

**A Study of Depression in Attempted Suicide: Initial
Assessment, Short-term Follow-up and Prediction of
Persistent Depression**

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DECLARATION

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Anthony T. Davis

30 June 2011

DEDICATION

This thesis is dedicated to my late parents

Colleen and Edward Davis

and to

those who lost their battle with depression

and their grieving relatives.

ABSTRACT

There is but one truly serious philosophical problem and that is suicide. Judging whether life is or is not worth living amounts to answering the fundamental question of philosophy (Camus, 1942).

A Study of Depression in Attempted Suicide: Initial Assessment, Short-term Follow-up and Prediction of Persistent Depression

Depression, no matter how it is categorized, is the most common psychiatric disorder in patients who attempt suicide. However, there are conflicting views about the nature, extent and significance of depression in this group. Furthermore, there is minimal information available concerning the short term course of depression following attempted suicide and therefore the optimal clinical management of depressed suicidal patients. These patients carry a high risk for repeated attempted suicide or suicide.

The study aimed to provide a detailed analysis of several conceptualizations of depression in adults who have attempted suicide and to examine short-term changes in mood state following the suicide attempt. It further aimed to identify predictors of depression one week following attempted suicide, with a view to assisting clinicians in the initial identification of patients who could be at risk for ongoing suicidal behaviour.

To achieve these aims a three year multi-phasic study was designed, utilizing a range of measures of depression. Initially, the extent of the problem of attempted suicide at the Royal Adelaide Hospital was established and then, according to self-report measures of depression, the frequency and type of depression in the patients who had attempted suicide was defined. Having identified a cohort of suicidal patients with a depressive disorder, aspects of depression were characterized in depth, using self-report and observer rating scales and a structured clinical interview, which enabled quantification of depression severity, category, diagnosis and symptoms. A

sub-group of this cohort was followed up at one week, with a detailed examination of all measures of depression. As well, socio-demographic, clinical history and mental state variables that predicted the presence of depression at one week were identified in this group.

Depression screening of 437 patients demonstrated a high rate of depression in this group, independent of age and sex. A substantial number had features of an endogenous type depressive disorder, and only a small percentage was classified as not depressed.

The detailed study of 201 subjects revealed a significant level of psychopathology, with more than half categorized as endogenous type depression and just less than half with a DSM-III Affective Disorder. Over one week, in 128 subjects, there was a significant reduction in all measures of depression. This was however less evident in the group categorized with an endogenous type depression. This finding was independent of age but some sex differences were identified. Significant changes were observed in all DSM-III categories and all depressive symptoms. The observed reductions in depression over one week adds support to the notion of attempted suicide having a cathartic therapeutic effect in a number of suicidal individuals.

A logistic regression analysis enabled identification of a number of socio-demographic and clinical variables at initial assessment that predicted persistent depression at one week. These included female sex, being single/widowed/divorced, a history of previous depression, absence of acute psycho-social stressors, use of prescribed medication, a non-overdose method of suicide attempt, high level of

hopelessness, the presence of personality disorder, recurrent thoughts of suicide, decreased appetite, the presence of excessive / inappropriate guilt, presence of early morning waking and decrease in sexual drive.

The findings of this large study make a substantial contribution to our understanding of the phenomenology of depression in suicidal patients and the short-term course of depression following the suicidal crisis. Furthermore, the unique study design enabled identification of predictors of persistent depression in this vulnerable group, which could provide valuable assistance to clinicians engaged in the initial assessment of suicidal patients in emergency departments. Clinicians should be alert to the presence of these high-risk characteristics when assessing all suicidal patients, and make every effort to ensure that such patients receive immediate and adequate psychiatric follow-up.

A replication of findings and extension of this study could result in the development of a useful clinical protocol that could assist clinicians with the immediate assessment and short-term management of the vast number of suicidal patients presenting to hospitals in Australia.

