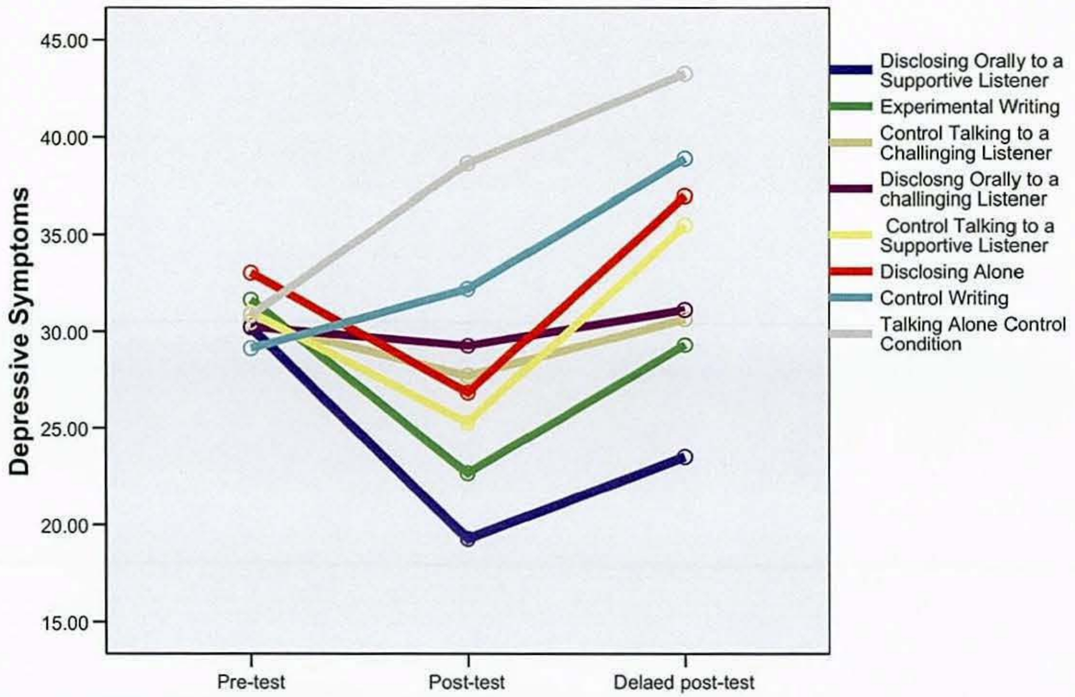


Figure 6.2: BDI for Each Condition at Pre-Test, Post-Test and Delayed Post-Test

An inspection of this figure indicates that there were overall pattern of change for the eight conditions from pre-test to post-test, and delayed post-test. For the disclosing orally alone condition, there was an improvement (reduction in BDI scores) from pre-intervention to immediately after the intervention. Yet, after four weeks from completing the disclosure course, the participants in this condition showed a slight increase in their depressive symptoms (increase in BDI scores). Similarly, the participants in talking to a supportive listener control condition seemed to show a decline in their depressive symptoms from pre-intervention to post-

intervention, but they produced an increase after four weeks following the intervention Contrary to the disclosing orally alone condition and talking to a supportive listener control condition, the experimental writing condition appeared to exhibit an improvement from pre-intervention to post-intervention and four weeks later The higher improvement (lower scores on the BDI) occurred at post-intervention In contrast, the control talking alone condition demonstrated a gradual increase from pre-intervention to immediately after the intervention and four weeks later The higher score was at four weeks after the intervention Alike, the control writing condition illustrated an increase in depressive symptoms over this period, and the higher score was also after the four weeks following the intervention For the disclosing orally to a challenging listener condition, there was a slight improvement from pre-intervention to post-intervention, and four weeks later The higher improvement was at post-intervention The highest improvement (from pre-intervention to post intervention and four weeks after the intervention) seemed to be produced by participants in the disclosing orally to a supportive listener condition The higher improvement occurred immediately after the intervention Similarly, the talking to a challenging listener control condition showed an improvement from pre- to post-intervention and four weeks following the intervention

The statistical analysis of the impact of the emotional disclosure on the dependent variable was analyzed by a mixed model ANOVA A 8 (condition) X3 (time) mixed ANOVA was calculated to evaluate the impact of the experimental manipulation on the depressive symptoms The between -groups factor was the condition (disclosing orally alone, talking to a supportive listener control condition, disclosing via writing condition, talking alone control condition, casual writing condition, disclosing orally to a challenging listener condition, disclosing orally to a

supportive listener, and talking to a challenging listener control condition) and time was the repeated measure factor (pre-test, post-test, and delayed post-test) The dependent variable for this hypothesis was depressive symptoms as measured by BDI-II The results of examining hypothesis 1 are presented in Table 6-15

Table 6-15

Summary of a Mixed ANOVA for The Between- Groups Differences in BDI

Source of variance	Sums of squares	Degree of freedom	Mean square	F-ratio
Between-subjects factor	3856 72	7	550 96	3 69**
Between-subjects error	13004 34	87	149 48	
Within-subjects factor	125 61	1	3 30	07
Within-subjects error	3314 28	87	38 10	
Interaction	1556 38	7	222 34	5 84***

** Significant at 01 level, *** Significant at 001 level

As can be seen from Table 6-15, although there was a marginally main effect for time (F= 3 30, P= 07), a significant time X treatment interaction (F= 5 84, P< 001) emerged Further analyses were needed to determine which means for each group differ significantly Analyses of variance (ANOVA) for repeated measures on each the separate conditions were run separately Table 6-16 provides a summary of an analysis of variance

Table 6-16

Summary of Variance for Each Condition on BDI

conditions	Source of variation	Sum of squares	DF	Mean square	F-ratio
disclosing alone condition	Time	612 50	2	306 25	3 57*
		1888 83	22	85 86	
talking to a supportive listener control condition	Time	616 42	2	308 211	4 93*
		1251 45	20	62 57	
disclosed writing condition	Time	846 40	2	423 20	11 05***
		996 02	26	38 31	
talking alone control condition	Time	622 14	2	311 07	15 69***
		396 523	20	19 83	
casual writing control condition	Time	463 50	2	231 75	9 02*
		513 62	20	25 68	
disclosed orally to a challenging listener condition	Time	25 56	2	12 78	1 08
		260 90	22	11 86	
disclosed orally to a supportive listener condition	Time	440 41	2	220 21	9 39**
		375 16	16	23 45	
talking to a challenging listener control condition	Time	140 50	2	70 25	3 45*
		448 56	22	20 39	

* Significant at 05 level, ** Significant at 01 level, *** Significant at 001 level

As can be seen from Table 6-16, a related analysis of variance showed that, for the disclosing orally alone condition, there was a significant effect for the pre-intervention, post-intervention and four weeks later (F=3 57,P= 05) The pre-

intervention mean was 33 17 (SD=5 49), the post-intervention mean was 26 92(SD=15 25), and the after four weeks mean was 36 92(SD=11 82) No significant change was found throughout this period of time with a related t-test when a Bonferroni correction was made for the number of comparisons

Similarly, a related analysis of variance for the talking to a supportive listener control condition revealed a significant impact from the pre-, post-intervention and four weeks later (*F*=4 93, *P*< 05) The means for this period of time were 31 94(SD=4 01), 25 27(SD=10 77), and 35 73(SD=11 33) for the pre-intervention, post-intervention and four weeks later respectively To determine whether this change was significant, a related t-test was calculated for the means of pre- and post-intervention, pre- and delayed post-intervention, and post- and delayed post-intervention There was no significant effect either from the pre-intervention to post-intervention nor from the pre-intervention and after four weeks following the intervention Yet, the increase in depressive symptoms (increase in BDI scores) from post-intervention to four weeks later was significant (t=,-3 55, DF,10, two-tailed *P* < 05) when the Bonferroni adjustment was made for the number of comparisons

For the disclosing via writing condition, a related analysis of variance detected a significant effect for the pre-intervention, post-intervention and four weeks after the intervention (*F*=11 05,*P*< 001) A related t-test comparing each period with the others (with conducting a Bonferroni correction) indicated that there was a significant improvement (t=4 66, DF=13, tow-tailed *P*< 01) that occurred from a pre-intervention (M=33 41, SD=5 79) to immediately after the intervention (M=22 49,SD=8 50), but no significant change was detected from the pre-intervention to four weeks later (M=29 10, SD=8 62) However, there was a significant increase in the severity of depressive symptoms (t=-2 94, DF=13, two-tailed *P*< 05) from post-intervention and

after four weeks

Applying a repeated measure of variance for the talking alone control condition revealed a significant effect for the pre-, post-intervention and four weeks later (F=15 69,P< 001) Similarly, a related t-test with Bonferroni adjustment was run comparing the pre-, post-intervention and four weeks after the intervention one with the others The results indicated that there was a significant increase in the severity of depressive symptoms (t=-3 64,DF=10, two-tailed P< 05) from pre-intervention (M=32 57,SD=6 15) to immediately after the intervention (M=38 55, SD=4 68), and from pre-intervention (t=-4 96, DF=10,two-tailed P< 01) to four weeks following the intervention (M=43 18, SD=4 05), but no significant change occurred from immediately after the intervention and four weeks later

For the writing control condition a repeated measure of variance revealed a significant influence for the pre-, post-intervention and four weeks following the intervention (F=9 02,P< 01) When a related t-test when a Bonferroni correction was made for the number of comparisons, no significant change was found from pre-intervention to post-intervention, but there was a significant increase in the severity of depressive symptoms (t=-3 90, DF=10, two-tailed P< 01) from pre- intervention (M=30 34,SD=5 99) to four weeks later (M=39 18, SD=7 90), and from post-intervention (M= 32 62, SD=8 55) to four weeks after the intervention (t=-3 11, DF=10, two-tailed P< 05)

Contrary to previous conditions, a related analysis of variance for the disclosing orally to a challenging listener condition failed to detect a significant intervention effect for the pre-intervention, post-intervention and four weeks later The pre-intervention mean was 33 27 (SD=6 43), the post-intervention mean was 31 83(SD=7 55), and the after four weeks mean was 33 83(SD=3 88) Similarly, this

analysis of variance failed to reveal a significant intervention effect for the pre-, post-intervention and four weeks after the intervention for the talking to a challenging listener control condition For this condition, the pre-intervention mean was 31 31(SD=6 43), the post-intervention mean was 26 58(SD=7 55), and the four weeks following the intervention mean was 29 85(SD=3 88)

Finally, it can be seen from Table 5-16 that the participants in the disclosing orally to a supportive listener condition produced a significant intervention effect for pre-, post-intervention and four weeks following the intervention (F=9 39, *P*< 05) To see which change was significant, a related t-test (with Bonferroni adjustment) was calculated for each mean with the others The results from this analysis indicated that there was a significant improvement (reduction in BDI) (t=3 20, DF=8, two-tailed *P*< 01) from the pre-intervention (M=31 49, SD=7 06) to post-intervention (M=21 67, SD=12 11), and from pre-intervention (t=3 37,DF=10,two-tailed *P*< 05) to four weeks following the intervention (M=23 45,SD=9 93) Yet, no significant change occurred from post-intervention to four weeks later

Overall, for hypothesis 1, that compared with the control groups, the participants in the four disclosure conditions would show fewer long term depressive symptoms as measured by the Beck Depression Inventory (BDI), when compared with the control groups, the participants in the four disclosure conditions would show fewer longer term depressive symptoms as measured by the Beck Depression Inventory second edition (BDI-II) was partially supported While the effect of time was marginally significant, time by group interaction wielded a statistically significant effect on the depressive symptoms Excluding participants in the disclosing orally to a challenging listener condition and the talking to a challenging listener condition that failed to have a time effect, all of the participants in the control and experimental

conditions yielded a significant time effect Yet, for the experimental conditions, the disclosing alone condition did not show any significant difference between the changes that occurred over time, while the participants in the disclosing via writing condition and those in the disclosing to a supportive listener condition yielded a significant improvement in their depressive symptoms at the post-intervention point, yet, then both conditions produced a significant increase in the severity of depressive symptoms at four weeks later However, the level of the severity of depressive symptoms for participants in the disclosing to a supportive listener condition at the four weeks later point were still lower than that at pre-intervention point For the control conditions, the change produced by the participants in these conditions over time was not significant or even, surprisingly, there was an increase in the severity of the depressive symptoms Only the talking alone condition illustrated a significant increase at post-intervention While the talking to a supportive listener control condition and the casual writing condition showed an increase in the severity of their depressive symptoms from post-intervention to four weeks later Both the talking alone condition and the casual writing condition exhibited an increase in the severity of depressive symptoms from pre-intervention to four weeks after the intervention

6.4.3 Effects of Disclosing Stressful Events on Cognitive Restructuring

The next issue investigated was whether there was reverse relationship between participants scores on the BDI and their scores on the Cognitive Restructuring Questionnaire (Hypothesis 3) Since there have been several studies factor-analyzed the BDI-II (e g ,Beck, Steer, & Brown, 1996, Steer, Ball, Ranieri, & Beck, 1999) found that the BDI-II is composed of two dimensions reflecting non-cognitive factor (somatic and affective symptoms) and cognitive factor (psychological

symptoms) Thus, to ascertain that the relationship between these two variables is not contaminated by the cognitive elements included in the BDI-II, a principal component factor analysis was computed to identify non-cognitive items within the BDI-II for the study sample Table 6-17 shows the factor structure of the BDI for the study sample

Table 6-17 The factor structure of the BDI for the study sample

Symptoms	Factor 1 (Affective-Somatic)	Factor 2 (Cognitive-Somatic)	Factor 3 (Affective-Somatic)	Factor 4 (Affective)	Factor 5 (Somatic)	Factor 6 (Cognitive)
Sadness	*63*	19	06	- 12	- 35	20
Pessimism	*75*	20	23	15	- 04	- 09
Past Failure	*56*	16	*35*	27	8	- 07
Loss of Pleasure	19	20	*59*	28	*41*	22
Guilty Feelings	16	01	*52*	17	- 09	*54*
Punishment Feelings	14	09	20	*53*	- 001	*45*
Self-Dislike	08	10	09	07	05	*83*
Self-Criticalness	- 01	*54*	- 07	20	- 02	*61*
Suicide Thoughts or Wishes	*48*	28	16	04	*48*	25
Crying	23	*51*	02	- 03	*37*	24
Agitation	004	14	10	*69*	09	03
Lose of Interest	11	04	07	*73*	18	03
Indecisiveness	21	10	15	*53*	01	*36*
Worthlessness	*50*	34	- 09	*35*	- 08	18
Loss of Energy	*65*	- 17	10	13	26	*36*
Change in Sleeping Pattern	09	22	- 05	12	*82*	- 07
Irritability	09	13	28	17	*70*	- 03
Change in Appetite	20	*68*	31	13	30	- 001
Concentration Difficulty	17	*75*	19	17	17	10
Tiredness or Fatigue	04	*40*	*67*	23	16	05
Loss of Interest in Sex	21	17	*75*	03	*66*	08

As can be seen from the Table the factor analysis of the data yielded 6 factors The six salient (0 35) coefficients for the first factor are Sadness, Pessimism, Past Failure, Suicidal Thoughts or Wishes, Worthlessness, and Loss of Energy Since Pessimism, and Loss of Energy had the highest loading on this factor, this factor was considered to reflect the Affective-Somatic dimension The six salient (0 35) coefficients for the second factor are Self-Criticalness, Crying, Change in Appetite, Worthlessness, Concentration Difficulty, and Tiredness or Fatigue Concentration Difficulty and Change in Appetite had the highest loading on this factor Therefore, this factor was regarded to present Cognitive-Somatic dimension The fifth salient (0 35) coefficients for the third factor are Past Failure, Loss of Pleasure, Guilty Feelings, Tiredness or Fatigue, and Loss of Interest in Sex Since Loss of Interest in Sex and Tiredness or Fatigue had the highest loading on this factor, this factor was interpreted as reflecting the Affective-Somatic dimension The fifth salient (0 35) coefficients for the forth factor are Punishment Feelings, Agitation, Loss of Interest, Indecisiveness,and Worthlessness Loss of Interest had the highest loading on this factor Thus, this factor was interpreted as reflecting the Affective dimension The sixth salient (0 35) coefficients for the fifth factor are Sadness, Loss of Pleasure, Suicidal Thoughts or Wishes, Crying, Change in Sleeping Pattern, and Irritability Since Change in Sleeping Pattern had the highest loading on this factor, this factor was considered to reflect the Somatic dimension The five salient (0 35) coefficients for the sixth factor are Guilty Feelings, Punishment Feelings, Self-Dislike, Self-Criticalness, Indecisiveness, and Loss of Energy Self-Dislike and Self-Criticalness had the highest loading on this factor Therefore, this factor was interpreted as reflecting the Cognitive dimension

To investigate the third hypothesis that cognitive change would correlate

negatively with depressive symptoms, factors that have been found to make up the BDI were correlated with cognitive change to ensure that the correlation was not affected by existing cognitive symptoms made up in the BDI As anticipated, when a Person's correlation was computed for each factor made up in the BDI to all conditions at delayed post-test, a negative significant relationship between factors making up the BDI and cognitive restructuring including Cognitive factor (correlation coefficient for the firs factor =-0 30, df=95, p=0 003, correlation coefficient for the second factor =-0 24, df=94, p=0 02, correlation coefficient for the third factor =-0 27, df=95, p=0 008, correlation coefficient for the forth factor =-0 27, df=93, p=0 008, correlation coefficient for the fifth factor =-0 27, df=94, p=0 008, correlation coefficient for the sixth factor =-0 30, df=92, p=0 004) Thus, participants who showed the greatest decline in their depressive symptoms were those who obtained the greatest cognitive restructuring Whereas, participants who were the most severe in their depressive symptoms tended to be the lowest in cognitive restructuring

Furthermore, factors making up in the BDI according to Beck (1996) factor analysis also were correlated to cognitive change Similarly, it has been found that Cognitive factor and Somatic-Affective factor correlated negatively with cognitive change (r=- 36, P< 001, df=93 and r=- 28, P= 006, df=93 respectively)

Moreover, to determine whether cognitive change at post-test and follow-up was related to change in depression at post-test and follow-up, hierarchical multiple regression was calculated Change in depression was measured by entering previous depression in the first step, cognitive change in the second step and using consequent depression as the criterion

When pre-test depression was controlled, Cognitive change at post-test was found to explain a significant increment of 35 per cent of the variance in post-test

depression ($F_{1, 96}$ = 24 77, p< 001) When pre-test depression was controlled, Cognitive change at delayed post-test was found to account for a significant increment of 23 per cent of the variance in delayed post-test depression ($F_{1, 92}$ = 14 40, p < 001) Cognitive change at follow-up did not explain a significant increment of variance in delayed post-test depression when post-test depression was controlled

6.5 Checking the participants` attitudes towards the study.

To determine whether the participants had a favourable impression about engaging in the experiment, the participants completed the participants` attitude questionnaire after they finished the course of disclosure The mean ratings were the experimental talking alone condition 4 57 (SD= 76), the experimental writing condition 4 21 (SD= 43), the experimental challenging listener condition 5 (SD=1), and the experimental supportive listener condition 4 81 (SD= 87) These findings indicate that all conditions had a good impression of their involvement in the emotional disclosure task To see if there was any significant difference between these groups with regard to their attitudes , a one way ANOVA was computed The findings showed that there was no significant (F=2 52, P= 07) between- experimental group difference in the participants' attitudes towards the emotional disclosure

6.6 Summary of Assessing the Study Hypotheses

As predicted, over time, the control conditions did not show any improvement in their depressive symptoms and even the majority of them exhibited an increase in their depressive symptoms (as indicated by the increase in BDI scores) at four

weeks following the interventions (excluding talking to a challenging listener condition that had no effect on depressive symptoms), while the majority of the experimental conditions demonstrated improvement in their depressive symptoms (as indicated by the decline in BDI scores) immediately after the interventions Unexpectedly, however, the outcomes show that the participants in the supportive listener condition illustrated the strongest improvement in their depressive symptoms Particularly, those in the disclosing orally to a supportive listener condition maintained their improvement during the four weeks after the intervention Participants in the disclosing via writing condition also gained some benefits, but they were not as great as those shown by the participants in the supportive listener condition Specifically, those in the disclosing via writing condition showed a reduction in their depressive symptoms immediately after the intervention but their depressive symptoms increased from immediately after the intervention to four weeks later The other unexpected outcome is the null effect of disclosing to a challenging listener condition Another unexpected finding was the results from disclosing orally without attending an audience, that had null effect on depressive symptoms As anticipated, there was a statistically significant negative correlation between depressive symptoms and cognitive restructuring This finding indicates that participants who experienced the greatest reduction in their depressive symptoms tend to be those who achieved the best cognitive restructuring, while participants with the most severe depressive symptoms were also those who obtained the least cognitive restructuring

CHAPTER 7

TRANSCRIPTS ANALYSIS

The aim of this analysis is exploratory The goal herein is to enrich our understanding of the underlying mechanism accounting for the beneficial effects of the emotional disclosure To achieve this aim, a sample of participants' transcripts will be analysed This sample will include transcripts of those who improved the most (experienced the greatest reduction in their depressive symptoms) and the least (experienced the lowest reduction in their depressive symptoms) in the experimental supportive and challenging conditions To achieve this goal the analysis that will be used is exploratory impressionistic analysis for each of these four case transcripts The analysis of these transcripts is intended to contribute to clarifying the process by which the emotional disclosure brings its outcomes The analysis was guided by two questions What might be happening during and what happened after the listener's comments that made some of them improve and the others not

7.1 Supportive condition

Analysis of transcripts for the participant who improved the most as a result of engaging in emotional disclosure task will be showed firstly, and then the analysis of transcripts for the participants who improved the least will be illustrated

7.1. A Case1: Most improved case

This participant was male, his age was 20 years old, single, he was at university level, he was severely depressed before the intervention (his BDI score at baseline was 30) and after four weeks he was non-depressed (BDI=6) In the first session, the participant talked about his abuse by his siblings He mentioned suffering from verbal, physical and emotional abuse committed by his siblings His relationship with them involved anger and conflict The participant considered his childhood stage as the most difficult stage in his life (the letters D and L indicate whether the speaker is Discloser or Listener It should be noted that words that do not have meaning and hesitations and pauses have been eliminated)

D "my relation with my siblings was not fine They were using all kind of violence in treating me They were always hitting me, putting me down "

Accepting these thoughts and feelings by the listener seemed to encourage the discloser to talk more about the stressor at hand The following transcript from the first session may support this nation

L "Oh dear, I think that was so hard to hold out"

Accepting these thoughts regarding the participant's relationship with his sibling by the listener seemed to make him to provide more details about his suffering

D "You know, my siblings` treating made me lose my confidence and suffering from fear, this was the reason of suffering all my life particularly, in my study that was very bad "

L You seemed that you suffered a lot from your siblings"

Receiving supportive feedback from the listener seemed to inspire the desire to provide more details about the impact of the abuse by his siblings to emphasize the size of his suffering

D "They were treating me badly all the time My childhood was the most difficult stage in my life I was isolated I did not like to be with other people They began considering me as the abnormal one "

L Your childhood stage seems to me a very difficult stage"

Continuing receiving acceptance from the listener appeared to make the discloser go further in describing other difficulty in his childhood stage This difficulty related to his relation with his parents

D "You know, I feel that my dad as he was not with us I had never felt his love Mum also was a good housewife but not a mum that should show us love and emotional care "

As the first session, the supportive feedback seemed to encourage the listener to elaborate on describing his stressor and give examples to stress how much they are suffering At the same time there was no indication of changes in cognition In this session, the participant talked about lack of confidence, feelings of fear and being easily irritated The participant mentioned that his sense that he is an unsuccessful person prevents him from trying to do things He considered lack of confidence to be responsible for his trembling when he is talking with anyone This makes him to feel embarrassed and leads him to avoid establishing relationships with others He also mentioned feelings of helplessness and worries about the future and whether he will get married or not, since he has concerns that he is not able to be a good husband

"My personality is weak, I lack confidence, a simple thing makes me irritated, and you can easily notice that from my voice and my hands that they become trembling Can you believe when I talk with anyone I feel so embarrassed? Now I am a failure student and I feel that I will not be a successful husband "

L "Oh dear, this is not comfortable at all "

D "I do not like to talk with anybody Because even if I talk with my classmate, I always feel nervous and sweat I always have feelings of fear and helplessness in my academic and social life"

L "Oh, this is so hard to hold out and a bit embarrassing"

D "I am so tired from thinking of my future I do not trust my self I will not be able to do any job and I feel that I am not good to be a husband or a dad"

L "Yes having such thoughts will make one so tired "

In the third session, the discloser exhibited a change in his cognition, since he seemed to prefer talking about his new realization regarding the responsibility of his siblings for abusing him At the first session the participant attributed his psychological problems to his sibling abuse, while in the third session he tried to justify his siblings` behaviour by considering this behaviour as a result of his parent's carelessness By changing his evaluation of his siblings (from being responsible for his psychological and educational problems to not being responsible for their behaviour in that time), the participant seemed to adopt a new perception about his siblings` behaviour

D "I think my siblings were just children, they did not realize what they were doing My dad and mum should have told them that what they were doing with me was not good But what am I saying is dad seemed like that he was not living with us and mum just was busy with cooking and washing"

L "yes, they were small children "

Accepting this new idea by the listener seemed to encourage the participant to elaborate on this idea Following is an example

D "You know, children always do not like each other when they are little and sometimes fight with their hands or they use bad words and they do not know that what they do is so bad But when dads and mums look after their children and they notice what they say and do, they will not allow them to do or say bad things for the child who is weak or small

In short, the participant's transcripts during the three sessions makes one to notice that the impact of the feedback from the listener encouraged the discloser to talk more about the stressor at hand This explanation of the impact of receiving supportive feedback is consistent with findings from Barkham and Shapiro's study (1986), that empathic communication is strongly correlated with exploration Further, it is in agreement with Rogers (1957, 1975) indications regarding the importance of empathic feedback in facilitating exploration

However, there was a little indication that cognitive restructuring may have taken place This indication of cognitive restructuring appeared when the participant changed the way of looking at his siblings from being responsible for his suffering to trying to find justifications to their vicious behaviour towards him

In fact, this impression is consistent with the judges ratings for cognitive restructuring Since the judges agreed that the participant experienced a poor level of cognitive restructuring The discloser may have experienced change in his cognition but this change may not have been reflected in his descriptions of his stressors since he was more concerned about exploring these parts of his life with the listener With more sessions, changes of utilized language would have appeared, supporting this participant's rating on the cognitive restructuring questionnaire, that indicated towards great changes in cognition It is also possible that another factor

was responsible for this improvement in depressed state, and his rating on the cognitive restructuring questionnaire reflected his feelings that something positive had occurred Alternatively, the great change in cognition as reported by the participant may have reflected his realization of another factor that was responsible for his episode While in the first session he believed that his siblings` treatment of him was responsible for what he suffered and what he has been suffering, in the third session he considered this episode to be his parents` fault as mentioned above

7 1 B Case2 Least improved case

The participant who presents this case was a female, her age was 25 years old, single, with high school level education She had a severe level of depression at baseline (the BDI=42) and this level was not impacted by the intervention after four weeks (the BDI=42)

In the first session, the participant talked about an attempt to rape her when she was about five by a man who was 18 years old This man was a relative She described the way that he made her believe him until he took her to a place where no one could see him or her voice could not be heard She also mentioned the impact of this experience in her later life , for example, distrusting men

D "I was beautiful when I was a child I was playing in front of his family's house He asked me if I wanted a sweet I agreed and I followed him to that place behind his family's house It was an old part of the area where no many people walked He tried to rape me but he could not"

L "Oh dear it was a hard experience although he could not hurt you was not

it "

Agreeing with the participant that this experience is stressful although the participant was not raped, seemed to encourage the participant to provide more details about this experience, by describing the negative impact of it on her life, and trying to reassure herself that God's justice may retaliate to her by making him unable to have children

D "Because of what happened to me I became afraid of having a relationship with a man I have not had any relationship

L "Oh dear it seemed it was not an easy experience"

D "I think God is punishing him, as he has not had children even though he got married for a long time a go Or maybe he has a problem and for this reason he did not rape me and he has not had children "

L "Yes, God gives a chance but He does not neglect "

In the second session, the participant talked about the differences between her and her class mates who became to have a high level of education although her academic performance was better than them

D "Many of the girls who were studying with me graduated from the university

and if I meet one of them accidentally, she pretends that she does not know me What is hurting me is that I was better than them "

In the third session, the participant talked about carelessness of her mother with her She attributed the attempt of raping her to her mum's carelessness She mentioned examples of this carelessness (i e letting her play at any time and anywhere) She believed that if her mum was protecting her she would not have faced that difficult experience

D "Mum did not know where and with whom I was playing Where and when I liked to go to play or who I visited She never asked me where I was playing "

Also she stressed that she still remember when her mum hit her on her head using a big stone just because she shouted at a neighbour who was fighting her mum This area of her head was still hurting her causing painful migraines In an attempt to emphasize how much she suffered from this attack she mentioned how much she bled

Looking at the participant's transcriptions as a whole one can make some points Firstly, similar to the former participant, supportive feedback seemed to encourage the participant to talk about her stressor at hand Secondly, like the previous participant, this participant emphasized the crucial role of the childhood stressor on current life Thirdly, although the participant showed evidence indicating to conduct some analysis, this analysis did not result in any change in the way of looking at her upsetting experience For instance, even though the participant connected her attempted rape to her mother's carelessness, she did not change the

way of looking at the experience itself, since until the third session, the participant still considers the event as stressful It may be for this reason the participant reported that she did not obtain a strong change in cognition on the cognitive restructuring questionnaire This was also consistent with judges` ratings that the participant had a low level in cognitive restructuring

There are several explanations that may explain why this participant differently from previous one, she did not experience improvement although both participants received the same feedback from the listener The participant may not have experienced any change in their cognition as reported by the participant herself, judges and the analysis of her transcripts The other explanation to these differences between this participant and previous one refers to the difference in their depression level This participant's depression level was worse than that of the previous participant This raises the question of whether the emotional disclosure is beneficial for individuals with severe depression Furthermore, since there has been an indication that males benefit more than females from emotional disclosure (Smyth, 1998), hence, the gender difference may play a role in producing this difference in the impact of emotional disclosure on those participants

7.2 Challenging condition

The analysis of the transcripts of the participant who improved the most as a result of engaging in the emotional disclosure task will be demonstrated first Then, the transcripts of the participant who benefited the least from the emotional disclosure procedure will be illustrated

7.2. A Case 1: Most improved case

The participant who benefited the most from disclosing personal upsetting experiences was a single female, her age was 20 years old She was at university level and moderately depressed before inducing the intervention (BDI=28) and non-depressed following four weeks after the intervention (BDI=9)

On the first session, the participant talked about her relationship between her mother and her father Her father was not respectful of her mother For example, the participant mentioned that her father was hitting her mother in front of her in addition to calling her many bad words She also mentioned how hard it was to see her mother running from one room to another to avoid her father` smacks

D " Nothing destroyed me when I was a child like seeing my dad hitting my mum I could not do any thing to help her Each time he was hitting her I was trembling and crying "

On the second session, the participant talked about her family's low socioeconomic status (i e Living in a very small house, inability to buy essential goods such as meat and milk)

D "Our economic level is very bad we hardly can afford the university fees and even food we are unable to eat as others can You know, we eat meat just on some occasions and rarely can we buy milk, and even I even go to the university with ripping shoes"

On the third session, the participant talked about her relationship with her

siblings that was characterized by being cold to the extent that no one knows the others` matters

D "We are family but we do not talk together no one knows the other's business each one of my siblings looks like live alone"

From a close look at the participant` transcripts, several points can be made First, the participant did not seem concerned about providing details regarding the stressor talked about, rather she seemed more concerned about trying to be more flexible in viewing her stressors at hand This concern emerged from her communication with a challenging listener When the challenging listener tried to challenge discloser's thoughts and feelings the discloser initially tried to defend those thoughts and feelings, but then she seemed to like the alternative thoughts provided by the listener Finally, she seemed to look for evidence to support her new perspective She seemed to start adopting a new perspective The following example may enhance this assumption

D "I always was thinking of dad as a monster When he was getting angry he was shouting very loudly and hitting us"

L "you should not blame your dad about his behaviour because you know this was the image of a dad among his generation He may have been so kind and he loved your mum but he thought that he should not show these feelings as they were a sign of weakness "

D "But there were some dads were so kind with their wives and children "

L "I think those were extraordinary not ordinary, but the majority of his generation may have been similar to your dad "

D "You know, my uncle and our neighbour had the same behaviour as dad I think they influenced him and I remember when one of us was sick he seemed so worried about him/her Even now he could have prevented me from study but no he has not done so"

The participant continued mentioning some situations that support her new view of her father

D "I was a small child, so I did not know what was happening between mum and dad, or maybe my dad was angry because he did not have money to bring what we needed"

This observed change in cognition is consistent with the ratings made by the judges It is also this that the participant herself felt as she reported a high level of experiencing cognitive restructuring This pattern of change can be observed during the second session as well However, in the second session, the participant seemed to accept the listener's views easier than the first session since when the participant was describing the difficulty in her family's economic status she reported that

D "I wish I could buy something from the university to eat as other students

do this is so difficult I just was watching others eating and some time I feel shy when some of them asking me why we have not seen you eating I always tell them that I do not like to eat outside home"

L "I do not agree with you regarding these feelings Because this situation is temporary I think the important thing is the future Now you can not eat or wear what you like, in the future you will be able to do so Because you put your feet on the right direction when you have chosen to have university degree So your future life will not be the same as your current life I think this is the important issue that you should see instead of focusing on the negative aspects of your current life"

L " yes, my salary will improve the situation but I do not know whether I will find a job or not Many people have graduated from the university but they have not worked for years Also I do not know whether my dad will leave my salary to me or he will take all of it "

D " When you will graduate you may easily find a job and we do not know whether your dad will take all your salary or not, for this reason I think it is not wise to make a negative prediction and become sad ultimately"

L "Yes, you are right but unfortunately this is my way of thinking I always expect trouble before it occurs Yes I should concentrate on my study if I need my future better than my current life

These indications that seemed to point to change in cognition were also

observed at the third session As session one, the participant started describing her stressor and then she offered explanation accounting of it

D "This cold relation between us is because my dad and mum did not bring us up as siblings They brought us up as strangers living together They did not teach us that we are siblings and we need to like and help each other Also because my dad was hitting us when we were playing together because he did not like our noise So we used to play each one alone because playing together meant we will be hit"

L "I really do not agree with you Because as you know many dads and mums do not like their children` noise and even they hit them because of this noise However, their children have strong relationships "

D "Yes, but because dad was hitting mum this may make us more scared than other children and we become afraid of talking with each other "

L "As you know, many children may have seen their dads were hurting their mums but their relationships are still strong They talk with each other they may even tell each other secrets "

D "Yes, I think you are right may be we should change this situation and sometimes my siblings have the same feelings but no one tells the other I will try to talk with my siblings but I do not know their reactions"

7.2. B Case 2: Least improved case

- The participant who benefited the least from emotional disclosure among

participants who disclosed to a challenging listener was a male His age was 46 years old, single with high school education level The participant was severely depressed (the BDI=32) before the intervention and at severe level (the BDI=42) at four weeks following the intervention

On the first session, the participant talked about his abuse from his father The participant mentioned some aspects of this abuse, for example, hitting him and burning using electric cord that marked on him (the participant showed to the listener some of these marks) In describing his upsetting experience, before receiving feedback from the listener, the participant did not show any evidence that indicates to change in cognition

D "My dad was treating me so badly, for any little mistake he was hitting me strongly His way of hitting me was by putting an electric cord in the electricity supply and then putting it on my body"

In describing his upsetting experience the participant was more concerned about showing how much he suffered from the way that he was treated so he mentioned a number of examples of this abuse

D " One day, I escaped from the school, when my dad found out he tied me to a tree and then he hit me till he finished a packet of cigarette "

Further, the participant was also trying to explore the reasons behind his dad`s behaviour in treating him such way

D "I think my dad was hitting me because he wanted me to be under his control, I just do what he likes, and when I grow up my salary will be his "

Challenging the participant's thoughts regarding his explanation of his dad's abuse, initially led him to try to look for more evidence supporting his view

L "how do you think hitting you would make you under your dad's control? This treating may make you hate him and then you would behave against his desires and also you will not give him your money "

D "No I do not think so My dad was illiterate, thus according to his understanding this was how he was thinking"

L "Okay, because he was illiterate he may have thought this was the way to make you a strong man, according to his knowledge"

D " Yet I remember one day when he hit me because I fought with my neighbour's son he said to me I would smash you, are you happy with your muscles would you like to show others how much you are strong, do you think you become a man ? "

L "I think this was just a reaction to what happened But In fact he may have liked you to be a strong boy"

Continually challenging the participant's thoughts seemed to result in making him start looking for evidence supporting the listener's point of view

D " You know, I remember that day he asked my mum whether I ate my lunch or not Yes I think he was worried about me "

The listener continued to support her notion using evidence provided by the participant

L "See, he looked like he approved what you did This may have Meant that he was also hitting you because he thought this was the way to strengthen your personality And when he saw you showing ability to fight your neighbour's son he was happy because he succeeded in what he planned"

As the participant continued demonstrating evidence supporting the new view of looking his father, the listener analysed the evidence in agreement with a new perspective of viewing the participant's stressor
The participant seemed to approve his abuse by his father since he demonstrated evidence enhancing the advantage of abusing him, that it made him a strong man

D "you know, other man in my situation (unemployed) he may take drug due to leisure and to forget my difficult situation to be unemployment in this age But I have not taken drug despite of my depressed state that I have "

This indication that his ability to resist taking drug (that means that he has a

strong personality) attributed to his father's treating in childhood stage seemed to give impression that he may change his view about that treatment and maybe his father as well

On the second session, the participant talked about his socioeconomic situation and his sense that he was useless since he was unemployed He talked about his feelings of worthlessness and even his difficulty in thinking of establishing a family like his peers, in addition to his concern that he did not know when this problem will be resolved

D "I am 46 years old and I am not working You know, the importance of one emerges from he is being working I feel that I do not have any worth Now I am 46 years old I wonder how many years I have to live and when I will find a job All people in my age are married and have children but I can not even think in getting married I feel that everything is against me and all doors are closed in front of my face "

Even though the participant showed acceptance of the listener's thoughts, he did not seem to experience change in his view about his stressor

L "I know work is very important, but not finding a job should not result in these feelings it is not the end of the world I think many people have the same situation or worse For example, they are unemployed and they have family but they are not as sad as you"

D "I am 46 years old, if I did not work now when can I work when I reach

retirement age When can I establish a family"?