Several elements of this study of the association between depression and attempted suicide contributed to its uniqueness. The study was multi-phasic, moving from a broad to narrow focus on depression; it utilized multiple measures to define depression; and it incorporated a measure of “endogeneity”, that proved to be useful in identifying a sub-group of patients with characteristic biological features and a relatively stable mood state.

The focus on short-term changes in depression was central to the study, as was the attempt to identify the pre- and post-suicidal mood condition of subjects. As far as I have determined from the literature review, the identification of predictors of persistent depression has not been reported by other researchers. Furthermore, the follow-up cohort of 128 patients was large when compared with all of the follow-up studies published to date.

One of the greatest challenges for clinicians in assessing attempted suicide patients is the identification of patients at risk of further suicidal behaviour, either a repeat suicide attempt or suicide. The study findings could assist with the development and formulation of early intervention strategies, aimed at reducing the morbidity and mortality of this vulnerable group of patients.

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TABLE OF CONTENTS

DECLARATION	iii
DEDICATION	v
ABSTRACT	vii
ACKNOWLEDGEMENTS	xiii
TABLE OF CONTENTS	xv
LIST OF TABLES	xxi
PREFACE	xxv
CHAPTER 1: Review of the Literature (pre 1986)	1
1.1 Introduction	2
1.2 Definition and Discussion of Terms	7
1.2.1 Attempted Suicide	7
1.2.2 Depression	8
1.3 Relationship between Attempted Suicide and Depression	17
1.3.1 Studies based on Case Record Reviews or Clinical Diagnosis.....	17
1.3.1.1 Clinical Studies before 1952	18
1.3.1.2 Clinical Studies between 1952 and 1968.....	21
1.3.1.3 Clinical Studies between 1968 and 1980.....	28
1.3.2 Studies utilizing Rating Scales.....	33
1.3.3 Studies utilizing Diagnostic Criteria and/or Structured Clinical Interviews.....	38
1.4 The Course of Depression following Attempted Suicide- Short Term Follow-Up	42
1.5 Other Clinical Factors associated with Attempted Suicide.....	46
1.5.1 General discussion	46
1.5.2 Personality disorder.....	47
1.6 The Sequelae of Attempted Suicide	59
1.6.1 Repetition of Attempted Suicide	59
1.6.2 Suicide.....	62

CHAPTER 2: Outline of the Study	65
2.1 Aims and hypotheses	66
2.1.1 Introduction	66
2.1.2 Specific aims.....	67
2.1.3 Hypotheses.....	68
2.2 Methods.....	70
2.2.1 The setting of the study	70
2.2.2 Ethical considerations	70
2.2.3 Broad design	70
2.2.4 Phase One: Survey of attempted suicide	71
2.2.5 Phase Two: Screening for depression	72
2.2.6 Phase Three: Initial clinical assessment – T ₁ (the Initial Study Group)	74
2.2.6.1 Eligibility.....	74
2.2.6.2 The setting of the interview.....	75
2.2.6.3 The interview	75
2.2.6.4 Mental State Examination.....	77
2.2.6.5 Administration of questionnaire.....	78
2.2.6.6 Observer ratings.....	78
2.2.6.7 Scoring of questionnaires	79
2.2.7 Phase Four: Follow-up assessment – T ₂ (the Follow-up Group)	80
2.2.8 Rating Scales	81
2.2.8.1 Zung Self-Rating Depression Scale (SDS).....	81
2.2.8.2 Levine-Pilowsky Depression (LPD) Questionnaire	82
2.2.8.3 Hopelessness Scale (HS).....	84
2.2.8.4 Mini Mental State Examination (MMSE)	84
2.2.8.5 Suicide Intent Scale (SIS)	85
2.2.8.6 Hamilton Rating Scale for Depression (RSD).....	86
2.2.9 Statistical Analysis.....	87
CHAPTER 3: Results	91
3.1 Phase One: Survey of attempted suicide	92