L "What I am not agreeing with you is this intensity of your feelings If you had had family, the problem would have been more serious Yet now the problem is less serious and you also still may find a job and establish a family You worked for a long period of time and your work was a bit hard so why you do not see this time of your life as a chance to have a rest If you have a family and also you were also unemployed it would have been real suffering "

D "yes, this is what I thought at the beginning but then this rest has lasted too much It may be you are correct but my age make this situation is difficult"

On the third session, the participant talked about his situation as unemployment and how much he is suffering from this state For example, losing his freedom, and his inability to live independently

D "Even though I am 46 years old but I still take money from my dad I feel embarrassed when I ask my dad sometimes to give me money when I need to buy some private stuff Each time I ask my dad for money he does not like to give it to me He usually shouts and calls me with some bad words In my age I feel I should have my own house to live as I like, but because I am not working so I have to live with my family although I do not like so I love my family I just like to live my own life I feel this is the way to protect my dignity"

Challenging these thoughts and feelings seemed to make some modification in the way of viewing this stressor However, this modification did not include all aspects of the problem

L "Living with your family I think has a lot of benefits I do not see it as a problematic You have a place where you can sleep, eat, and receive emotional support without paying money I think you should not blame your dad for his behaviour His money may not be enough to meet all family demands or it may be that he does not want you to rely on him and to look for a job He may think that if he gives you easily what you need, he may encourage you to stay unemployed He may think that this is the way to push you to look for a job "

D "Yes my dad is retired and his salary is not high I can understand his reaction In this age I should help him to look after the family As you said living with my family is better for me but I like to live independently Although in my situation living with my family is better for me "

Despite this indications that change in cognition seemed to take place, which also was reported by the judges and by the participant himself, the participant did not experience a reduction in his depressive symptoms as did the previous participant who also demonstrated changes in her cognition It may be due to the level of depression since this participant was more depressed than the previous participant Alternatively, it maybe that another process was responsible for the improvement in depression experienced by the former participant

In short, showing acceptance and agreement with the participant's thoughts

and feelings seemed to encourage him/her to talk more about the problem at hand Even though sometimes the participant showed indications of conducting some analysis of the causes and effects of the problem, this analysis, at least from the participant's speech, did not seem to result in a deep cognitive restructuring or a high level of it The participant may experience cognitive change but they may pay more attention to providing proofs for what they have mentioned than showing what was going on in their mind With more time this change may have appeared in one's speech Differently from those participants, participants whose thoughts and feelings were challenged showed more cognitive restructuring indications in their speech than concerns about providing more details about their stressors, except when they tried to prove their thoughts Conversation with the challenging listener seemed to lead directly to focus on the evaluation of thoughts and feelings at hand Thus when one experienced changes in his previous evaluations he seemed to show so as the former evaluation is the main issue of the discussion with the listener, while talking with the supportive listener seemed to lead to exploring other stressful events related to the original event disclosed Thus, the evaluation of one's perception may have extended to all related events not just the disclosed event However, since the participant's evaluation was not the topic being discussed the participant may have been more concerned about talking about his upsetting experiences than showing indications of changes in his perceptions, even though he may have experienced such change

CHAPTER 8

DISCUSSION

The present study presents an advance in the literature on the disclosure procedure Although much research finds that disclosing upsetting experiences has beneficial cognitive and psychological impacts, the mechanisms through which these impacts occur remain unclear Further, it has not been determined whether or not these impacts would occur for a patient sample suffering from severe depression The aim of this study was to determine whether, under what conditions (i e , disclosing to a supportive listener, disclosing to a challenging listener, disclosing alone, disclosing via writing), and how disclosing upsetting experience leads to a reduction in depressive symptoms among participants who were clinically depressed These aims were formulated into four hypotheses The first hypothesis addressed whether emotional disclosure is really beneficial (as measured by a reduction in depressive symptoms) for participants who are virtually depressed The second anticipated that cognitive restructuring is a mediator relationship between emotional disclosure and its outcomes Next, it was predicted that disclosing to a challenging listener is the most beneficial feature of emotional disclosure in reducing depressive symptoms The following sections of this chapter evaluate the results related to these hypotheses

8.1 *Study Hypotheses:*

8.1.1 Hypothesis 1: The impact of emotional disclosure on depressive symptoms

This hypothesis focused on whether disclosing stressful events resulted in a greater reduction in depressive symptoms than not disclosing such events As anticipated, a significant interaction between time and treatment emerged The participants in the disclosure conditions demonstrated fewer depressive symptoms over time, whereas the participants in the control conditions showed more depressive symptoms across time Even though the present results are consistent with previous studies (Broderick, *et al*, 2005, Sloan *et al*, 2005 , Sloan and Marx, 2004a), they contradict others (Batten *et al*, 2002, Gidron *et al*, 1996Gortner *et al*, 2006, Kloss and Lisman, 2002) A possible explanation for these conflicting results indicates the differences between the sample utilized in those studies and the present study In previous studies, the sample mainly consisted of healthy participants who may not have had serious stressful events to disclose and, hence, may not be in need of this intervention, as Frattaroli (2006)) suggested, or they might not lack the necessary skills to manage their stressors, as Bootzin (1997) suggested Healthy participants also initially may not have suffered from particular symptoms that can changes in them be measured

The current findings are in line with those of Greenberg and Stone (1992) and Pennebaker *et al*, (1987), since more of the participants with higher stress were more likely to benefit from disclosing their upsetting experiences The present results seem also to support the possible explanation provided by Meads *et al* (2003), since

utilizing healthy participants may have been responsible for the null effect of emotional disclosure in their meta-analysis Thus, the present findings appear extremely important, as they are the first to provide evidence supporting the clinical utility of the disclosure procedure Hence, these findings pose the possibility that emotional disclosure can be utilized as part of clinical practice

The finding that emotional disclosure has produced a reduction in depressive symptoms without help from a trained, qualified psychotherapist may also provide support for Rogers` s point of view (Rogers, 1980) that the effectiveness of psychotherapy does not rely upon utilizing special treatment technique, but rather on the therapeutic relationship between a patient and a psychotherapist

There are several reasons that may account for these beneficial impacts of the disclosure procedure on depressive symptoms Firstly, it may be that disclosing upsetting experiences led to a reduction in inhibition, so, in turn, the participants experienced a decline in the negative effects of inhibiting their stressor-related thoughts and feelings Suffering from depression may be one of these negative effects It is also possible that the participants had stressful events to disclose, as there has been numerous studies linking the onset of depression and a history of stressful events (e g ,Billings *et al*, 1982, Lloyd, 1980, Paykel, 1979) Disclosing such events might result in obtaining benefits from this intervention The other reason explaining the positive effects of emotional disclosure on depression is that depressed individuals may lack the skills needed to cope with their stressors which make them need this intervention, since there has been an indication that depression is characterised by a lack of coping mechanisms (Billings *et al*, 1983) Another possible explanation of the beneficial effect of the disclosure procedure on depression is that disclosing one`s upsetting experience may lead to a reduction in

rumination, which was found to be a common feature among depressed individuals (see Beck, 1970) Additionally, the fact that this intervention proved effective with depressed individuals may be due to the changes in cognition that may have occurred as a result to the intervention Highlighting this idea is the finding that depressive symptoms were correlated negatively with cognitive restructuring

8.1.2 Hypothesis 2: Between-Groups Differences in Effects of Emotional Disclosure on Depressive Symptoms

Hypothesis 2 addressed whether participants in disclosing orally to a challenging listener condition reported the greatest long term reduction in their depressive symptoms Contrary to this anticipation, disclosing orally to a challenging listener had a null effect on depressive symptoms, whereas disclosing orally to a supportive listener had the greatest beneficial effect on depressive symptoms Particularly, describing one's stressor-related thoughts and feelings to a confederate who showed acceptance of these thoughts and feelings led to the greatest benefits The size of the benefits demonstrated by the participants in disclosing to a supportive listener condition was surprising, as there were no impacts shown by the participants in the disclosing to a challenging listener condition It was found that, when a listener reflected the participants' thoughts and feelings related to their stressors, the participants showed a significant reduction in their depressive symptoms immediately after the intervention and this change was maintained four weeks later

These findings suggest that accepting the discloser's interpretations of and

reactions to a stressor may be seen as a sign of encouragement that increases confidence in the self and inspires the desire to go into deeper analysis and to discuss openly different aspects of the stressor It has been found that self-exploration is related to the empathic relationship between a patient and a psychotherapist (Kurtz & Grummon, 1972) This frank expression about one's upsetting experiences may enhance the ability to produce discourse that facilitates cognitive restructuring which, in turn, may lead to a reduction in depression It is also possible that reflecting back individuals' thoughts and feelings makes them realize new facts surrounding the stressor and see the stressor as less stressful, leading them to challenge their former evaluations These aspects of change may result in a reduction in depressive symptoms Alternatively, this acceptance to one's thoughts and feelings brings about a change in the way a person evaluates him/her self which produces changes in self-perception It has been indicated that misinterpreting the self is one feature of depression (Gotlib & Hemmen, 1992) It is also possible that this empathic relationship may lead to self-acceptance that produces therapeutic changes, as Rogers, (1986) suggested It is also possible that, as Rice (1984) stated, reflecting back one's schemas can help one to re-evaluate them This re-evaluation may lead individuals to come up with different views to the stressor subsequently, producing alterations in emotions that are reflected in the reduction of depressive symptoms

The present findings are in agreement with speculations made by several scholars (e g ,Clark, 1993, Lepore, 2004, Thoits, 1986), since reflecting back the discloser's interpretations of his/her stressor has been seen to create a greater opportunity for cognitive restructuring and hence, better health outcomes The present results also provide support for Rogers's idea (1980), since Rogers regards

empathy (with unconditional acceptance and genuineness) as a therapeutic condition He links empathy to the therapy process and therapy outcomes, the more empathy there is in the therapeutic relationship, the more likely it is that the therapy process will be facilitated, which subsequently leads to more changes The present results are also consistent with previous studies in the psychotherapy literature (Barrett-Lennard, 1962, Kurtz & Grummon, 1972, Lesser, 1961, Saltzman, 1976, Sapolsky, 1965,), but they contradict previous studies in the emotional disclosure literature (Donnelly & Murray,1991, Lepore *et al* 2000, Lepore *et al*, 2004) However, those studies that utilized the disclosure procedure had serious methodological limitations to the extent that it is impossible to draw conclusion from them (see chapters 1 and 2 for these limitations)

Contrary to the expectation that disclosing to a challenging listener would produce the greatest impact on depressive symptoms, dissimilar participants had a null effect on depression There are several explanations that may account for this contrariety It may be that exposing one to different interpretations and alternative ideas may serve as another stressor that inhibits disclosers from expressing their stress-related thoughts and feelings openly and subsequently may result in suffering from the negative impacts of inhibition mentioned by Panderer (1997) It is also possible that disclosing to a challenging listener may create a misleading impression and stimulate feelings of rejection that may hinder the production of discourse that results in gaining beneficial effects assumed from disclosing upsetting experiences, as this continuous correction to individuals' perceptions may be perceived as a kind of judgment and evaluation that makes disclosers skip parts of their upsetting experiences Dissimilar and criticizing individuals may also evoke hostile feelings towards a listener These hostile feelings may make the participants hold back some

of their stressful experiences, not go into details in describing them, or make them not accept a speaker's ideas or point of view This holding, summarizing description, or stubbornness may reduce individuals opportunities for cognitive restructuring ultimately, and individuals may not gain any change in their depressive symptoms

In line with the stated prediction, writing about stressful events resulted in a reduction in depressive symptoms The present results are in agreement with the speculation mentioned by Esterling *et al* (1999) that writing about upsetting experiences has the ability to be an effective therapeutic approach to enhancing psychological health Particularly, they stated, it can be effective for reducing depressive symptoms These results also support expectations reported by Kacewicz *et al* (in press) regarding the positive impacts of written disclosure for individuals suffering specifically from psychological disorders This beneficial effect of written disclosure may be due to specific characteristics inherent in written language (e g , less spontaneous and more structural planning , greater opportunity for corrective self-feedback precise editing and less spontaneous) as stated by researchers in discourse studies (Brewin & Lennard 1999, Lakoff,1982, Poole & Field, 1977, Reducer,1984) These characteristics may have resulted in producing discourse that facilitated cognitive restructuring which, in turn, have lead to a reduction in depressive symptoms

Despite these beneficial effects of disclosing via writing, these impacts did not persist at four weeks following the intervention as did disclosing to a supportive listener This result is consistent with the null effect of written disclosure at long-term, that was found by Murray *et al* (1989) and Donnelly and Murray (1991) It may be that written disclosure is too brief to produce long-term health impacts, as suggested by Donnelly and Murray (1991) It is also possible that disclosing via writing may be

accompanied by negative feelings resulting from exposure to troublesome feelings These negative feelings may reduce the individuals` opportunities to achieve deeper cognitive restructuring (e g , hinder them from providing details about their stressors, going into a deeper analysis of the causes and effects) In contrast, promoting the disclosure of stressful events with supportive resources may lead to the production of discourses that result in stronger and deeper changes in cognition which lead ultimately to a more stable change in depression, since providing approval feedback may maximize the individuals` opportunities in cognitive restructuring Individuals may be more encouraged to elaborate, analyze, and clarify matters Further, unlike written disclosure, disclosing to a supportive listener may play a crucial role in reducing the stress produced from reliving stressful experiences This may help in completing the process required to deal with stressful experiences, as Segal and Murray (1994) suggested

Other findings that contradict the stated expectation is the null effects of disclosing alone on depressive symptoms Several explanations for this contrariety seem possible One possible explanation indicates the sample size of this condition In other words, the impact of disclosing alone might be exist, yet the cell did not have the power to detect it Thus, it is possible that, with a larger sample size, the impact of this intervention could have appeared Another possible explanation for this null effect is that, since disclosing into a tape recorder is less common for expressing one`s personal thoughts and feelings as disclosing them via writing or to someone else, this may have inhibited the participants to disclose openly these thoughts and feelings Discouraging the participants from expressing their feelings may hinder them from producing discourse that leads to promoted cognitive restructuring This may have resulted in a decrease of their opportunity for cognitive restructuring The

reduction in the opportunity for restructuring stressful events cognitively might have resulted in a decline in the beneficial impacts of emotional disclosure on depression

The present results are inconsistent with Murray and Segal' s study (1994) Several explanations may account for this disagreement Firstly, differently from this study, the participants in Murray and Segal's study (1994) were healthy students, hence, they may not have had experiences that are seriously stressful, unlike the participants in the present study Accordingly, it may have been easier to them to talk about their upsetting experiences into a tape recorder, whereas the participants in the current study were more likely to have experienced more serious stressful events than Murray and Segal's participants, as it has been found that the onset of depression is associated with a history of stressful events (Billings & Moose, 1982, Lloyd, 1980, Paykel, 1979) Thus, contrary to Murray and Segal's (1994) participants, the participants in this study may have found it difficult to disclose their troublesome feelings into a tape recorder In other words, the tape recorder may have become a negative stimulus that hindered the participants from disclosing their stressful events in a way that would lead to cognitive restructuring Subsequently, the participants' depressive symptoms may not have positively affected by engaging in this procedure Another possible explanation for this difference between the present study's results and those of Murray and Segal (1994) is that the participants in the latter belonged to a western culture, while those in the current study had an eastern background These cultural differences may have played a crucial role in the differences in the findings between the two studies People from eastern cultures may be unfamiliar with expressing their personal emotions into a tape recorder This may have hindered the participants in this study from disclosing their troublesome feelings frankly This may have inhibited them from frame a narrative that facilitated

cognitive restructuring, which might have decreased the beneficial effects of emotional disclosure on depression Supporting this assumption is the fact that, when the participants in the disclosing alone condition were told that they are going to disclose orally their feelings alone, unlike the other participants, they exclaimed in shock and asked several questions (e g , is not there someone to listen to me? how can I talk into a tape recorder? how can talking into a tape recorder treat me?) The other possible explanation for the differences between this study and that of Murray and Segal (1994) may have referred to the difference in the sample size The sample size used in the current study was smaller than that used in Murray and Segal' s study (n= 30) which possibly led to insufficient power appropriately to assess the outcome impacts The dosage of disclosure presents another factor in which the present study differed from Murray and Segal' study (1994) The participants in their study were asked to disclose for 20 minutes during four sessions, while the participants in the current study disclosed for 20 minutes over three sessions Hence, these differences in terms of the dosage of disclosure may contribute to explaining this inconsistency between the present results and Murray and Segal' results Particularly, there has been an indication that disclosure outcomes are impacted on by the dosage of disclosure (Frattaroli, 2006)

The present findings regarding the null effect of disclosing into a tape recorder are also inconsistent with Esterling *et al*'s (1994) study, although this had serious limitations (see chapters 1 and 4) to the extent that it is impossible to draw conclusions from it

8.1.3 Hypothesis 3: Effects of Disclosing Stressful Events on Cognitive Restructuring

In trying to explore the mechanisms underling the beneficial effects of emotional disclosure on depression, Hypothesis 3 investigated whether there was a correlation between the reduction in depressive symptoms and an increase in cognitive restructuring In line with this prediction, there was a significant negative relationship between depressive symptoms and cognitive restructuring The present results are consistent with the cognitive processing theories proposed by Beck (1970), Frijde (1986), Hammen (1988), Krantz and Hammen (1979), and Lazarus (1991) Particularly, depressive symptoms depend upon individuals` evaluations of their experiences, and a depressive mood relies on individuals` evaluations of their stressful experiences These results also support speculation reported by Lazarus (1991) that the most effective way to reduce the painfulness of negative feelings may be by changing the appraisals that resulted in the initial stress subsequently, since the recovery from distress is a sequence of adopting more positive appraisals Further, the present findings are in agreement with Rogers`assumption (1951) that "When the perception changes, the reaction of the individual changes" (page, 486)

These findings suggest that the reduction in depressive symptoms resulting from disclosing stress-related thoughts and feelings is probably produced by positive alterations in the disclosers` perceptions about their stressor The possible explanation for these alterations occurring is that, when one puts one's stressful events in linguistic format, one may try hard to be understandable The processes whereby the discloser tries to construct these events comprehensively (e g , providing background information, clarifying, elaborating, explaining , mentioning causes and effects, highlighting points, drawing connection and categorizing

particulars, Clark, 1993, Ringlet & Bruce, 1982) may make the discloser views his/her stressor differently, and realize the positive aspects of his/her stressful events The new view of the stressor and the realization of its positive aspects may have enhanced the opportunity to broaden the discloser's perspectives and alter or modify the former interpretation of and response to the stressor Adopting a positive perception of upsetting events may lead to positive changes in emotional state that are reflected in the reduction of depressive symptoms

These findings pose the question whether there is a real need for a qualified psychotherapist to achieve cognitive and emotional changes or whether simply talking with someone may achieve what can be obtained from psychotherapy sessions

8.2 Practical Implications

A strength of the present study is that it is the first to provide evidence supporting the clinical utility for emotional disclosure for depression It has been found that emotional disclosure can lead to a reduction in depressive symptoms for participants who were clinically depressed These findings are promising With an increasing number of people suffering from depression, it would be valuable to adopt it as a part of clinical practice as it cost-effective and easy to apply It can be also used as a preventive approach

The other advantage of this study is that the most effective feature of emotional disclosure has been determined It has been found that disclosing to a supportive listener produced the greatest beneficial change in depression Thus, it is suggested that, when a depressed patient engages in exploring his/her personal thoughts and feelings, providing him/her with similar feedback can be more beneficial than

showing disapproval of these thoughts and feelings Moreover, these findings pose the possibility that encouraging one to disclose stressor-related thoughts and feelings and providing similar feedback has the potential to reduce the severity of depression without applying expensive therapy Further, when individuals undergo an emotional crisis, it may be advisable to talk to someone who can be supportive and avoid those who are critical

Another strength of this study is that the mechanisms by which emotional disclosure produced beneficial changes in depression have been identified Cognitive restructuring is the factor accounting for the produced positive changes The findings of this study showed that emotional disclosure led to a reduction in depressive symptoms for clinically depressed participants through positive changes in their perceptions about stressors Therefore, it is suggested that encouraging depressed patients to adopt cognitive restructuring as psychotherapy setting might make the therapeutic approach utilized more effective

Moreover, these findings may make the disclosure procedure the treatment technique hoped by many researchers and practitioners, since it is a more cost-effective and easier treatment technique than traditional approaches The disclosure procedure can be employed by depressed individuals themselves or, to obtain greater benefits, the disclosure procedure can be utilized by others related to depressed individuals, such as parents, teachers, social works, friends, partners as long as the skill of reflecting empathic feedback can be learnt (Rogers,1986)

The measure of Cognitive Restructuring developed in this study showed acceptable levels of reliability and validity with the Libyan sample The scale is designed in such as way that it enables the participants to answer its items without confusion and enable a researcher to mark it easily It can be applied to any variable

by substituting the target term with the questionnaire's terms (e g , These sessions have made me see my concerns differently) It might be valuable to adapt this scale to use it in different cultures Particularly, as mentioned in chapter 4, available scales to measure cognitive restructuring have serious problems Additionally, to my knowledge, there is no a scale to measure changes in one's perceptions It can be used, for instance, in cross-cultural studies or to find whether or not there is a relationship between changes in perceptions about stressors and other variables (e g , self-concept)

8.3 Directions for Future Research

As shown above, examining the study's hypotheses was fully supported The finding that disclosing stressful events led to a reduction in depressive symptoms among participants who were clinically depressed justifies further research to examine the impact of emotional disclosure on other psychological disorder samples, such as anxiety, obsessive-compulsive and the like Particularly, there has been an indication that all psychological disorders have a history of stressful events (Gotlib, & Hammen, 1992)

Although it was found that emotional disclosure resulted in improvements in depression, however, investigating which feature of the disclosure procedure produced these improvements most showed that disclosing into a tape recorder and to a challenging listener had a null effect on depressive symptoms Constraints on time and attrition restricted the sample size in these conditions, and future research should utilize a larger sample size in order to increase the statistical power of a study design to see whether or not these features are effective with the patient population The results related to which feature of disclosure had the maximum effect on depressive symptoms are inconsistent with previous research Given the likelihood

that cultural differences led to these differences, further investigation needed to be conducted with cultural differences being controlled to determine whether cultural differences or utilizing a patient sample caused these inconsistency,

Since it was found that the reduction in the beneficial effects of disclosing to a supportive listener was maintained at four weeks following the intervention, and since previous research with healthy participants found that beneficial changes in psychological health measures provided by disclosure procedure persist for as long as 16 months (Pennebaker *et al*, 1989), further investigation is needed to examine continuity across time for the beneficial changes produced by emotional disclosure in depression and cognitive restructuring among a clinically depressed patient sample, in which, data for the delayed post-test period can be collected at longer than four weeks or it could be at two or more periods of time However, it should be noted that several factors encountering such research seem possible For instance, there may be difficulties in contacting participants after a long period of time or in maintaining their desire to continue to participate which, in turn, can lead to the likelihood of attrition problems It also may not be possible to attribute the changes demonstrated by the participants to the intervention per se, as there would be factors that cannot be controlled, such as changes in the participants' circumstances Further, there may be measurement error

It has been found that reflecting back the participants' stressor-related thoughts and feelings led to the greatest reduction in depressive symptoms Additionally, it has been found that there is a negative significant relationship between cognitive restructuring and depressive symptoms Unfortunately, the sample size in the disclosing to a supportive listener condition prevented the determination of whether or not there has been a correlation between cognitive restructuring shown by the

participants in this condition and their severity of depression Therefore, there is further investigation needed to see whether or not the empathic relationship between an experimenter and the participants affects cognitive restructuring subsequently, resulting in a decline in depressive symptoms Such findings may bridge the chasm between cognitive behaviour therapy and client-centered therapy Further, these findings may be considered as empirical evidence for the matching between cognitive behaviour therapy and client-centred therapy assumed by several researchers (e g , Rice,1984, Turis & Cochran, 2006)

Conclusion

(1) It was argued in chapter 4 that disclosing upsetting experiences can lead to a reduction in depressive symptoms in individuals who are clinically depressed As predicted, it has been found that emotional disclosure led to a reduction in depressive symptoms among participants who were virtually depressed These findings pose the possibility that this intervention can be adopted as part of clinical practice

(2) It was argued in chapter 4 that cognitive restructuring is the mechanism under which disclosing upsetting experiences resulted in a reduction in depressive symptoms Supporting this hypothesis, it has been found that cognitive restructuring was correlated negatively with depression It appears that disclosing troublesome feelings can lead to changes in perceptions about stressors and, ultimately, reduce depressive symptoms These findings are important to consider in psychotherapy settings to direct patients towards cognitive restructuring in order to maximize the impacts of the utilized method

(3) It was argued in chapter 4 that disclosing to a challenging listener would result in the best outcomes in depression measure Contrary to this prediction, it has been found that providing different perceptions about the disclosers stressor had a null effect on their depressive symptoms In contrast, it has been found that reflecting back stressor-related thoughts and feelings produced the greatest reduction in depressive symptoms This is critical to regard in psychotherapy situations in order to avoid challenging the patients` thoughts and feelings, rather providing them with similar perceptions

It is also important to regard when counselling individuals, such as children, students, friends, or partners, when they face stressful events Further, it is essentially for individuals experiencing crisis to avoid people who trend to criticise them on how they deal with their stressors

(4) In agreement with the scholar theorization mentioned in chapter 4, it has been found that writing about stressful events result in a reduction in depressive symptoms immediately following the intervention However, this impact was not maintained four weeks after the intervention It is important to consider this in clinical practice to combine this technique with traditional methods

(5) Contrary to the scholarly speculation mentioned in chapter 4, it has been found that talking alone about stressful events had a null effect on depressive symptoms It seems that the sample size of this condition reduces the power of the study design to detect a significant effect, despite whether such an effect is existent

(6) According to transcripts Analysis, it has been found that showing acceptance and agreement with the participant's thoughts and feelings seemed to encourage the discloser to talk more about the problem at hand rather than resulting in a deep cognitive restructuring or a high level of it Whereas, participants whose thoughts and feelings were challenged showed more cognitive restructuring indications in their speech than concerns about providing more details about their stressors, except when they tried to prove their thoughts

(7) The findings suggest some directions for future research Firstly, further research needed to be conducted to see whether or not disclosing

upsetting events would result in improvements in psychological health for individuals suffering from other psychological disorders (e g , anxiety, obsessive-compulsive behaviour) Secondly, there is more investigation needed to determine whether cognitive restructuring is a possible explanation for the reduction in depressive symptoms resulting from disclosing to a supportive listener Thirdly, it would be valuable to examine continuity over time for the positive impacts of emotional disclosure on depressive symptoms and cognitive restructuring for the patient sample by collecting data for the delayed post-test at more than four weeks or at more than a delayed post-test Additionally, it seems advisable to examine the psychometric properties of the Cognitive Restructuring Questionnaire developed in this study in different cultures Finally, future research aimed at examining whether disclosing alone is beneficial for a clinically depressed sample should consider employing a larger sample size

REFERENCES

Abdul-Atı, M (2008) The status of woman ın Islam Retrıeved August 31, 2008, from Jannah web sıte http //www ȷannah org/sısters/statuswomen html

Abramson, L Y, Metalsky, G, & Alloy, L B (1989) Hopelessness depressıon A theory-based subtype of depressıon *Psychologıcal Revıew*, 96, 358-372

Abramson, L Y, Selıgman, M E P, & Teasdale, J D (1978) Learned helplessness ın humans Crıtıque and reformulatıon *Journal of Abnormal Psychology*, 87, 49-74

Alansarı, B M (2006) Internal consıstency, Arabıc adaptatıon, Beck Depressıon Inventory-II, college students, BDI-II, Arabıc countrıes, adequacy, cross-cultural *Socıal Behavıour and Personalıty*,34, 425-430

Al-Deen, N (2004) *Qadar A Measured Destıny* Retrıeved August 31, 2008, from Islam Onlıne web sıte http //www ıslamonlıne net/neglısh/ıntroducıngıslam/belıef/destıny/artıcal e03 shtnl

Allgood-Merten, B , Lewınsohn, P M , & Hops, H (1990) Sex dıfferences and adolescent depressıon *Journal of Abnormal Psychology*, 99, 55–63

Al-Munaȷȷıd, M , S (1999) *Islam's treatment for anxıety and worry* Saudı Arabıa, Rıyadh Internatıonal Islamıc Publıshıng House

Al-Musawı, N M (2001) Psychometrıc propertıes of the Beck Depressıon Inventory-II wıth unıversıty students ın Bahraın *Journal of Personalıty*

Assessment, 77,568-79

Al-Qaradawy, Y (2002) *The status of women ın Islam* Retrıeved August 31, 2008, from the Wp onlıne web sıte http //www wıtness-pıoneer org/vıl/Books/Qwl?default html

Al-Qarnı, A (2003) *Don't be sad* (2nd ed) Rıyadh Internatıonal Islamıc Publıshıng House

Amerıcan Psychıatrıc Assocıatıon (1995) *Dıagnostıc and statıstıcal manual of mental dısorders* (4th ed) Washıngton, D C

Amerıcan Psychıatrıc Assocıatıon (2000) Practıce guıdelıne for the treatment of patıents wıth major depressıon dısorder(revısıon) *Amerıcan Journal of Psychıatrıc*, 157, (Suppl, 4), 1-45

Amerıcan Psychıatrıc assocıatıon (1994) *Dıagnostıc and statıstıcal manual of mental dısorders* (4th ed) Washıngton, DC Author

Amerıcan Psychıatrıc Assocıatıon (2000) Dıagnostıc and Statıstıcal Manual of Mental Dısorders 4th ed (text revısıon) (DSM-IV-TR) Arlıngton, VA

Anastası, A (1968) *Psychologıcal testıng* (2nd ed), New York Macmıllan, London Collıer-Macmıllan

Andrews, B & Brown, G W (1988) Socıal support, onset of depressıon and personalıty An exploratory analysıs *Socıal Psychıatry and Psychıatrıc Epıdemıology*, 23,99-108

Angest, J , Gamma, A , Benazzıf , Ajdacıc, V, Eıch, D, & Rossler, W (2003) Toward a re-defınıtıon of subthreshold bıpolarıty epıdemıology and proposed crıterıa for bıpolar-II, mınor bıpolar dısorders and hypomanıa *journal of Affectıve dısorders*, 73, 133-146

Arean, P A , Perrı, M G , Nezu, A M , Scheın, R L , Chrıstopher, F , & Joseph,

T X (1993) Comparative effectiveness of social problem-solving therapy and reminiscence therapy as treatments for depression in older adults *Journal of Consulting and Clinical Psychology*, 61,1003–1010

Arrindell, W A , Barelds, D P H , Janssen, I C M, Buwalda, F M , & Ende, J (2006) Invariance of SCL-90-R dimensions of symptom distress in patients with peri partum pelvic pain (PPPP) syndrome *British Journal of Clinical Psychology*, 45,377 - 391

Austenfeld, J L , Paolo, A M & Stanton, A L (2006) Effects of writing about emotion versus goals on psychological and physical health among third-year medical students *Journal of Personality*, 74, 267-286

Avasthi, A , Khan, M K , & Elroey, A M., (1991) Inpatient sociodemographic and diagnostic study from a psychiatric hospital in Libya International *Journal of Social Psychiatry* 37, 267–279

Bagby, R M , Cox, B J , Schuller, D R , Levitt A J , Swinson, R P, & Joffe, R T (1992) Diagnostic specificity of the dependent and self-critical personality dimensions in major depression *Journal of Affective Disorders*, 26, 59-64

Baig,K (2006) Istighfar Seeking forgiveness from Allah Retrieved August 31, 2008, from Geocities web site http //www geocities com/mutmainaa/istighfar html

Baikie, K & McIlwain, D (2008) Who does expressive writing work for? Examination of alexithymia, splitting, and repressive coping style as moderators of the expressive writing paradigm *British Journal of Health Psychology*, 13, 61-66

Baikie, K A & Wilhelm, K (2005) Emotional and physical health benefits of

expressive writing *Advances in Psychiatric treatment*, 11, 338-346

Barkham, M , & Shapiro, D A (1986) Counselor verbal response modes and experienced empathy *Journal of Counseling Psychology*, 33, 3–10

Barnett, P A , & Gotlib, I H (1988a) Dysfunctional attitudes and psychosocial Stress the differential prediction of future psychological symptomatology *Motivation and Emotion*, 12, 251-270

Barnett, P A , & Gotlib, I H (1990) Cognitive vulnerability to depressive symptoms among men and women *Cognitive Therapy and Research*, 14, 47-61

Barnett, P A , & Gotlib, I H (1988b) Psychosocial functioning and depression Distinguishing among antecedents, concomitants, and consequences *Psychological Bulletin*, 104,97-126

Barrett-Lennard, G T (1962) Dimensions of therapist response as causal factors in therapetic change *Psychological Monographs*, 76 (43, Whole No 562)

Batten, S V, Follette, V M , & Palm, K M (2002) Physical and psychological effects of written disclosure among sexual abuse survivors *Behavior Therapy*, 33, 107-122

Beck, A T (1972) *Depression Causes and treatment* Philadelphia University of Pennsylvania Press

Beck, A T , Ruch, A J , Shaw, B F , & Emery, G (1979) *Cognitive therapy of depression* New York Guilford Press

Beck, A T , Steer, R A , Ball, R , & Ranieri, F (1996) Comparison of Beck Depression Inventories-IA and-II in psychiatric outpatients *Journal of Personality Assessment*, 67, 588-597