3.2 Phase Two: Screening for Depression	96
3.2.1 Depression ratings	96
3.2.1.1 Zung SDS	96
3.2.1.2 LPD Questionnaire	97
3.2.2 Non-screened group	98
3.3 Phase Three: Initial clinical assessment – T ₁ (Initial Study Group)	100
3.3.1 Subjects	100
3.3.2 Socio-demographic characteristics of the Initial Study Group	100
3.3.3 Clinical history details of Initial Study Group	101
3.3.4 The evaluation of depression in the Initial Study Group	101
3.3.4.1 Depression severity	101
3.3.4.2 Depression categories	103
3.3.5 DSM-III Diagnoses of Initial Study Group	105
3.3.5.1 DSM-III Axis I Diagnoses (Clinical syndromes)	105
3.3.5.2 DSM-III Axis I sub-groups	105
3.3.5.3 DSM-III Diagnoses: Axis II-V	107
3.3.6 Psycho-social stressors	107
3.3.7 Depressive symptom profile	107
3.4 Phase Four: Follow-up assessment – T ₂ (Follow-up Group)	109
3.4.1 Socio-demographic characteristics	109
3.4.2 Clinical history details of Follow-up Group	109
3.4.3 Further clinical details of Follow-up Group	109
3.4.3.1 Inpatient/outpatient status	109
3.4.3.2 Professional contact	110
3.4.3.3 Medication status	110
3.4.4 Clinical ratings of the Follow-up Group at first interview (T ₁)	110
3.4.4.1 Suicide intent	110
3.4.4.2 Medical lethality	110
3.4.4.3 Impulsivity	111
3.4.4.4 Hopelessness	111

3.4.5 Comparison of Follow-up Group and Non Follow-up Group	111
3.5 The evaluation of depression in the Follow-up Group at T ₁ and T ₂	112
3.5.1 Depression severity.....	112
3.5.2 Socio-demographic, clinical and state variables in relation to depression at T ₁	115
3.5.3 Depression categories.....	119
3.5.4 Sex and Age analyses of LPD data.....	121
3.5.4.1 Sex - Males	122
3.5.4.2 Sex - Females.....	124
3.5.4.3 Age < 30	126
3.5.4.4 Age ≥ 30	128
3.5.5 DSM-III Diagnoses of Follow-up Group.....	130
3.5.5.1 DSM-III Axis I Diagnoses (Clinical syndromes)	130
3.5.5.2 DSM-III Axis I sub-groups	132
3.5.6 Sex and Age Analyses of DSM-III Diagnostic Data.....	134
3.5.6.1 Sex - Males	135
3.5.6.2 Sex - Females.....	137
3.5.6.3 Age < 30	139
3.5.6.4 Age ≥ 30	141
3.5.7 DSM-III Axis II Diagnoses (Personality disorder)	143
3.5.8 DSM-III Axis III (Physical disorders)	143
3.5.9 DSM-III Axis IV (Severity of psycho-social stressors).....	143
3.5.10 DSM-III Axis V (Highest level adaptive functioning in past year)	144
3.5.11 Psycho-social stressors.....	145
3.5.12 Depressive symptom profile of Follow-up Group.....	147
3.6 The prediction of depression one week following a suicide attempt.....	149
3.6.1 Introduction	149
3.6.2 The predictor model	149
3.6.3 Results	151
3.6.4 Symptom variables.....	154