Beck, A T , Steer, R A , & Brown, G K (1996) Manual for Beck Depression Inventory-II San Antonio, TX Psychological Corporation

Beck,A T , Steer, R A , & Garbin, M G (1986) Applications of the Beck Depression Inventory, In *Assessment of depression* (ed), N, Sartorius & T A Ban, Berlin, Heidelberg, New York, Tokyo Springer-Verlag (123-142)

Beck,A T , Steer, R A , & Garbin, M G. (1988) Psychometric properties of the Beck Depression Inventory Twenty-five years of evaluation *Clinical Psychology Review*, 8, 77-100

Becker, J , & Kleinman, A (1991) *Psychological Aspects of Depression* Hillsdale, New Jersey Lawrence Erlbaum Associates, Inc

Bellack, A S , Hersen, M , & Himmelhoch, J (1981) Social skills training compared with pharmacotherapy and psychotherapy in the treatment of unipolar depression American Journal Psychiatry, 138, 1562-1567

Bempormad, J R (1990) Psychoanalytic therapy of depression In B B Wolman & G Stricker (Ed), *Depressive disorders Facts, theories, and treatment methods* (pp 296-309) New York John Wiley

Bennett, D S , Ambrosini, P J , Bianchi, M, Baarnett, D , Metz, C , & Rabinovich, H (1997) Relationship of Beck Depression Inventory factors to depression among adolescents *Journal of Affect Disorder*, 45, 127- 134

Ben-Porath, Y S , & Tellegen, A (1990) A place for traits in stress research *Psychological Inquiry*, 1, 14-40

Berman, J S & Norton, N C (1985) Does professional training make a therapist more effective? *Psychological Bulletin*, 98, 401-407

Bernet, C Z , Ingram, R E , & Johnson, B R (1993) Self-esteem In C G Costello (Ed), *Symptoms of depression* (pp 141-159), New York Wiley

Bernstein, G A (1991) Comorbidity and severity of anxiety and depressive disorders in a clinic sample *Journal of the American Academy of Child and Adolescent Psychiatry* 30,43-50

Billings, Andrew G , Cronkite, Ruth C , & Moos, Rudolf H (1983) Social-environmental factors in univocal depression Comparisons of depressed patients and no depressed controls *Journal of Abnormal Psychology*, 92, 119-133

bipolar depressive disorder A conceptual framework and five validation studies *Journal of abnormal Psychology, 90, 381-439*

Blatt, S J , Wein, S J , Chevron, E , & Quinlan, D M (1979) *Journal of Abnormal Psychology*, 88, 388-397

Bootzin, R R (1997) Examining the theory and clinical utility of writing about emotional experiences *American Psychological Society*, 8,167-169

Boudewyns, P A & Wilson, A E (1972) Implosive therapy and desensitization therapy using free association in the treatment of inpatients *Journal of Abnormal Psychology,* 79, 259-268

Boyle, G J (1985) Self-report measures of depression Some psychometric considerations *British Journal of Clinical Psychology*, 24, 45-59

Breuer, J & Freud, S (1974) *Studies on hysteria*, translated [from the German] by James and Alix Strachey , edited by James and Alix Strachey , assisted by Angela Richards Harmondsworth Penguin,

Brewin Chris R & Lennard Hayley (1999) *Journal of Traumatic Stress*, 12,

355-361

Bntish Psychologıcal Socıety (2000) *Code of Conduct, Ethıcal Pnncıples & Guıdelınes* Retneved June 06, 2008, from the Bntish Psychologıcal Socıety Web Sıte http //www bps org uk/documents/Code pdf

Brodenck, J E , Junghaenel, D U , & Schwartz, J E (2005) Wntten emotıonal expressıon produces health benefıts ın fibromyalgıa patıents *Psychosomatıc Medıcıne,* 67, 326-334

Brown, G W (1990) What about the real world? Hassles and Rıchard Lazarus *Psychologıcal Inquıry,* 1, 19-22

Brown, G W , Harns, T O , & Hepworth, C (1994) Lıfe events and endogenous depressıon A puzzle reexamıned *Archıve of General Psychıatry,* 51,525-534

Brown, G W , Nı Bhrolchaın, M & Harrıs, T O (1979) Psychotıc and neurotıc depressıon Part 3 Aetıologıcal and background factors *Journal of Affectıve Dısorders,* 1, 195-211

Brown, P (2001) Effectıve treatments for mental ıllness are not beıng used, WHO says *Bntısh Medıcal Journal,* 323, 769

Brown, R A & Lewınsohn, P M (1984) A psychoeducatıonal approach to the treatment of depressıon comparıson of group, ındıvıdual, and mınımal contact procedures *Journal of Consultıng and Clınıcal Psychology,*52, 774-783

Bukharı Retneved August 4, 2008, from the Unıversıty of Southern Calıfornıa Web

sıte http //www USC edu/dept/MSA/fundamentals/hadthsunnah/bukharı/ 073 sbt html#008 073 002

Burns, V E , Carroll, D , Rıng, C , Harrıson, L , K , & Drayson, M (2002) Stress, copıng, and hepatıtıs B antıbody status *Psychosomatıc Medıcıne*, 64, 287-293

Burton, C M , & Kıng, L A (2004) The health benefits of wrıtıng about ıntensely posıtıve experıences *Journal of Research ın Personalıty*, 38, 150-163

Burton, C , & Kıng, L (2008) Effects of (very) brıef wrıtıng on health The two-mınute mıracle *Brıtısh Journal of Health Psychology*, 13, 9-14

Buvhwald, A M & Rudıck-Davıs, D (1993) The symptoms of major depressıon *Journal of Abnormal Psychology*,102, 197-205

Campbell, R SH & Pennebaker, J W (2003) The secret lıfe of pronouns Flexıbılıty ın wrıtıng style and physıcal health *Psychologıcal Scıence*, 14, 60-65

Carroll, B , Fıeldıng, J M , & Blashkı, T G (1973) Depressıon ratıng scales A crıtıcal revıew *Archıves of General Psychıatry*, 28, 361-366

Chafe, W L (1982) Integratıon and ıvolvement ın speakıng, wrıtıng, and oral lıterature In D Tannen (Ed,), *Spoken and wrıtten language* Explorıng moralıty and lıteracy (pp, 35-54) Norwood, NJ Ablex Publıshıng Corporatıon

Charney, D S , Nelson, J C , & Quınlan, D M (1981) Personalıty traıts and dısorders ın depressıon *Amerıcan Journal of Psychıatry*, 138, 1601–1604

Choquette, K A Assessıng depressıon ın alcoholıcs wıth the BDI, SCL-90R, and DIS Crıterıa *Journal of Substance Abuse*, 6, 295-304

Chrıstensen, A J , Edwards, D L , Wıebe, J S , Benotsch, E G , McKelvey,

L , Andrews, M , & Lubaroff, D M (1996) Effects of verbal self-disclosure on natural kıller cell actıvıty Moderatıng ınfluence of cynıcal hostılıty *Psychosomatıc Medıcıne* 58, 150-155

Chung, C , & Pennebaker, J (2008) Varıatıons ın the spacıng of expressıve wrıtıng sessıons *Brıtısh Journal of Health Psychology*, 13, 15-21

CIA-The World Factbook (2008) *Lıbya* Retrıeved July 30, 2008, from the Central Intellıgence Agency web sıte Https // www cıa gov/lıbrary/publıcatıons/the-world-factbook/geos/ly html

Clark, A & Frıedman, M J (1983) Factor structure and dıscrımınant valıdıty of the SCL-90 ın a veteran psychıatrıc populatıon *Journal of Personalıty Assessment*, 47, 396-404

Clark, D M (1990) Cognıtıve therapy for depressıon and anxıety Is ıt better than drug treatment ın the long term In Keıth Hawton & Phılıp (ed), *Dılemmas and dıfficultıes ın the management of psychıatrıc patıents* .(pp 55-64) Oxford Oxford Unıversıty Press

Clark, L F (1993) Stress and the cognıtıve-conversatıonal benefıts of socıal ınteractıon *Journal of Socıal and Clınıcal Psychology*, 12, 25-55

Cohen, J (1988) *Statıstıcal power analysıs for the behavıoural scıences* (2nd ed) Hıllsdale, NJ Lawrence Erlbaum Assocıates

Cohen, J , Sander, L , Slavın, O & Lumley, M (2008) Dıfferent methods of sıngle-sessıon dısclosure What works for whom? *Brıtısh Journal of Health Psychology*, 13, 23–26

Cohen, S & Wıllıamson, G M (1991) Stress and ınfectıous dısease ın humans *Psychologıcal Bulletın*, 109, 5-24

Cohen, S , Tyrrell, D A J , & Smıth, A P (1991) Psychologıcal stress and

susceptibility to the common cold *New England Journal of Medicine*, 325, 606-612

Copeland, J R M (1984) Reactive and endogenous depressive illness and five-year outcome *Journal of Affective Disorders 6, 153-162*

Corter, A , & Petrie, K (2008) Expressive writing in context The effects of a confessional setting and delivery of instructions on participant experience and language in writing *British Journal of Health Psychology*, 13, 27-30

Costello, C G (1993) *Symptoms of depression* New York Wiley

Coyne, J C , Metalsky, C , & Lavelle, T L (1980) Learned helplessness as experimenter-induced failure and its alleviation with attentional redeployment *Journal of Abnormal Psychology*,89, 3350-357

Cramer, D (1992) *Personality and psychotherapy Theory, practice and research* Buckingham Open University Press

Cronbach, L J (1990) *Essential of psychological testing* (2nd ed),New York, London Harper, & Row

Crook, T , Raskin, A , & Eliot, J (1981) Parent-Child Relationships and Adult Depression *Child Development*,52, 950-957

Crook,T & Eliot, J (1980) Parental death during childhood and adult depression A critical review of the literature *Psychological Bulletin*, 87,252-259

de Moor, C , Sterner, J , Hall, M , Warneke, C , Gilani, Z , Amato, R , & Cohen, L (2002) A pilot study of the effects of expressive writing on psychological and behavioral adjustment in patients enrolled in a phase II trial of vaccine therapy for metastatic renal cell carcinoma *Health*

Psychology, 21, 615–619

de Moor, C , Warneke, C , Sterner, J , Gılanı, Z , Amato, R J , & Cohen, L (2001) Emotıonal expressıon wrıtıng program for cancer patıents *Psychosomatıc Medıcıne*, 63, 91-190,1143

DeLongıs, A , Coyne, J C , Dakof, G , Folkmanm, S , & Lazarus, R S (1982) Relatıonshıp of daıly hassles, uplıfts, and major lıfe events to health status *Health Psychology*, 1, 119–136

Depue, R A , Krauss, S , Spoont, M R , & Arbısı, P (1989) General Behavıor Inventory Identıfıcatıon of unıpolar and bıpolar affectıve condıtıons ın a nonclınıcal unıversıty populatıon *Journal of Abnormal Psychology*, 98, 117-126

Depue, R A , Slater, J F , Wolfstetter-Kausch, H , Kleın, D , Goplerud, E , & Farr, D (1981) A Behavıoral paradıgm for ıdentıfyıng persons at rısk for bıpolar depressıve dısorder A conceptual framework and five valıdatıon studıes *Journal of abnormal Psychology, 90, 381-439*

Dobson, K S , & Shaw, B F (1986) Cognıtıve assessment wıth major depressıve dısorders *Cognıtıve Therapy and Research*, 10, 13 29

Dobson, K S , (1989) A meta-analysıs of the effıcacy of cognıtıve therapy for depressıon *Journal of Consultıng and Clınıcal Psychology* 57,414–419

Donelly, D A , & Murray, E J (1991) Cognıtıve and emotıonal changes ın wrıtten essays and therapy ınterviews *Journal of Socıal and Clınıcal Psychology*, 10, 334-350

Downıng-Orr, K (1998) *Rethınkıng depressıon, why current treatments faıl New York*, Plenum Press

Durlak, J A (1979) Comparative effectiveness of paraprofessional and professional helpers *Psychological Bulletin*, 86, 80-92

Eaves, G , & Rush, A J (1984) Cognitive patterns in symptomaic and remitted unipolar major depression *Journal of Abnormal Psychology*, 93, 31-40

Eaves, L J (1995) Stressful life events, genetic liability, and onset of an episode of major depression in women *The American Journal of Psychiatric*,152, 833-842

Elwood, R W (1993) The clinical utility of the MMPI-2 in diagnosing unipolar depression among male alcoholics *Journal of personality assessment*, 60, 511-521

Emmelkamp, P G (1974) Self-observation versus flooding in the treatment of agoraphobia *Behaviour Research and Therapy*, 12, 229-237

Emmelkamp,P M G (2004) Behavior therapy with adults In Mtchael J Lamberet (Ed), *Bergin & Garfield`s handbook of psychotherapy and behavior change* (5th ed (393-449) United States of America John Willey & Sons, Inc

Endicott, J (1986) Schedule for Affective Disorders and Schizophrenia, Regular and change versions In N, Sartorius & T A Ban (Ed), *Assessment of depression* (316-323) Berlin, Heidelberg, New York, Tokyo Springer-Verlag

Ensel, W M (1986) Measuring depression The CES-D scale In Lin, N , Dean, A , & Ensel, W (ed), *Social support, life events, and depression* United Kingdom, London Academic Press, INC

Esterling, B A , Antoni, M H , Fletcher, M , Margulies, S , & Schneideman, N

(1994) Emotional disclosure through writing or speaking modulates latent Epstein-Barr virus antibody titers *Journal of Consulting and Clinical Psychology*, 62, 130-140

Esterling, B A , Antoni, M H , Kumar, M , & Schneiderman, N (1990) Emotional repression, stress disclosur responses and Epstein-Barr viral capsid antigen titers *Psychosomatic Medicine,* 52, 397-410

Esterling, B A , L'Abate, L ,Murray, E J , & Pennebaker, J W (1999) Empirical foundation for writing in prevention and psychotherapy mental and physical health outcomes, *Clinical Psychology Review,* 19,79-96

Everaerd, W T, A M , Rijken, H M , & Emmelkamp, P G (1973) A comparison of 'flooding' and successive 'approximation' in the treatment of agoraphobia *Behaviour Research and Therapy,* 11, 105-117

Farmer, R , & Nelson-Gray, R (1991) Personality disorders and depression Hypothetical relations empirical findings, and methodological considerations *Clinical Psychology Review,* 10, 453-476

Feather, N T , & Barber, J G (1983) Depressive reactions and unemployment *Journal of Abnormal Psychology*, 92, 185–195

Feighnor, P F , & Boyer, W F (1991) *The diagnosis of depression* Chichester Wiley

Fenichel, O (1946) *The psychoanalytic theory of neurosis* London Routledge & Kegan Paul

Ferna´ndez, I , & Pa ez, D (2008) The benefits of expressive writing after the Madrid terrorist attack Implications for emotional activation and positive

affect *Bntish Journal of Health Psychology*, 13, 31-34

Ferster, C B (1973) A functional analysis of depression *American Psychologist*, 28,857-870

Foa, E. B , & Kozak, M J (1986) Emotional processing of fear exposure to corrective information *Psychological Bulletin*, 99, 20-35

Francis, M E , & Pennebaker, J W (1992) Putting stress into words The impact of writing on physiological, absentee, and self-reported emotional well-being measures *American Journal of Health Promotion*, 6, 280-287

Frank, E , Anderson, B , Reynolds, C F , Ritenour, A , & Kupfer, D J (1994) Life events and the Research Diagnostic Criteria endogenous subtype A confirmation of the distinction using the Bedford College methods *Archives General Psychiatry*,51, 519-524

Frattaroli, J (2006) Experimental disclosure and its moderators a meta-analysis *Psychological Bulletin,* 132, 823-865

Freden, L (1982) *Psychological aspects of depression* Chichester, New York, Brisbane, Toronto, Singapore John Wiley & Sons Ltd

Free ML, & Oei TPS (1989) Biological and psychological processes in the treatment and maintenance of depression *Clinical Psychology Review*, 9,653-688

Friedman, R C , Aronoff, M S , Clarkin, J F , Corn, R , & Hurt, S W (1983) History of suicidal behavior in depressed borderline inpatients *American Journal of Psychiatry,* 140, 1023–1026

Frijda, N H (1986) *The emotions* Cambridge, England Cambridge University Press

Frisine, P G, Borod, J C , & Lepore, S , J (2004) A meta-analysis of the effects of written emotional disclosure on the health outcomes in clinical populations *Journal of Nervous and Mental Disease*, 192, 629-634

Fuch, C Z , & Rehm, L P (1977) A s4elf-control behavior therapy program for depression. *Journal of Consulting and Clinical Psychology*, 45,206-215

G L (2003) Prediction of depression in the postpartum period

Gerlsma, C , Emmelkamp, P M C , & Arrindell, W A (1990) Anxiety, Depression, and perception of early parenting A meta-analysis *Clinical Psychology Review*, 10, 251-277

Ghubash, R , Daradkeh, T K , AL Aaseri, K S , AL Bloushi, N B , & AL Daheri, A M (2000) The performance of the Center for Epidemiologic Study Depression Scale (CES-D) in an Arab female community *The International Journal of Social Psychiatry*,46, 241-249

Gidron, Y, Peri, T, Connolly, J F, & Shalev, A Y (1996) Written disclosure in posttraumatic stress disorder Is it beneficial for the patient? *Journal of Nervous & Mental Disease,* 184, 505-507

Gilbert, P (1984) *Depression from Psychology to Brain State* Chancy House, London Erlbaum Associates, Inc

Gilbert, P (1992) Depression the evolution of powerlessness U K Lawrence Erlbaum Associates, Ltd

Gilbert, P (1984) *Depression From psychology to brain state* London Lawrence Erlbaum Associates Ltd

Gloaguen, V , Cottraux,J , Cucherat, M , & Blackburn, L-M (1998) A meta-analysis of the effects of cognitive therapy in depressed patients *Journal of Affective Disorders*, 49,59–72

Gluckman SJ, Dvorak VC, & MacGregor R (1977) Host defenses during prolonged alcohol consumption in a controlled environment *Archives of internal Medicine*, 137 1539–43

Goldberg, J , Shaw, B F , & Segal, Z (1987) Concurrent validity of the Millon Clinical Multiaxial Inventory Depression Scales *Journal of Consulting and Clinical Psychology*, 55, 785–787

Gortner, Eva-Maria , Rude Stephanie , & Pennebaker, Jams (2006) Benefits of expressive writing in lowering rumination and depressive symptoms *Behavior therapy*, 37, 292-303

Gotlib, I H (1984) Depression and general psychopathology in university students *Journal of Abnormal Psychology*, 93, 19-30

Gotlib, I H , & Hammen, C L ,(1992) *Psychological aspects of depression Toward a cognitive-interpersonal integration Chichester*, New York, Brisbane, Toronto, & Singapore John Wiley & Sons

Graf, M , Gaudiano, B , & Geller, P (2008) Written emotional disclosure A controlled study of the benefits of expressive writing homework in outpatient psychotherapy Psychotherapy Research, 18, 389 -399

Graybeal, A , Seagal, J D , & Pennebaker, J W (2002) The role of story-making in disclosur writing The psychometrics of narrative *Psychology and Health*, 17, 571-581

Greenberg, M A , & Stone, A A (1992) Emotional disclosure about traumas and its relation to health effects of previous disclosure and trauma severity *Journal of Personality & Social Psychology*, 63, 75-84

Greenberg, M A , Wortman, C B , & Stone, A A (1996) Emotional expression and physical health Revising traumatic memories or

fostering self-regulation *Journal of Personality and Social Psychology* 71, 588-602

Grinker, R R & Spiegel, J P (1978) *Men under stress* Philadelphia Blakiston

Hale, A S (1997) ABC of mental health depression *British Medical Journal*,315, 43-46

Hall, C S , & Lindzey, G (1957) *Theories of personality* New York John Willey & Sons, INC

Hamilton, E W , & Abramson, L Y (1983) Cognitive patterns and major depressive disorder A longitudinal study in a hospital setting *Journal of Abnormal Psychology*, 92,173-184

Hamilton, V (1982) Cognition and stress An information processing model In L , Goldberger & S Breznitz (Eds), *Handbook of stress Theoretical and clinical aspects* (pp 105-120) New York The free Press

Hammen, C (1997) *Depression* East Sussex, UK Psychology Press Ltd, a member of the Taylor & Francis group

Hammen, C L , Ellicott, A , Gitlin, M , & Jamison, K R (1989) Sociotropy/Autonomy and vulnerability to specific life events in patients with unipolar depression and bipolar disorders *Journal of Abnormal Psychology*, 98, 154- 160

Hammen, C L , Marks, T , Mayol, A , & deMayo, R (1985) Depressive self-schemas, life stress and vulnerability to depression *Journal of Abnormal Psychology*, 94, 308-319

Hammen, C (1988) Depression and cognition about personal stressful life events In Lauren, B Alloy (Ed), *Cognitive processes*, (pp 77-108),

New York, London The Guilford Press

Hammen, C , Mayol, A , deMayo, R , & Marks, T (1986) Initial symptom levels and the life-event-depression relationship *Journal of Abnormal Psychology,* 95, 114–122

Hammilton, M (1986) The Hamilton Rating Scale for Depression. In N, Sartorius & T A Ban (Ed), *Assessment of depression* (143-152) Berlin, Heidelberg, New York, Tokyo Springer-Verlag

Harkness, K , & Monroe, S M ,(2006) Sever melancholic depression is more vulnerable than non-melancholic depression to minor precipitating life events *Journal of Affective Disorders,* 91, 257-263

Harris, A (2006) Does Expressive Writing Reduce Health Care Utilization? A Meta-Analysis of Randomized Trials *Journal of Consulting and Clinical Psychology,* 74, 243–252

Hoberman, H M (1990) Behavioral treatment for unipolar depression In Benjamin B Wolman & George Stricker (Ed), *Depressive symptoms Facts, theories, and treatment methods* (pp 310-367) Canda John Wiley & Sons, Inc

Hoberman, H M , Lewinsohn, P M , & Tilson, M (1988) Group treatment of depression Individual rredictors of outcome Journal of Consulting and Clinical Psychology, 56, 393–398

Holahan, C J , & Moos, R H (1991) Life stressors, personal and social resources, and depression A 4-year structural model *Journal of Abnormal Psychology,* 100, 31–38

Hollon, S D , Kendall, P C , & Lumry, A (1986) Specificity of depressotypic cognitions in clinical depression *Journal of Abnormal Psychology* 95,

52-59

Holmes, S J & Robins, L N (1987) The influence of childhood disciplinary experience on the development of alcoholism and depression *Journal of Child Psychology and Psychiatry,* 28,399-415

Honos-Webb, L , Enders, L M , Shaikh, A , Harrick, E A , Lani, J A , Knobloch-Fedders, L M , Surko, M & , Stiles, W M (2002) Rewards and risks of exploring negative emotion An assimilation model account In Fussell S R *The verbal communication of emotions Interdisciplinary perspective,* (pp 231-251) Lawerence Erlbaum Associates Mahwah New Jersey

Horowitz, M J (1982) Stress response syndromes and their treatment In L Goldberger & S Breznitz (Eds), *Handbook of stress Theoretical and clinical aspects* (pp 711-732) New York The free Press

Horwarth, E , Johnson, J, Klerman, G L & Weissman, M M (1992) Depressive symptoms as relative and attributable risk factors for first-onset major depression *Archives of General Psychiatry,* 49, 817-823

Horwarth, E , Johnson, J, Klerman, G L & Weissman, M M (1994) What are the public health implications of subclinical depressive symptoms? *Psychiatric Quarterly,* 65, 323-337

Howitt, D & Cramer, D (2008) *Introduction to SPSS in psychology For version 16 and earlier* (4th ed) Harlow Pearson

Iqbal, S & Bassett, M (2008) Evaluation of perceived usefulness of activity scheduling in an inpatient depression group *Journal of Psychiatric and Mental Health Nursing* ,15, 393-398

Islam Awareness (2008) *Dua (supplication)* Retrieved August 31, 2008, from

Islam Awareness web site http //www net/Dua/best html

Jacobson, E (1972) *Depression comparative studies of normal, neurotic, and psychotic conditions* (2nd ed). New York International Universities Press

Jacobson, S , Fasman, J , & DiMascio, A (1975) Deprivation in the childhood of depressed women *Journal of Nervous and Mental Disease,* 160, 5-14

Jennifer, A , & Stanton, A (2008) Writing about emotions versus goals Effects on hostility and medical care utilization moderated by emotional approach coping processes *British Journal of Health Psychology*, 13, 35-38

Kacewicz, Ewa , Richard, B , Slatcher , & James, W Pennebaker (in press)

Karoly, P , & Ruehiman, L (1983). Affective meaning and depression A semantic differential analysis *Cognitive Therapy and Research,*7, 41-50

keller, M B , Lavori, P W , Mueller, T I , Endicott, j , Coryell, W , Hirschfeld, R M A , & Shea, T (1992) Time to recovery, chronicity, and levels of psychopathology in major depression A 5-year prospective follow-up of 431 subjects *Archives of General Psychiatry*,49,809-816

Blazer, D G , Kessler, R C , McGonagle, K A , & Swartz, M S (1994) The prevalence and distribution of major depression in a national community sample The national comorbidity survey *American Journal of Psychiatry*, 151, 979-986

Kelley, J E , Lumley, M A , & Leisen, J C (1997) Health effects of emotional disclosure in rheumatoid arthritis patients *Health Psychology*, 16, 331-

340

Kelly, A E & McKillop, K J (1996) Consequences of revealing personal secrets *Psychological Bulletin,* 120, 450-465

Kendler, K S , Kessler, R C , Walters, E E , MacLean, C Neale, M C , Heath, A C ,

Kennedy-Moore, E & Watson, J C (2001) How and when does emotional expression help? *Review of General Psychology*, 5, 187-212

Kim, M T, Han, H , Shin, H S , Kim, K B , & Lee, H B (1997) Social context, coping strategies, and depression symptoms *Journal of Personality and Social Psychology* 72, 918-928

Kimerling, R , & Calhoun, K S (1994) Somatic symptoms, social support, and treatment seeking among sexual assault victims *Journal of Consulting and Clinical Psychology,* 62, 333-340

King, L A (2001) The health benefits of writing about life goals *Personality and Social Psychology Bulletin,* 27, 798-807

King, L A (2001) The health benefits of writing about life goals *Personality and Social Psychology Bulletin*, 27, 798-807

King, L A , & Miner, K N (2000) Writing about the perceived benefits of traumatic events implications for physical health *Personality and Social Psychology Bulletin*, 26, 220-230

Kirkby, R , Al Saif, A , & Mohamed, G (2005) Validation of an Arabic translation of the Zung Self-Rating Depression Scale *Annals of Saudi Medicine*,25,205-208

Klein, D N , & Depue, R A (1984) Continued impairment in persons at risk for bipolar affective disorder Results of a 19-month follow-up study

Journal of Abnormal Psychology, 93, 345-347

Klein, D N , & Miller, G A (1993) Depressive personality in nonclinical subjects *American Journal of Psychiatry,* 150, 1718-1724

Klein, K , & Boals, A (2001) Expressive writing can increase working memory capacity. *Journal of Experimental Psychology General,* 130, 520–533.

Kloss, N S , & Lisman, S A (2000) An exposure-based examination of the effects of written emotional disclosure *British Journal of Health Psychology,* 7, 31-46

Kornblith, S J , Rehm, L P, O'Hara, M W , & Lamparski, D M (1983) The contribution of self-reinforcement training and behavioral assignments to the efficacy of self-control therapy for depression *Cognitive Therapy and Research,*7, 1983,499-528

Kovacs, M (1989) Depression in children and adolescents *American Psychologist,* 44, 209-215

Krantz, Susan & Hammen, Constance (1979) Assessment of cognitive bias in depression *Journal of Abnormal Psychology,* 88, 611-619

Krefetz, D G ,Steer, R A , Gulab, N A , & Beck, A T (2002) Convergent validity of the Beck Depression Inventory-II with the Reynolds Adolescent Depression Scale in psychiatric inpatients *Journal of Personality Assessment,* 78, 451 – 460

Kunkle, A W (2000) *Coping with emotional distress effects of disclosure mode on cognitive, affective, and health outcomes* Unpublished doctoral dissertation, Purdue University, United Stats

Kurtz, R R , & Grummon, D L (1972) Different approach to the measurement of therapist empathy and their relationship to therapy outcomes

Journal of Consultıng and Clınıcal Psychology, 39, 106-115

L`Abate, L (1991) The use of wrıtıng ın psychotherapy *Amerıcan Journal of Psychotherapy,* 45, 87-98

L`abate, L , & Kern, R (2003) Workbooks Tools for the expressıve wrıtıng paradıgm In S J Lepore & J M Smyth (Eds), *The wrıtıng cure* How expressıve wrıtıng promotes health and emotıonal well beıng (pp 239-255) Washngton, DC Amerıcan Psychologıcal Assocıatıon

Lakey, B , & Ross, L (1994) Dependency and self-crıtıcısm as moderators of ınterpersonal and achıevement stress The role of ınıtıal dysphorıa *Cognıtıve Therapy and Research,* 18,581-599

Lakoff, & Robın T. (1982) Some of my favorıte wrıters are The mınglıng of oral and lıterate strategıes ın wrıtten communıcatıon In D Tannen (Ed,), *Spoken and wrıtten language Explorıng moralıty and lıteracy* (pp, 239-260) Norwood, NJ Ablex Publıshıng Corporatıon

Lambert, M , & Ogles, B (2004) The efficacy and effectıveness of psychotherapy In Mtchael J Lamberet (Ed), Bergın & Garfıeld`s *handbook of psychotherapy and behavıor change* (5th ed, pp 393-449) New York John Wılley & Sons, Inc

Lang, Schoutrop, Schrıeken, & Van de Ven (2003) Interapy A model for therapeutıc wrıtın through the ınternet In S J Lepore & J M Smyth (Eds), *The wrıtıng cure How expressıve wrıtıng promotes health and emotıonal well beıng* (pp 215- 237) Washngton, DC Amerıcan Psychologıcal Assocıatıon

Last Sermon Retrıeved August 31, 2008,from Fordan Unıversıty web sıte http //www fordham edu/halsall/source/muhm-sermom html

Lazarus, R S & Folkman, S (1991) The concept of coping In Alan Monatand & Richard, S Lazarus (Ed,) *Stress and coping*(pp 189-227) *An anthology* New York Columbia University Press

Lazarus,R S (1991) *Emotion and adaptation* New York Oxford University Press

Leckman, J F , Weissman, M M , Merikangas, K R , Pauls, D L , & Prusoff, B A (1983) Panic disorder and major depression Increased risk of major depression, alcoholism, panic, and phobic disorders in families of depressed probands with panic disorder *Archives of General Psychiatry*, 40, 1055–1060

Lepore, S J (1997) Expressive writing moderates the relation between intrusive thoughts and depressive symptoms, *Journal of Personality and Social Psychology*, 73, 1030-1037

Lepore, S J , & Greenberg, M A (2002) Mending broken hearts Effects of expressive writing on mood, cognitive processing, social adjustment and health following a relationship breakup *Psychology and Health*, 17, 547-560

Lepore, S J , Fernandez-Berrocal, P , Ragan, J , & Ramos, N (2004) It`s not that bad social challenges to emotional disclosure enhance adjustment to stress *Anxiety, Stress, and Coping*, 17, 341-361

Lepore, S J , Greenberg, M A , & Smyth, J M (2003) Expressive writing and health Self-regulation of emotion-related experience, physiology, and behavior In S J Lepore & J M Smyth (Eds), *The writing cure* How expressive writing promotes health and emotional well being (pp 99-118) Washngton, DC American Psychological Association

Lepore, S J , Ragan, J D , & Jones, S (2000) Talking facilitates cognitive-emotional processes of adaptation acute stressor *Journal of personality and Social psychology*, 78, 499-508

Lewinsohn, P M , & Graf, M (1973) Pleasant activities and depression *Journal of Consulting and Clinical Psychology,* 41,261-268

Lewinsohn, P M , & Libet, J (1972) Pleasant events, activity schedules, and depression *Journal of Abnormal Psychology,*79, 291-295

Lewinsohn, P M , & Teri, L (1982) Selection of depressed and nondepressed subjects on the basis of self-report data *Journal of Consulting and Clinical Psychology*, 50, 590-591

Lewinsohn, P M , Larson, D W , & Munoz, R F (1982) The measurement of expectancies and other cognition in depressed individuals *Cognitive Therapy and Research*, 6, 437-446

Lewinsohn, P M , Youngren, M A , & Grosscup, S J (1979) Reinforcement and depression In R A Depue (Ed), *The psychobiology of the depressive disorders Implications for the effects of stress* (pp, 291-315) New York Academic Press

Lewinsohn, P , Hoberman, H , & Rosenbaum, M (1988) A prospective study of risk factors for unipolar depression *Journal of Abnormal Psychology,* 97,251–264

Lewis, R J , Derlega, V J , Clarke, E G , Kuang, J C , Jacobs, A M , & McElligott, M D (2005) An expressive writing intervention to cope with lesbian-related stress The moderating effects of openness about sexual orientation *Psychology of Women Quarterly*, 29, 149-157

Libet, J & Lewinsohn, P M , (1973) The concept of social skill with special

reference to the behavior of depressed persons *Journal of Consulting and Clinical Psychology*,40, 304-312

Lloyd, C (1980a) Life events and depressive disorder reviewed I Events as precipitating factors *Archives of General Psychiatry, 37*, 541-548

Lloyd, C (1980b) Life events and depressive disorder reviewed II Events as precipitating factors *Archives of General Psychiatry, 37*, 529-535

Lobitz, W C , & Post, R D (1979) Parameters of Self-Reinforcement and Depression *Journal of Abnormal Psychology*, 88, 33-41

Lubin, B , & Levitt, E E (1979) Norms for the Depression Adjective Check Lists age group and sex *Journal of Consulting and Clinical Psychology,* 47, 192

Lumley, M A , & Provenzano, K M (2003) Stress management through written emotional disclosure improves academic performance among college students with physical symptoms *Journal of Educational Psychology*, 95, 641-649

Lutgendorf, S K , Antoni, M H , Kumar, M , & Schneiderman N (1994) Changes in cognitive coping strategies predict EBV- antibody titer change following a stressor disclosure induction *Journal of Psychosomatic Research*, 38, 63-78

Lyubomirsky, S , & Nolen-Hoeksema, S (1995) Effects of self-focused rumination on negative thinking and interpersonal problem solving *Journal of Personality and Social Psychology*, 69, 176–190

Lyubomirsky, S , Sousa, L , & Dicherhoof, A (2006) The costs and benefits of writing, talking, and thinking *Journal of Personality and Social Psychology*, 90, 692-708

MaccPhıllamy, D J & Lewınsohn, P M (1974) Depressıon as a functıon of levels of desıred and obtaıned pleasurel *Journal of Abnormal Psychology,* 83, 651-657

MacKenzıe JS, MacKenzıe IH, & Holt PG The effect of cıgarette smokıng on susceptıbılıty to epıdemıc ınfluenza and on serologıcal responses to lıve attenuated and kılled subunıt ınfluenza vaccınes *The Journal of Hygıene,* 1976, 77 409–17

Mackenzıe, C , Wıprzycka, U , Lynn Hasher, L , & Goldsteın, D (2008) Seeıng the glass half full Optımıstıc expressıve wrıtıng ımproves mental health among chronıcally stressed caregıvers *Brıtısh Journal of Health Psychology*, 13, 73–76

Magaı, C , Consedıne, N , Fıorı, K , & Kıng, A (2009) Sharıng the good, sharıng the bad The benefıts of emotıonal self-dısclosure among mıddle-aged and older adults *Journal of Agıng and Health,* 21, 286-313

Maȷ, M & Sartorıus, N (2002) *Depressıve dısorders* (2ed) Chıchester, West Sussex, England John Wıley & Sons Ltd

Mandler, G (1982) Stress and thought processes In L , Goldberger & S Breznıtz (Eds), *Handbook of stress Theoretıcal and clınıcal aspects* (pp 88-104) New York The free Press