3.6.5 The combination of socio-demographic/clinical/state variables and symptom variables.....	156
CHAPTER 4: Discussion of Findings and Literature Review.....	159
4.1 Phase One: Survey of attempted suicide.....	160
4.1.1 General findings.....	160
4.1.2 Review of Australian literature – and extension of survey.....	162
4.2. Phase Two: Screening for depression.....	165
4.2.1 General findings.....	165
4.2.2 Measures of depression	166
4.2.3 Extension of study	168
4.3 Phase Three: Initial clinical assessment (the Initial Study Group).....	169
4.3.1 General considerations.....	169
4.3.2 General findings.....	171
4.3.3 Depression measures.....	171
4.3.4 DSM-III findings.....	179
4.3.5 Depressive symptoms.....	182
4.3.6 Discussion	183
4.3.6.1 Hospital-Based Studies	183
4.3.6.2 Summary of studies	197
4.3.6.3 Population-Based Studies.....	198
4.4 Phase Four: Follow-up assessment (the Follow-up Group).....	200
4.4.1 General considerations - study design	200
4.4.2 General findings.....	201
4.4.2.1 Medication status and inpatient/outpatient status.....	205
4.4.3 Depression Severity	206
4.4.4 Associations with depression at initial assessment (T ₁)	207
4.4.5 Depression Categories	209
4.4.6 DSM-III Diagnosis.....	211
4.4.7 Depressive Symptoms.....	213

4.4.8 General discussion of findings	213
4.4.9 The course of depression following attempted suicide - catharsis and beyond	217
4.4.10 The prediction of depression at follow-up	230
4.5 Concluding comments	233
4.5.1. Study findings, limitations of study and future research directions.....	233
4.5.2. Current concepts of depression and the significance of 'endogeneity'	237
4.5.3. The importance of identifying and managing depression in suicidal patients	242
4.5.4 Summary	245
REFERENCES	247
APPENDICES	273
Appendix A Scientific Publications	275
Appendix B	325
Information Sheet for Research Patients and Consent Form	325
Appendix C Data Collection Protocols	329
Appendix D DSM-III Diagnostic Assessment	347
Appendix E Rating Scales	353
Appendix F Survey of Attempted Suicide	365
Appendix G Screening for Depression	369
Appendix H Initial Study Group.....	373
Appendix I Follow-up Group	391
Appendix J Relationship between socio-demographic, clinical and state characteristics and depression at T1.....	403
Appendix K Relationship between socio-demographic, clinical and state characteristics and depression at T ₂	415

LIST OF TABLES

Table 1.1 Psychological Autopsy Studies, 1959 – 1986	6
Table 1.2 Contemporary classifications of depression Part A: Simple Typologies	12
Table 1.2 Contemporary classifications of depression Part B: Tiered Typologies	13
Table 1.2 Contemporary classifications of depression Part C: Dimensional Systems	14
Table 1.3 Depression and Attempted Suicide: Clinical Studies, 1952 - 1968.....	24
Table 1.4 Depression and Attempted Suicide: Clinical Studies, 1968-1980	31
Table 1.5 Studies of Personality Disorder in Attempted Suicide (pre 1952)	50
Table 1.6 Studies of Personality Disorder in Attempted Suicide (1952-1968)	51
Table 1.7 Studies of Personality Disorder in Attempted Suicide (1968-1986)	53
Table 1.8 Personality Characteristics of Attempted Suicides.....	54
Table 3.1 Frequencies of patients presenting to the A & E Department of the RAH, 1986 - 1988.....	93
Table 3.2 Survey of Attempted Suicide – by year, sex and five year age groups	94
Table 3.3 SDS Index of Screened Group (n=435).....	96
Table 3.4 LPD categories of Screened Group (n=425)	98
Table 3.5 Mean depression scores (with SD) of Initial Study Group (n=201), by sex.....	102
Table 3.6 Mean depression scores (with SD) of Initial Study Group, by age group	102
Table 3.7 LPD categories of Initial Study Group, by sex*	103
Table 3.8 LPD categories of Initial Study Group, by age group	103
Table 3.9 DSM-III diagnostic sub-groups of Initial Study Group, by sex	106
Table 3.10 DSM-III diagnostic sub-groups of Initial Study Group, by age group	106
Table 3.11 Initial Study Group - Rank-order frequency of symptoms reported pre suicide attempt.....	108
Table 3.12 Mean depression scores (with SD) of Follow-up Group (n=128) at T ₁ and T ₂ , by sex	113
Table 3.13 Mean depression scores of Follow-up Group at T ₁ and T ₂ , by age group	115