Mayer, J M (1977) Assessment of depressıon In Paul McReynolds, (Ed), *Advances ın psychologıcal assessment* (vol 4), San Erancısco, Washıngton, London, Jossey-Bass

Mazmanıan, D , Mendonca, J D , Holden, R R , & Duffon, B (1989) Psychopathology and response styles ın the SCL-90 responses of acutely dıstressed persons *Journal of Psychopathology and Behavıoral*

Assessment, 9, 135-148

McLean, P D & Hakstian, A R (1979) Clinical depression Comparative efficacy of outpatient treatments *Journal of Consulting and Clinical Psychology*47, 818-836

McLean, P D & Hakstian, A R (1990) Relative endurance of unipolar depression treatment effects Longitudinal follow-up *Journal of Consulting and Clinical Psychology*,58, 482–488

Meads, C, Lyons, A , & Carroll, D (2003) The impact of the emotional disclosure intervention on physical and psychological health- a systematic review Technical Report 43 (ISBN 0704424347), West Midlands Health Technology Assessment Collaboration, University of Birmingham, UK

Mendels, J (1970) *Concept of depression* New York, London, Sydney, Toronto John Wiley & Sons, Inc

Mendelson, M (1990) Psychoanalytic views on depression In Benjamin, B Wolman & George Stricker (Ed), *Depressive disorders Facts, theories, & treatment* (pp 22-37) (Ed), Canada John Wiley & Sons, Inc

Middendorp, H & Geenen, R (2008) Poor cognitive-emotional processing may impede the outcome of emotional disclosure interventions *British Journal of Health Psychology,* 13, 49–52

Miller, I V , & Norman, W H (1979) Learned helplessness in humans A review and attribution-theory model *Psychological Bulletin*, 86,93-118

Miller, R C , & Berman, J S (1983) The efficacy of cognitive behavior therapies A quantitative review of the research evidence *Psychological Bulletin*, 94, 39–53

Moran, P W , & Lambert, M J (1983) A review of current assessment tools for monitoring changes in depression In M J Lambert, E R Christensen, & S S DeJulio (Ed), *The assessment of psychotherapy outcomes* (pp, 304-355) New York John Wiley

Morgan, C D , Wiederman, M W , & Magnus, R D (1998) Discriminant validity of the SCL-90 dimensions of anxiety and depression *Assessment*, 5,197-201

Murray, C J L , & Lopez, A D (1997) Alternative projections of mortality and disability by cause 1990–2020 Global Burden of Disease Study *The Lancet*,349,1498-1504

Murray, E J , & Segal D L (1994) Emotional processing in vocal and written expression of feelings about traumatic experiences *Journal of Traumatic Stress*, 7, 391-405

Murray, E J , Lamnin, A D , & Carver, C S (1989) Emotional expression in written essays and psychotherapy *Journal of Social and Clinical Psychology*, 8, 414-429

Mutmainaa (2006) Dua Retrieved August 31, 2008, from Geocities web site http //www geocities com/mutmainaa/dua html

Mutmainaa (2007) *Du`as for forgiveness* Retrieved August 31, 2008, from Geocities web site http //www geocities com/mutmainaa/dual/forgiveness html

Myers, J K , & Weissman, M M (1980) Use of self-report symptom scale to detect depression in a community sample *American Journal of Psychiatry*, 137, 1081-1084

Nezu, A M (1987) A problem-solving formulation of depression A literature

review and proposal *Clinical Psychology Review, 7,*121-144,

Nezu, A M (1986) Efficacy of a social problem-solving therapy approach for unipolar depression *Journal of Consulting and Clinical Psychology*, 54, 196–202

Nezu, A M , & Perri, M G (1989) Social problem-solving therapy for unipolar depression An initial dismantling investigation *Journal of consulting and Clinical Psychology*, 57, 1989, 408–413

Nezu, A M , & Ronan, G F (1985) Life stress, current problems, problem solving, and depressive symptoms An integrative model *Journal of Consulting and Clinical Psychology*, 53, 693–697

Nezu, A M , Ronan, G F , Meadows, E A , & McClure, K S (2000) *Practitioner`s guide to empirically based measures of depression* New York, Boston, Dordrecgt, London, Moscow Kluwer Academic / Plenum

Nietzel, M T & Harris, M J (1990) Relationship of dependency and achievement /autonomy to depression *Clinical psychology Review*,10, 279-297

NIMH/NH Consensus Development Conference Statement (1985) *American Journal of Psychiatry,* 142, 469-475

Olinger, L J , Kuiper, N A , & Shaw, B F (t987) Dysfunctional attitudes and stressful life events An interactive model of depression *Cognitive Therapy and Research*, 11, 25-40

Pantchenko, T , Lawson, M , & Joyce, M R (2003) Verbal and non-verbal disclosure of recalled negative experiences Relation to well-being *Psychology and Psychotherapy Theory, Research and Practice*, 76, 251-265

Park, C L & Blumberg, C J (2002) Dısclosıng trauma through wrıtıng testıng the meanıng-makıng hypothesıs *Cognıtıve Therapy and Research*, 26, 597–616

Parker, G (1981) Parental reports of depressıve An ınvestıgatıon of several explanatıons *Journal of Affectıve Dısorders*, 3 131-140

Paykel, E S (1979) Recent lıfe events ın the development of the depressıve dısorders Implıcatıons for the effects of stress In R A Depue (Ed), *The psychobıology of the depressıve dısorders* (pp 245-262), New York Academıc Press

Paykel, E S (2003) Lıfe events and affectıve dısorders *Acta Neurologıca Scandınavıca,* 108, 61-66

Paykel, E S , & Norton, R W (1986) Self-report and clınıcal ınterview ın the assessment of depressıon In N, Sartorıus & T A Ban (Eds), *Assessment of depressıon* Berlın,(pp 367-376) Heıdelberg, New York, Tokyo Sprınger-Verlag

Pennebaker , J W , & O'Heeron, , R C (1984) Confıdıng ın others and ıllness among spouses of suıcıde and accıdental death vıctıms *Journal of Abnormal Psychology*, 93, 473-476

Pennebaker, J W , Mayne, T J , & Francıs, M E (1997) Lınguıstıc predıctors of adaptıve bereavement *Journal of Personalıty and Socıal Psychology*, 72, 864-871

Pennebaker, J W (1985) Traumatıc experıence and psychosomatıc dısease Explorıng the roles of behavıor ınhıbıtıon, obessıon, and confıdıng *Canadıan Psychology*, 26, 82-95

Pennebaker, J W (1993) Puttıng stress ınto words Health, lınguıstıc, and

therapeutic implications *Behavior Research and Therapy,* 31, 539-548

Pennebaker, J W (1997) Writing about emotional experiences as a therapeutic process *Psychological Science*, 8, 162-166

Pennebaker, J W (2000) *Writing and health Some practical advice* Retrieved June 4, 2008, from the University of Texas at Austin Web site Http // homepage Psy utexas edu/HomePage/Faculty/Pennebaker/home2000/Writingand Health html

Pennebaker, J W (2003) Writing, social processes, and psychotherapy from past to future In S J Lepore & J M Smyth (Eds), *The writing cure How expressive writing promotes health and emotional well being* (pp 281-291) Washngton, DC American Psychological Association

Pennebaker, J W Barger, S D , & Tiebout, J (1989) Disclosure of trauma and health among holocaust survivors *Psychosomatic Medicine*, 51, 577-589

Pennebaker, J W , & Beall, S K (1986) Confronting a traumatic event Toward an understanding of inhibition and disease *Journal of Abnormal Psychology* 95, 274-281

Pennebaker, J W , & Francis, M E (1996) Cognitive, emotional, and language processes in disclosure *Cognitive and Emotion* 10, 601-626

Pennebaker, J W , & Seagle, J D (1999) The health benefits of narrative *Journal of Clinical Psychology* 55, 1243-1254

Pennebaker, J W , & Susman, J (1988) Disclosure of traumas and psychosomatic processes *Social Science & Medicine* 26, 327-332

Pennebaker, J W , Colder, M , & Sharp, L K (1990) Accelerating the coping

process *Journal of Personalıty and Socıal Psychology* 58, 528-537

Pennebaker, J W , Hughes, C F , & O'Heeron, R C (1987) The psychophysıology of confessıon Lınkıng ınhıbıtory and psychosomatıc processes *Journal of Personalıty and socıal psychology* 52, 781-793

Pennebaker, J W , Kıecolt-Glaser, J , &Glaser, R (1988) Dısclosure of traumas and ımmune functıon Health ımplıcatıon for psychotherapy *Journal of Consultıng and Clınıcal Psychology* 56, 239-245

Perrıs, C , Holmgren, S , Von Knorrıng, L , & Perrıs, H (1986) Parental loss by death ın the early chıldhood of depressed patıents and of theır healthy sıblıngs *Brıtish Journal of Psychıatry*, 148, 165-169

Petrıe, K J , Booth, R , & Pennebaker, J W (1998) The ımmunologıcal effects of thought suppressıon *Journal of Personalıty and Socıal Psychology*, 75, 1264-1272

Petrıe, K J , Booth, R , Pennebaker, J W , Davıson, K P , & Thomas, M (1995) Dısclosure of trauma and ımmune response to hepatıtıs B vaccınatıon program *Journal of consultıng and Clınıcal Psychology,* 63, 787-792

Pfohl, B , Stangl, D , & Zımmerman, M (1984) The ımplıcatıons of DSM–III personalıty dısorders for patıents wıth major depressıon *Journal of Affectıve Dısorders*, 7, 309–318

Phıllıps KA, Hırschfeld RMA, Shea MT, & Gunderson J (1996) Depressıve personalıty dısorder, ın T A Wıdıger, A J Frances, H A Pıncus, R Ross, M B Fırst,W W Davıs, & D C Washıngton, (Ed), DSM-IV Sourcebook, (vol 2,pp 799–811) Amerıcan Psychıatrıc Assocıatıon

Phıllıps, K A , Gunderson, J G , Trıebwasser, J , Kımble, K R , Faedda, G , &

Lyoo, I K (1998) Reliability and validity of depressive personality disorder *American Journal of Psychiatry*,155,1044–1048

Pilkonis, P A , & Frank, E (1988) Personality pathology in recurrent depression Nature, prevalence, and relationship to treatment response *American Journal of Psychiatry,* 145, 435–441

Poole, M E , & Field, T W (1976) A comparison of oral and written code elaboration *Language and Speech*, 19, 302-311

Radloff, L S (1977) The CES-D Scale A new self-report depression scale for research in the general population *Applied Psychological Measurement,* 1, 385-401

Raskin, A (1986) Sensitivity to treatment effects of evaluation instruments completed by psychiatrists, nurses, and patients In N, Sartorius & T A Ban, Berlin, Heidelberg, (Ed), *Assessment of depression* (pp 367-376) New York, Tokyo Springer-Verlag

Raskin, A , Boothe, H H , Reatig, N A , Schulter- brandt, J G , & Odle, D (1971) Factor analyses of normal and depressed patients' memories of parental behavior *Psychological Reports*, 29, 871-879

Redeker, G (1984) On differences between spoken and written language *Discourse Processes*, 7, 43-55

Reed, M K (1994) Social skills training to reduce depression in adolescents *Adolescence*, 29, 293-293-302

Rehm, L P (1978) Mood, pleasant events and unpleasant events Two pilot studies *Journal of Consulting and Clinical Psychology*, 46, 849-853

Rehm, L P , Fuchs, C Z , Roth, D M , Kornblith, S J , & Romano, J M A comparison of self-control and assertion skills treatment of depression

Behavior Therapy, 10,429-442

Rehm, L P, Kaslow, N J , & Rabin, A S (1987) Cognitive and behavioral targets in a self-control therapy program for depression *Journal of Consulting and Clinical Psychology*, 55, 60–67

Rehm, L P, Kornblith, S J , O'Hara, M W , Lamparski, D M , Romano, J M , & Volkin, J An evaluation of major components in a self-control behavior therapy program for depression *Behavior Modification,* 1981, 5, 459-489

Reynolds, M , Brewin, C R , & Saxton, M (2000) Emotional disclosure in school children *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 41, 151-159

Ringlet, M H , & Bruce, B C (1982) Conversation failure In W G Lehnert & M H Ringle (Eds), *Strategies for natural language processing* (pp 203-222) Hillsdale, NJ Erlbaum Associates

Roberts, R E , & Vernon, S W (1983) The Center for Epidemiologic Studies Depression Scale Its use in a community sample *American Journal of Psychiatry*, 140, 41-46

Robin, Leake , Ronald, Friend , Nand, & Wadhwa (1999) Improving adjustment to chronic illness through strategic self-presentation An experimental study on a renal dialysis unit *Health Psychology*, 18, 54-62

Robins, C J (1990) Congruence of personality and life events in depression *Journal of Abnormal Psychology,* 99, 393-397

Robins, L N , Helzer, J E , Croughan, J & Ratcliff, K S (1981) National Institute of Mental Health Diagnostic Intervew Schedule Its history,

characteristics, and validity *Archives of General Psychiatry*, 41, 949-958

Rogers, C R (1951) *Client-centered therapy* Boston Houghton Mifflin

Rogers, C R (1980) *A way of being* Boston Houghton Mifflin

Rogers, C R (1957) The necessary and sufficient conditions of therapeutic personality change *Journal of Consulting Psychology*, 21, 95–103

Rogers, C R (1975) Empathic An unappreciated way of being *The Counseling Psychologist*, 5,2–10

Rogers, T R & Forehand, R (1983) The role of parent depression in interactions between mothers and their clinic-referred children *Cognitive Therapy and Research*,7, 315-324

Rohde, P, Lewinsohn, P M , & Seeley, J R (1991) Comorbidity of unipolar depression II comorbidity with other mental disorders in adolescents and adults *Journal of Abnormal Psychology*, 100, 214-222

Roth & Rehm (1980) Relationships among self-monitoring processes, memory, and depression *Cognitive Therapy and Research*, 4, 149-157

Roth, D , Bielski, R , Jones, J , Parker, W , & Osborn, G (1982) A comparison of self-control therapy and combined self-control therapy and antidepressant medication in the treatment of depression *Behavior Therapy*,13,133-144

Rozensky, R H , Rehm, L P, Pry, G , & Roth, D (1977) Depression and self-reinforcement behavior in hospitalized patients *Journal of Behavior Therapy and Experimental Psychiatry*, , *8*, 31-34

Rude, S S , & Burnham, B L (1993) Do interpersonal and achievement vulnerabilities interact with congruent events to predict depression? Comparison of DEQ, SAS,DAS, and combined scales *Cognitive Therapy and Research*, *17*, 531-548

Sahih Muslim Retrieved August 4, 2008, from the University of Southern California Web site http //www searchtruth com/book_display php?book=308translator=2

Saltzman, C , Luetgert, M J , Roth, C H , Creaser, J , & Howard, L (1976) Formation of a therapeutic relationship Experiences during the initial phase of psychotherapy as predictors of treatment duration and outcome *Journal of Consulting and Clinical Psychology,* 44, 546-555

Sapolsky, A (1965) Relationship between patient-doctor compatibility, mutual perceptions and outcome of treatment *Journal of Abnormal Psychology*, 70, 70-76

Schaefer, Brown, Watson, Plemel, DeMotts, Howard *et al* (1985) Comparison of the validities of the Beck, Zung, and MMPI depression scales *Journal of Consult and Clinical Psychology*, 53,415-418

Scheff, T J (2000) *Catharsis in healing, ritual, and drama* (2nd) Berkeley University of California Press

Schoutrop, M J A, Lange, A , Hanewald, G , Davidovich, U , & Salomon, H (2002) Structured writing and processing major stressful events A controlled trial *Psychotherapy and Psychosomatics*, 71, 151-157

Schwab,J J , M R , Bialon, & Holzer, C E (1967) A comparing of two rating scales for depression *Journal of Clinical Psychology*, 23, 94-96

Schwartz, L , & Drotar, D (2004) Effects of wntten emotional dısclosure on caregıvers of chıldren and adolescents wıth chronıc ıllness *Journal of Pedıatrıc Psychology*, 29, 105-118

Segal, Z V, Shaw, B F, Vella, D D , & Katz, R (1992) Cognıtıve and lıfe stress predıctors of relapse ın remıtted unıpolar depressed patıents Test of the congruency hypothesıs *Journal of Abnormal Psychology*,101, 26–36

Selıgman, M E P (1992) Helplessness On depressıon, development and death, New York W H Freeman

Selıgman, M E P, & Maıer, S F (1967) Faılure to escape traumatıc shock *Journal of Expenmental Psychology, 74,* 1-9

Shea, M Tracıe, Wıdıger, Thomas A , Kleın, & Marjorıe H (1992) Comorbıdıty of personalıty dısorders and depressıon Implıcatıons for treatment *Journal of Consultıng and Clınıcal Psychology,* 60, 857–868

Sheffıeld, D , Duncan, E , Thomson, A , & Johal, S S (2002)Wntten emotıonal expressıon and well-beıng Results from home-based study *Australasıan Journal of Dısaster and Trauma Studıes*, http//www massey ac nz/trauma/

Sloan, D M , &Marx, B P (2004a) A closer examınatıon of the structured wntten dısclosure procedure *Journal of consultıng and Clınıcal Psychology*, 72, 165-175

Sloan, D M , &Marx, B P (2004b) Takıng pen to hand Evaluatıng theorıes underlyıng the wntten dısclosure paradıgm *Clınıcal Psychology Scıence and Practıce*, 11, 121-137

Sloan, D M , Marx, B P Epsteın, E M , & Lexıngton, J M (2007) Does

Altering the Writing Instructions Influence Outcome associated with written disclosure? *Behavior Therapy*,38, 155–168

Sloan, D M , Marx, B P , & Epstein, E M (2005) Further examination of the exposure model underlying the efficacy of written emotional disclosure *Journal of Consulting and Clinical Psychology,* 73, 3, 549-554

Smith, S , Anderson-Hanley, C , Langrock, A , & Compas, B (2005) The effects of journaling for women with newly diagnosed breast cancer *Psycho-Oncology*, 14, 1075-1085