Table 3.14 Socio-demographic variables associated with depression and suicidal behaviour	116
Table 3.15 Clinical history variables associated with depression and suicidal behaviour ...	116
Table 3.16 State variables associated with depression and suicidal behaviour	117
Table 3.17 LPD categories of Follow-up Group (n=127) at T ₁ and T ₂ , with changes in proportions (ΔP) and 95% confidence intervals (CI) for changes	119
Table 3.18 Comparison of LPD categories of Follow-up Group at T ₁ and T ₂	120
Table 3.19 Stability of LPD “non-endogenous” and “endogenous” categories over one week for Follow-up Group.....	121
Table 3.20 LPD categories of males (n=51) at T ₁ and T ₂ , with changes in proportions (ΔP) and 95% confidence intervals (CI) for changes	122
Table 3.21 Comparison of LPD categories of males at T ₁ and T ₂	122
Table 3.22 Stability of LPD “non-endogenous” and “endogenous” categories over 1 week for males.....	123
Table 3.23 LPD categories of females (n=76) at T ₁ and T ₂ , with changes in proportions (ΔP) and 95% confidence intervals (CI) for changes.....	124
Table 3.24 Comparison of LPD categories of females at T ₁ and T ₂	124
Table 3.25 Stability of LPD “non-endogenous” and “endogenous” categories over one week for females	125
Table 3.26 LPD categories of age group < 30 (n=60) at T ₁ and T ₂ , with changes in proportions (ΔP) and 95% confidence intervals (CI) for changes	126
Table 3.27 Comparison of LPD categories of age group < 30 at T ₁ and T ₂	126
Table 3.28 Stability of LPD “non-endogenous” and “endogenous” categories over one week for age group <30.....	127
Table 3.29 LPD categories of age group ≥ 30 (n=67) at T ₁ and T ₂ , with changes in proportions (ΔP) and 95% confidence intervals (CI) for changes	128
Table 3.30 Comparison of LPD categories of age group ≥ 30 at T ₁ and T ₂	128
Table 3.31 Stability of LPD “non-endogenous” and “endogenous” categories over one week for age group ≥ 30.....	129
Table 3.32 DSM-III Axis I diagnoses of Follow-up Group	131
Table 3.33 DSM-III diagnostic sub-groups of Follow-up Group (n=128) at T ₁ and T ₂ , with changes in proportions (ΔP) and 95% confidence intervals (CI) for changes.....	132

Table 3.34 Comparison of DSM-III categories of Follow-up Group at T₁ and T₂	133
Table 3.35 Stability of DSM-III categories (AD and ADDM) over one week for Follow-up Group.....	134
Table 3.36 DSM-III categories of males (n=52) at T₁ and T₂, with changes in proportions (ΔP) and 95% confidence intervals (CI) for changes	135
Table 3.37 Comparison of DSM-III categories of males at T₁ and T₂.....	135
Table 3.38 Stability of DSM-III categories (AD and ADDM) over one week for males	136
Table 3.39 DSM-III categories of females (n=76) at T₁ and T₂, with changes in proportions (ΔP) and 95% confidence intervals (CI) for changes	137
Table 3.40 Comparison of DSM-III categories of females at T₁ and T₂.....	137
Table 3.41 Stability of DSM-III categories (AD and ADDM) over one week for females	138
Table 3.42 DSM-III categories of age group < 30 (n=60) at T₁ and T₂, with changes in proportions (ΔP) and 95% confidence intervals (CI) for changes	139
Table 3.43 Comparison of DSM-III categories of age group < 30 at T₁ and T₂	139
Table 3.44 Stability of DSM-III categories (AD and ADDM) over one week for age group < 30	140
Table 3.45 DSM-III categories of age group ≥ 30 (n=68) at T₁ and T₂, with changes in proportions (ΔP) and 95% confidence intervals (CI) for changes	141
Table 3.46 Comparison of DSM-III categories of age group ≥ 30 at T₁ and T₂	141
Table 3.47 Stability of DSM-III categories (AD and ADDM) over one week for age group ≥ 30	142
Table 3.48 DSM-III Axis II Diagnoses (Personality Disorders)	143
Table 3.49 DSM-III Axis IV (Severity of psycho-social stressors)	144
Table 3.50 DSM-III Axis V (Highest level adaptive functioning in past year).....	144
Table 3.51 Acute and non-acute stressors of the Follow-up Group	146
Table 3.52 Depressive symptom profile: change in rank-order frequency of symptoms from T₁ to T₂	148
Table 3.53 Socio-demographic and clinical variables that are potentially associated with depression at T₂, according to the LPD analysis.....	150
Table 3.54 Socio-demographic and clinical variables that are potentially associated with depression at T₂, according to the Hamilton RSD analysis	151

Table 3.55 Stepwise logistic regression - summary table of socio-demographic and clinical variables (LPD Endogenous = dependent variable)	152
Table 3.56 Stepwise logistic regression - summary table of socio-demographic and clinical variables (Hamilton RSD 18 or above = dependent variable).....	153
Table 3.57 Socio-demographic and clinical predictors of depression at 1 week	154
Table 3.58 Stepwise logistic regression - summary table of symptom variables (LPD Endogenous = dependent variable).....	155
Table 3.59 Summary table of symptom variables (Hamilton 18 or above = dependent variable)	155
Table 3.60 Stepwise logistic regression - summary table of combined variables (LPD Endogenous = dependent variable).....	156
Table 3.61 Stepwise logistic regression - summary table of combined variables (Hamilton 18 or above = dependent variable).....	157
Table 3.62 Socio-demographic, clinical and symptom predictors of depression at one week	158

PREFACE

Suicide attempts have many meanings and, whatever their level or lethality, ought to be taken seriously. A person who attempts suicide because he believes that there is no use living may not necessarily mean that he wants to die but that he has exhausted the potential for being someone who matters (Shneidman, 1976).

A Study of Depression in Attempted Suicide: Initial Assessment, Short-term Follow-up and Prediction of Persistent Depression

This study was carried out between 1986 and 1998, whilst I was working as a Consultant Psychiatrist in the Consultation-Liaison Service at the Royal Adelaide Hospital (RAH). During this time I had a particularly active role in the assessment and management of suicidal patients presenting to the hospital.

Prior to the study, I carried out an extensive literature review of studies published before 1986, examining many aspects of suicidal behaviour, with a particular focus on the relationship between suicide, attempted suicide and depression.

With the assistance of five successive research grants, from the Royal Adelaide Hospital, the University of Adelaide and the National Health and Medical Research Council, I was able to complete the multi-phasic study over the three year period. Data compilation and analysis followed, between 1988 and 1992.

This gave rise to many conference presentations and six publications, being three publications in peer reviewed journals and three invited chapters in books, derived from proceedings of international scientific meetings of the International Association for Suicide Prevention (IASP).

The first publication entitled "*Depression and attempted suicide: a comparative study*" was published in the Australian New Zealand Journal of Psychiatry (Davis, 1989). This paper arose from Phase 2 of the study and a comparison of depression in 176 patients admitted to the RAH following a suicide attempt and 65

psychiatric patients admitted to the psychiatric unit with a diagnosis of Major Affective Disorder during the same period.

The second publication, entitled *“Short term course of depression following attempted suicide: a preliminary report”*, was published in *Acta Psychiatrica Scandinavica* (Davis, 1990). This paper outlined the preliminary findings of this research project, based on an analysis of the first 56 subjects who completed Phase 4 of the follow-up study.