Smyth, J M (1998) Written emotional expression effect sizes, outcome types, and moderating variables *Journal of Consulting & Clinical Psychology*, 66, 174-184

Smyth, J M , True, N , & Souto, J (2001) Effects of writing about traumatic experiences The necessity for narrative structuring *Journal of Social and Clinical Psychology*, 20, 161–172

Snaith,P (1981) Rating scales *The British journal of psychiatry*,138,512-514

Solano, L , Donati, V , Pecci, F , & Persichetti, S (2003) Postoperative Course After papilloma resection effects of written disclosure of the experience in subjects with different alexithymia levels *Psychosomatic Medicine*, 65,477-488

Steer, R A , Ball, R , Ranieri, W F , & Beck, A T (1997) Further evidence for the construct validity of the Beck depression Inventory-II with psychiatric outpatients *Psychological Report,* 80, 443-446

Steer, R A , Beck, A T , & Garrison, B (1986) Applications of the Beck Depression Inventory In Norman Sartorial & Thomas A Ban (Eds), *Assessment of depression* (pp 123-142) Berlin, Heidelberg, New York,

Tokyo Springer-Verlag Published on behalf of the World Health Organization

Steer, R A , Ball, R , Ranieri, W F ,& Beck, A T , (1999) Dimensions of the Beck Depression Inventory-II in clinically depressed outpatients *Journal of Clinical Psychology* 55, 117–128

Steinmetz, J L , Lewinsohn, P M , & Antonuccio, D O (1983) Prediction of individual outcome in a group intervention for depression *Journal of Consulting and Clinical Psychology*, 51, 331-337

Steptoe A, Lipsey Z, & Wardle J (1988) Stress, hassles, and variations in alcohol consumption, food choice and physical exercise a diary study *British Journal of Health Psychology,* 3, 51–64

Stroebe, M , Stroebe, W , Schut, H , Zech, E, & van den, B J (2002) Does disclosure of emotions facilitate recovery from bereavement? evidence from two prospective studies *Journal of Consulting and Clinical Psychology*,70, 169-178

Strupp, H H & Hadley, S W (1979) Specific vs non-specific factors in psychotherapy *Archives of General Psychiatry*, 36, 1125-1136

Sunan Abu Dawud Retrieved August 4, 2008, from the University of Southern California Website ,http //www USC edu/dept/MSA/fundamentals/hadth sunnah/abudawud/038 sat html#038 4366

Swanbon, T , Boyce, L & Greenberg, M (2008) Expressive writing reduces avoidance and somatic complaints in a community sample with constraints on expression *British Journal of Health Psychology*, 13, 53-56

Tanaka-Matsumi, & Kameoka, V A (1986) Reliabilities and concurrent

validities of popular self-report measures of depression, anxiety, and social Desirability *Journal of Consulting Psychology*, 54, 328–333

Taylor, Lloyd A , Wallander, Jan L, Anderson, Deborah , Beasley, & Brown, Ronald T (2003) Improving health care utilization, improving chronic disease utilization, health status, and adjustment in adolescents and young adults with cystic fibrosis A preliminary report *Journal of Clinical Psychology in Medical Setting*, 10, 9-16

Taylor, S E (1983) Adjustment to threatening events A theory of cognitive adaptation *American Psychologist*, 38, 1161-1173

The Federal Research Division (2005) *Country Studies A Country Study Libya* Retrieved July 30, 2008, from Library of Congress web site Http //www loc gov/rr/frd/cs/lytoc html

The Qur'an Retrieved August 4, 2008, from the University of Southern California Web site http //www ucc edu/dep/MSA/quran/004 qmt html#004 019

Thoits, P A (1986) Social support as coping assistance *Journal of Consulting and Clinical Psychology*, 54, 416-423

Thomas, C M , & Morris, S (2003) Cost of Depression Among Adults in England in 2000 *The British Journal of Psychiatry, 183*, 514-519

Tyrer, P , Casey, P , & Gall, J (1983) Relationship between neurosis and personality disorder *British Journal of Psychiatry*, 142, 404–408

Verkerk, G J M , Pop, V J M , Van Son, M J M , & Van Heck, G L (2003) Prediction of depression in the postpartum period *Journal of Affective Disorders,* 77, 159–166

Warner, Lori J , Lumley, Mark A , Casey, Rita J , Pierantoni, Wayne ,

Salazar, Reina Zoratti, Edward M *et al* (2006) Health effects of written emotional disclosure in adolescents with asthma A randomized, controlled trial *Journal of Pediatric Psychology*, 3, 557-568

Weinman,J , Ebrecht, M , Scott, S , Walburn, J & Dyson, M (2008) Enhanced wound healing after emotional disclosure intervention *British Journal of Health Psychology*, 13, 95-102

West, J & AL-Kaisi, H H (1985) An Arabic validation of a depression inventory International Journal of Social Psychiatry, 31,282-289

Williams, J M (1984) *The psychological treatment of depression, A guide to theory and practice of cognitive- behaviour therapy*, Australia Croom Helm Ltd

Williamson, D E , Birmaber, B , Dahl, R , & Ryan, N D (2005) Stressful life events in anxious and depressed children *Journal of Child and Adolescent Psychopharmacology*, 15, 571-580

Wilson, P H Goldin, J C & Charbonneau-Powis, M (1983) Comparative efficacy of behavioral and cognitive treatments of depression *Cognitive Therapy and Research*,7, 111-124

Winokur, G , Black, D W , & Nasrallah, A (1988) Depressions secondary to other psychiatric disorders and medical illnesses *American Journal of Psychiatry*, 145, 233–237

Wolman, B B (1990) Preface In Benjamin B Wolman & George Stricker (Ed), *Depressive Disorders fact, theories and treatment methods* (page, ix) United States of America John Wiley & Sons, Inc

Wolman, B B , Stricker, E G , & Series (1990) *Depressive Disorders fact, theories and treatment methods* United States of America John Wiley

& Sons, Inc

Workman EA, & La Via M, F (1987) T-Lymphocyte polyclonal proliferation effects of stress and stress response style on medical students taking national board examinations *Clinical Immunology and Immunopathology,*, 308–313

Yogo, M & Fujihara,S (2008) Working memory capacity can be improved by expressive writing A randomized experiment in a Japanese sample *British Journal of Health Psychology*, 13, 77–80

Young, L D & Lewinsohn, P M (1980) The functional relationship between depression and problematic behavior *Journal of Abnormal Psychology,* 89, 333-341

Zakowski, Sandra G , Ramati, Alona , Morton, Carla , Johnson, Peter , & Flanigan, Robert (2004) Written emotional disclosure buffers the effects of social constraints on distress among cancer patients *Health Psychology*, 23, 555-563

Zeiss, A M , Lewinsohn, P M , & Munoz, R F (1979) Nonspecific improvement effects in depression using interpersonal skills training, pleasant Activity Schedules, or cognitive training *Journal of Consulting and Clinical Psychology*,47, 427-439

Zimmerman, M & Coryell, W (1987) The Inventory to Diagnose Depression (IDD) A Self-Report Scale to Diagnose Major Depressive Disorder *Journal of Consulting and Clinical Psychology,* 55, 55–59

Zimmerman, M , Coryell, W , Pfohl, B , Corenthal, C , & Stangl, D (1986) ECT response in depressed patients with and without a DSM–III personality disorder *American Journal of Psychiatry,* 143, 1030–1032

Zung, W W K (1986) Zung self-report depressıon scale and depressıon status ınventory In N, Sartorıus & T A Ban, Berlın, Heıdelberg (Ed), *Assessment of depressıon*(pp221-231) New York, Tokyo Sprınger-Verlag

Zuroff, D C , & Mongraın, M (1987) Dependency and self-crıtıcısm vulnerabılıty factors for depressıve affectıve states *Journal of Abnormal Psychology*, 96, 14-22

Zuroff, D C , Igreȷa, I , & Mongraın, M (1990) Dysfunctıonal attıtudes, dependency, and self-crıtıcısm as predıctors of depressıve mood states A 12-month longıtudınal study *Cognıtıve Therapy and Research, 14,* 315-326

Arabic References:

) دلالة صدق وثبات صورة معربة لقائمة بيك للاكتئاب مجلة مؤتة، 1998ابوطالب, صابر و ابوحجله, نعيم (
30-48المجلد السادس، العدد الثالث،

13-8) من *الاخلاق الحميدة* للاستغفار اخذت من الموقع الالكتروني للاسلام ويب بتاريخ 2008اسلام ويب (
-2008

http //www ıslamweb net/ver2/lıbrary/TreeCategary php?ID=25752

، مكتبة عبدالوكيل الدروى، دمشق2الغزالي ابوحامد (ب ت) احياء علوم الدين، ج

) تحديد بعض العوامل النفسية والاجتماعية المسببة للاصابة بالاكتئاب النفسي لدى 2005الفقهي ابديش (
المراهقين في الريف والحضر في المجتمع الليبي دراسة مقارنة بحث مقدم لنيل الدرجة الدقيقة
(الدكتوراه) غير منشورة، قسم علم نفس، كليه الدراسات العليا، جامعة جوبا

2008 -8-13) *الرقية* اخذت من الموقع الالكتروني للمكاوي بتاريخ 2008مكاوي، الحسين (
http //www mekkaouı net/ar/eroquıa htm

APPENDICES

Appendix A: Self-report measure (personal information)

Self-report measure (Personal information)

In western societies, there has been considerable research finding that emotional expression has led to beneficial changes in physical (e g , improve symptoms of asthma and rheumatoid)) and psychological (decrease anxiety, depression) health and behaviour (e g , reduce absence from work, increase performance level among students) The aim of this study is to see whether emotional disclosure is beneficial for individuals from Libya, how does it work and which is style that produces the best impacts

Please complete following information

name

age

sex education level

marital status

Tel

e-mail address

Many thanks for your cooperation

Research team

Appendix B: Beck Depression Inventory (BDI-II)

BDI-II Date

Name ______________________ Marital Status ________ Age ______ Sex ______

Occupation ______________________ Education ______________________

Instructions. This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today.** Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

1. Sadness

0 I do not feel sad.
1 I feel sad much of the time.
2 I am sad all the time.
3 I am so sad or unhappy that I can't stand it.

2. Pessimism

0 I am not discouraged about my future.
1 I feel more discouraged about my future than I used to be.
2 I do not expect things to work out for me.
3 I feel my future is hopeless and will only get worse.

3. Past Failure

0 I do not feel like a failure.
1 I have failed more than I should have.
2 As I look back, I see a lot of failures.
3 I feel I am a total failure as a person.

4. Loss of Pleasure

0 I get as much pleasure as I ever did from the things I enjoy.
1 I don't enjoy things as much as I used to.
2 I get very little pleasure from the things I used to enjoy.
3 I can't get any pleasure from the things I used to enjoy.

5. Guilty Feelings

0 I don't feel particularly guilty.
1 I feel guilty over many things I have done or should have done.
2 I feel quite guilty most of the time.
3 I feel guilty all of the time.

6. Punishment Feelings

0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished.

7. Self-Dislike

0 I feel the same about myself as ever.
1 I have lost confidence in myself.
2 I am disappointed in myself.
3 I dislike myself.

8. Self-Criticalness

0 I don't criticize or blame myself more than usual.
1 I am more critical of myself than I used to be.
2 I criticize myself for all of my faults.
3 I blame myself for everything bad that happens.

9. Suicidal Thoughts or Wishes

0 I don't have any thoughts of killing myself.
1 I have thoughts of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.

10. Crying

0 I don't cry anymore than I used to.
1 I cry more than I used to.
2 I cry over every little thing.
3 I feel like crying, but I can't.

______ Subtotal Page 1

Continued on Back

11 Agitation

0 I am no more restless or wound up than usual.

1 I feel more restless or wound up than usual.

2 I am so restless or agitated that it's hard to stay still.

3 I am so restless or agitated that I have to keep moving or doing something.

12 Loss of Interest

0 I have not lost interest in other people or activities.

1 I am less interested in other people or things than before.

2 I have lost most of my interest in other people or things.

3 It's hard to get interested in anything.

13 Indecisiveness

0 I make decisions about as well as ever.

1 I find it more difficult to make decisions than usual.

2 I have much greater difficulty in making decisions than I used to.

3 I have trouble making any decisions.

14 Worthlessness

0 I do not feel I am worthless.

1 I don't consider myself as worthwhile and useful as I used to.

2 I feel more worthless as compared to other people.

3 I feel utterly worthless.

15 Loss of Energy

0 I have as much energy as ever.

1 I have less energy than I used to have.

2 I don't have enough energy to do very much.

3 I don't have enough energy to do anything.

16 Changes in Sleeping Pattern

0 I have not experienced any change in my sleeping pattern.

1a I sleep somewhat more than usual.

1b I sleep somewhat less than usual.

2a I sleep a lot more than usual.

2b I sleep a lot less than usual.

3a I sleep most of the day.

3b I wake up 1-2 hours early and can't get back to sleep.

17. Irritability

0 I am no more irritable than usual.

1 I am more irritable than usual.

2 I am much more irritable than usual.

3 I am irritable all the time.

18 Changes in Appetite

0 I have not experienced any change in my appetite.

1a My appetite is somewhat less than usual.

1b My appetite is somewhat greater than usual.

2a My appetite is much less than before.

2b My appetite is much greater than usual.

3a I have no appetite at all.

3b I crave food all the time.

19 Concentration Difficulty

0 I can concentrate as well as ever.

1 I can't concentrate as well as usual.

2 It's hard to keep my mind on anything for very long.

3 I find I can't concentrate on anything.

20. Tiredness or Fatigue

0 I am no more tired or fatigued than usual.

1 I get more tired or fatigued more easily than usual.

2 I am too tired or fatigued to do a lot of the things I used to do.

3 I am too tired or fatigued to do most of the things I used to do.

21 Loss of Interest in Sex

0 I have not noticed any recent change in my interest in sex.

1 I am less interested in sex than I used to be.

2 I am much less interested in sex now.

3 I have lost interest in sex completely.

NOTICE [illegible]

_____ Subtotal Page 2

_____ Subtotal Page 1

_____ Total Score

Appendix C: Cognitive Restructuring Questionnaire

Cognitive Restructuring Qestionnaire

These sessions have led me to think about my circumstances differently

These sessions have made me look at life from a different perspective

These sessions have helped me to gain new understanding of my problems

These sessions have provided me with persuaded interpretations to my troubles

These sessions have provided me with a deeper understanding of my problems

These sessions have let me re-evaluate my thoughts

These sessions have made me see my concerns differently

These sessions have changed my view to the world

Appendix D: Participants Attitudes Questionnaire

(1) To what extent did you feel comfortable now

( )none ( )somewhat ( )very much

(2)) To what extent did you like engaging in this experiment

( )none ( )somewhat ( )very much

Appendix E: Judge Ratings for Participants` Cognitive Restructuring

Was their an indication to better understanding of the stressful events?

Were their new ways of looking at these events?

Were their changes in appraisals of the stressful events?

Were their changes in views of the stressful events?

Was their evidence of thinking about the stressful events in different ways?

Was their evidence of appreciating new facets of the stressful events/

Was their evidence of increasing the sense of understanding about the stressful events?

Were their different explanations mentioned?

Was their reevaluation to the stressful events?

Were their resolutions provided?

Was their analysis of the stressful events (e g , an indication to reasons and results)?

Appendix F: Judge Ratings for Manipulation Check

Do you think a listener was supportive to a speaker ?

( ) not at all ( ) somewhat ( ) most of the time ( )completely

Appendix G: Informed Consent Form

Informed Consent Form

This study is an attempt to experiment a new way to treat depression and help us to understand how this occurs Thus, your treatment with the psychotherapy will be quitted for up to five weeks but you can start it after that However, this experiment will be under your psychotherapist supervision During this study there will not be any kind of medication to use What you need to do are as follow (1) Complete three questioners in addition to an information sheet about your personal details such as name, age, gender and alike, (2) talk or write about very personal problems or upsetting experience These problems will be related to your past and present or may be to the future if you wish We would like if you could to describe your deepest thoughts and feelings surrounding the problem It is possible that you may talk to one of the research team or alone In all of these cases your voice will be recorded

In the first session you will fill out a questionnaire (in addition to personal information sheet) and then you will write or talk In the second session you will write or talk In the third session after you finish your writing or talking, you will fill out three questionnaires and you will be told the date and the time that we would like you to come This time will be after four weeks following your last session (we will contact you to remind you) During this final meeting you will come to fill out two questionnaires Then you will be thanked for taking part of this study and we will give you the opportunity to ask questions and give you a briefed sheet about the experiment in more details We will also give you one of the researcher email address if you are interested in following

the results later The first and last sessions will last about an hour (as you will write and talk, and complete the questionnaires) while the second session will take about 20 minutes (as you will only write or talk)

It is possible that you may experience some temporary troublesome feelings and may also cry these are normal and they happen as a reaction to experiencing emotional situation All you're writing and talking will be kept confidentially and may be analysed It should be noted that you will not pay fees to the clinic while you are participating in this study and your participation is voluntary and if you want to withdraw from the study at any point, you have the write to do so with no penalty, and even your writing or talking will be destroyed

If you have any question or concern about the study you can ask any member of the research team or your psychotherapist

We will keep one copy of this form with one member of the team, who her email has been written at the end of this form, after you sign it The other copy is for you to keep If you understand the information on this form and agree to take part of this study please sign in the space marked below

I am state that I would like to take part of this study voluntarily, and I understand the research aims and its conditions

Name Date Signature

Contact Information

E-mail address d Grifa@lboro ac uk

Appendix H: Debriefing Sheet

Debriefing sheet

Dear brother/sister

Many thanks for your participation in this study As mentioned, this study try to examine whether emotional expressing is beneficial for your psychological heath particularly for your depression, how does this impact occur, which is the most beneficial form of emotional expressing In fact, we hypothesized that the positive effects of emotional expression occur as a result to changing in viewing the upsetting experiences We also hypothesized that talking to someone who has different view from discloser may lead to the best change in depression and cognition As normal reaction, you may have experienced some harmful effects that you need to discuss with us please feel free to do so and also if you have any question related to this study please do not hesitate to ask Thank you again so much for your help in conducting this study

Research team