A third publication, entitled *“Attempted suicide in Adelaide and Perth: changing rates for males and females, 1971-1987”*, was published in the *Medical Journal of Australia* (Davis & Kosky, 1991). This was derived from the survey data collected in Phase 1 of the study between 1986 and 1988. These data were compared with official data recorded by the South Australian Health Commission over that time as well as an official data base of attempted suicide rates in Perth over two periods of time.

A fourth publication, entitled, *“Attempted suicide and depression: initial assessment and short term follow-up”*, was published in the book *“Impact of Suicide”* (Ed. Mishara, 1995). This publication was based on a paper presented at the 17th International Congress of IASP in Montreal in 1993 and described details of the 128 subjects who completed Phase 4 of this study and who were the central focus of this thesis.

A fifth publication, entitled *“Depression, hopelessness and suicide intent in attempted suicide: a hospital-based study of 201 patients”*, was published in the book

“Suicide Prevention. A Holistic Approach” (Eds. De Leo et al., 1998). This was based on a paper presented at the 18th International Congress of IASP in Venice in 1995. It explored the complex relationship between the degree of depression, hopelessness and suicide intent, using observer and self-report rating scales, in the 201 patients who made up Phase 3 of the study.

A sixth publication, entitled *“Depression and attempted suicide: a hospital-based study of 437 patients”*, was derived from a paper presented at the 19th International Congress of IASP in Adelaide in 1997. This paper, published in the book *“Suicide Prevention. The Global Context”* (Eds. Kosky et al., 1998), was based on findings of the Phases 1 and 2 of the study.

These six papers are attached in Appendix A.

For several reasons, including a significant career change, I did not complete the thesis write-up until 2011. Over those years, I have maintained a keen interest in the area of suicidology, being actively involved in the ongoing management of suicidal patients in public hospital and private practice settings, as well as undergraduate and postgraduate medical and psychiatric education in this area. For more than two decades I have been an adviser on suicide to the South Australian Coroner and I have also maintained an active role in IASP, currently being the General Secretary.

I have also regularly reviewed the attempted suicide literature, particularly that focussing on clinical aspects of suicidal behaviour. I have noted that despite ongoing studies of the relationship between attempted suicide and psychiatric disorders, there has been a relative paucity of studies focussing specifically on the issue of depression and attempted suicide. I have noted that only a small number of

studies have examined the short-term follow-up of suicidal patients and changes in mental state, particularly mood state, following a suicidal crisis. I have not identified any studies since the late 1980's that have provided a multi-dimensional appraisal of depression in this group or a focus on the prediction of persistent depression following attempted suicide.

I consider that these issues are still very relevant to clinical practice. Given that a vast number of patients continue to present to busy Accident & Emergency Departments in Australian hospitals on a daily basis, and that health services are increasingly challenged by finite resources, clinicians are constantly seeking guidelines in relation to the optimal assessment and management of suicidal patients. They are particularly concerned about the identification of individuals who remain at risk for ongoing depression or other psychiatric disturbance, recurrence of attempted suicide or suicide. Research findings and clinical experience continue to indicate that depression underpins the significant morbidity and mortality associated with this vulnerable group.

With these factors in mind, I decided to complete this thesis, as the unique focus and depth of the study may well contribute to an improved understanding of the psychopathology of suicidal patients, as well as the development of important guidelines for the identification of high-risk individuals who require close follow-up following attempted suicide. This could potentially have an impact on resource allocation in psychiatric services. In the long term, this will hopefully provide a valuable contribution to the early intervention and prevention of suicide.

Given the long time between the design and conduct of the study and this written presentation, the thesis will be presented in the following chapters:

1. A review of the literature prior to 1986. This will highlight the studies that shaped the evolution and construction of the study that is the subject of this thesis.
2. An outline of the study aims, hypotheses, methods, instruments and statistical analyses.
3. A report of the study results.
4. Discussion of the study findings in the light of relevant contemporaneous and subsequent publications. The post-1986 literature that is pertinent to the topic of depression in attempted suicide and issues raised by the study will be outlined, as will suggestions about further studies that may expand upon this topic.